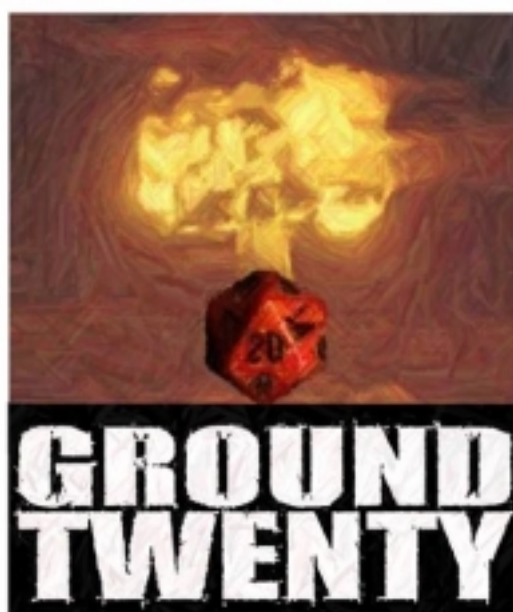


CIVIL20

Revision 3.0



REQUIRES THE USE OF THE D20 MODERN™ ROLEPLAYING GAME, PUBLISHED BY WIZARDS OF THE COAST, INC.

INTRODUCTION

The CYD20 Project

Ecosystems collapse - deadly new viruses plague humanity - offworld colonies provide a refuge to the wealthy - megacorporations handle the real power in the world - the Internet virtual reality extends across the globe and the colonies - man fuses with machine, using cybernetic implants and genetic modifications to become superhuman and achieve immortality.

This is cyberpunk, science fiction at its best and darkest. Pioneered by writers like William Gibson and Philip Dick and by cult movies like *Blade Runner*, the cyberpunk genre is about a dark future - a future not as far away as we would like to believe.

The **CYD20** project is a giant sourcebook intending to bridge the cyberpunk genre with the d20 system, effectively allowing you to stage cyberpunk campaigns using your favorite game system. It attempts to deal with all different aspects of cyberpunk: characters, equipment, hacking and computers, cyberware and bioware etc. No game world details are provided in CYD20; the book is a collection of rules and mechanics to be used in your own campaigns. Rather than limiting you within the borders of the author's fantasy, it allows you to stage any cyberpunk campaign you want, from *Blade Runner* to the *Neuromancer*.

Layout and Formatting

The book uses a formatting system of bracketed text to provide you with game information, while the description on which the rules are based is usually presented above the brackets. Descriptions are important for you to realize the logic upon which the rules are based and also because a book full of rules and rules only would be very boring. To understand the concept of the bracketed text, let's examine the following short section, which presents shotguns.

Shotguns are smooth-bore weapons made for close range mayhem. Originally, shotguns could only fire buckshot, a load of numerous small pellets which disperse after leaving, thereby greatly increasing the chances of a hit (at least in close range). At close range buckshot is deadly against a soft target, able to carve a hole through a man, but the pellets are especially ineffective against armor or hard targets and they rapidly lose lethality as range increases. Modern shot guns are also able to fire slugs. Slugs are solid projectiles resembling the bullets fired by conventional firearms. They are large and powerful but rather inaccurate as the shotgun's barrel lacks any rifling.

[Shotguns require the personal firearms proficiency feat. A shotgun firing buckshot has critical range 17-20. Buckshot gives a +1 circumstance bonus to attack rolls, but loses 1 point of damage per full range increment. Buckshot inflicts 50% secondary damage but triples the ballistic resistance of an armor and doubles the hardness of an object.]

[A shotgun firing slugs has critical range 20. Slugs don't get any of the advantages or disadvantages of buckshot.]

In this example, the first paragraph provides a general description of shotguns without any game rules. The following two paragraphs contain text inside brackets that describes the rules for shotguns. The justification for these rules can be found in the description provided in the beginning of the section.

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SECTION ONE

LOCK AND LOAD

COMBAT RULES

Armor Resistance and Non-proficiency Penalty

Armor in CYD20 doesn't make you harder to be hit, but it absorbs damage from the attacks which hit you, even to the point where no harm is done (that's actually how armor is supposed to work). Most types of armor are good for protecting against some attacks but useless against others; rare is the armor which defends against any damage the user can possibly receive.

[An armor doesn't give a bonus to Defense, but has at least one (and possibly more) resistance level. An armor's resistance is the amount of damage the wearer ignores from an attack (much like hardness). Each type of resistance works only against one type of damage, so there is ballistic resistance, fire resistance, slashing resistance etc. Many armors have more than one type of resistance, possibly at different levels, for example ballistic resistance 4 and piercing resistance 2.]

[Some attacks, like explosions or flamers, give the target a chance to take half damage with a successful saving throw (most often a Reflex save). In this case, armor resistance applies first and then the remaining damage is halved. For example, someone wearing an armor with concussion resistance 5 taking 15 points of damage from a concussion grenade would only lose $(15-5):2=5$ hit points with a successful saving throw.]

[Armor resistance isn't affected by the lack of armor proficiency. However, someone who dons armor without having the appropriate armor proficiency feat doubles the usual armor penalty. Even armors that don't usually have an armor penalty give at least a -2 penalty to a non-proficient character.]

Equipment Templates

Many of the weapons and armor found in this sourcebook are based on **templates**. A template is a set of rules and statistics defining something rather common, for example the concept of a heavy autoloading pistol or a light armored vest. Specific weapons and armor are based on a

template, perhaps with some slight variations. For example, the Desert Eagle and the Colt Slammer are both heavy handguns, so they are both based on the Heavy Autoloader template. The difference between these weapons can be found in slight variations with the template's statistics or in some add-on accessories they have, but in general choosing one or the other is mostly a matter of style.

Templates serve the following purposes:

- They keep information tidy and concentrated in one section rather than repeating it over and over again for different weapons. You know that all shotguns follow the rules presented for the shotgun template. Imagine if it was necessary to repeat the same rules for every different shotgun model!
- They can be used to easily design your own weapons, if you like so. Simply select a template and make the adjustments or add the extra accessories you want your weapon to have and, voila!
- They can be used to quickly equip NPC characters. Instead of pondering over whether to give a security guard a Beretta 2K22F or a Glock 17, simply give him a medium autoloader!

Equipment that is based on a template usually follows all rules for the template, unless otherwise noted in the equipment's detailed description.

Extra Damage and Hard Targets (Optional)

[This optional rule is intended for those who wish to add a little more realism to special attacks that allow for a weapon to deal extra damage. Such cases include critical hits, burst fire, use of the double tap feat and the gunslinger's bullseye ability among others. The problem with extra damage is that they allow light weapons to penetrate tough objects and heavy armor. A 9mm submachine gun for example, cannot penetrate a tank's armor (hardness 20) with a single bullet, but on burst fire (4d6

Recoil: The Easy Way

[If the rules about recoil require too much bookkeeping for your sake, you can simply ditch the Recoil pool system and just inflict a penalty equal to the weapon's Recoil Level whenever someone takes a single shot with it, or twice the Recoil Level when used for burst fire or autofire. This system is more generous towards those relying on firearms, since it will not result in as great penalties and the loss of actions, but it is also far simpler and faster.]

damage) it might be able to do so, thus being capable of destroying a tank if enough bursts are fired (something completely absurd). Armor is effective against any number of bullets fired (within reasonable limits); if it can stop one bullet it can certainly stop three as well.]

[Instead of increasing the hardness of objects or the resistance of armors, something that penalizes single shot weapons without a good reason, you can use the following simple rule: Whenever a case where extra damage is dealt is brought up, roll first that weapon's normal damage. If this damage manages to penetrate the target's hardness or armor resistance (inflicting even a single point of damage), add the extra damage. If the initial damage is stopped, the extra damage is negated as well.]

[Example 1: A submachine gun (damage 2d6) fires a burst against an armored limo (hardness 10). A 2d6 damage roll is made with a result of 8; the attack doesn't result in any damage and the extra burst damage is negated.]

[Example 2: The same submachine gun fires another burst at the same limo. A 2d6 damage roll results in 11. One point of damage gets past the limo's hardness, but this is enough to allow for the extra burst damage (another 2d6) to be rolled. The second damage roll results in 8, so the limo suffers 8+1=9 points of damage.]

Firearm Recoil

Every action has a reaction. As the bullet fired from a gun leaves the muzzle at high velocities, the gun is pushed backwards with an equal force. This basic principle, along with some factors based on the mechanical action of the weapon, produces what is known as recoil: the kickback experienced by the user and the tendency of the muzzle to "climb up" after each shot. Apart from the discomfort heavy recoil causes, it is also responsible for the need to

re-align the gun with its target after each shot. The recoil of a weapon depends on its mass and the type of ammunition fired. Small weapons firing heavy rounds produce the greatest recoil. Although recoil is mostly experienced when firing automatic weapons, it can also become a factor when taking quick shots with semi-automatic firearms, as the gun tends to lose its alignment with the target after each successive shot, requiring the user to spend some time realigning it (time he might not have in the thick of a firefight). Recoil can be countered by using devices like muzzle brakes, bipods or tripods; strong persons are also more adept at handling recoil than others.

[Every firearm in which recoil might present a problem has a Recoil level, which typically gives a penalty to the attack roll. During a firefight, such weapons also have a Recoil pool, which shows how adversely recoil affects the weapon's accuracy and depends on how you use the weapon. This pool gives a penalty to all attack rolls made with the weapon, so if there are 3 points in the Recoil pool you have a -3 penalty to all attack rolls with the weapon. Note that each weapon has its own Recoil pool; do not add the Recoil pool for different weapons together. The Recoil pool of a weapon is affected in the following ways:]

[1. At the beginning of a combat, the Recoil pool for all weapons is always 0.]

[2. If you fire one shot from the weapon, you make an attack roll and then add a number of points equal to its Recoil level to the Recoil pool. In other words, your next shot becomes more difficult to hit with.]

[3. If you fire a weapon in burst fire or autofire, you immediately add a number of points equal to twice its Recoil level to the Recoil pool before making the attack roll (so that your attack roll is affected by the new total).]

[4. Just before your first action in a new round, the Recoil pools of all your weapons are reset to zero, as it is assumed that you spend some time realigning the guns.]

[5. You can also reset the Recoil pool of a weapon to zero by taking some time to realign it with the target. This requires either a move action or forfeiting one of your attacks for that round (if you have multiple attacks, you can forfeit one of them to reset the Recoil pool), although you can't forfeit an attack with a weapon in your off-hand to reset the pool of your primary weapon and vice versa.]

[The attack penalty resulting from the Recoil pool is always reduced by your Strength bonus, although a Strength penalty will not increase it. The use of equipment, like muzzle brakes or bipods, and some feats can

also reduce this penalty. All factors reducing recoil penalties are cumulative with one another, unless otherwise stated.]

[If a weapon is small enough to be wielded with one hand but the user wields it two-handed, recoil penalties are reduced by 1 point. Vehicle-mounted weapons do not suffer from recoil penalties, since the vehicle absorbs all recoil stresses.]

[Note that these rules for recoil replace the -4 penalty for making burst fire attacks using the burst fire feat.]

[Example of how recoil works: Let's take the case of a character with Strength 14 (+2 modifier) using a heavy submachine gun (recoil 2) equipped with a muzzle brake (which reduces recoil penalties by 1) and a light machine pistol (recoil 1) in his off-hand. Our hero is of sufficient level to be able to make 4 attacks per round with his primary weapon and also has the two-weapon fighting and improved two-weapon fighting feats (giving him 2 attacks with the off-hand weapon). When his turn to act in the round comes, he takes a full-attack action to make use of all of his available attacks. His first set of attacks consists of a burst from the SMG and a single shot from the machine pistol. The Recoil pool of his SMG immediately receives 4 points (twice the gun's recoil) and he suffers a -1 penalty to the attack roll (his Strength and the muzzle brake reduce the recoil penalty by 3). His machine pistol attack doesn't suffer any penalty, but afterwards he adds 1 point to its Recoil pool. His second set of attacks is a single shot with the SMG and autofire with the machine pistol. The SMG continues to suffer the -1 penalty and after the attack roll 2 more points are added to the Recoil pool. His machine pistol's pool increases to 3; this gives him a -1 penalty (his Strength reduces the -3 penalty to 2). Now that he has exhausted his machine pistol attacks, he can only use the SMG for the remaining 2 attacks in the round. He wants to use the SMG for autofire, but notes that this would result in a -7 penalty (the Recoil pool was 6 and it will be increased by 4 more points). He prefers to forfeit this attack, resetting the pool to 0 and make his last attack for the round with a -1 penalty.]

Longarms in Close Combat

Longarms have not been made for use in close combat and, because of their size, are difficult to use when sur-

rounded by opponents.

[Ranged weapons of Large size or larger take a -4 penalty to attack rolls when used to fire at an adjacent opponent.]

Greater Lethality (Optional)

A cyberpunk setting is less heroic than, say, an action adventure sage. Characters are more ordinary people and less heroes, and this means that they can easily die during a firefight. In fact, cyberpunk is not hack and slash with guns instead of swords and rockets instead of fireballs. Even though this section is about weapons, it is assumed that the equipment described here will only be used by the players if there is no other option available. If you want your players to explore all possible options instead of just rushing in with guns blazing, one way is to make combat more lethal (both for them and their opponents). In this way, they will prefer to outsmart their opponents rather than outgun them.

[There are some ways to increase the lethality in a low-heroism cyberpunk setting. One of them is to take the Massive Damage Threshold down to 10 for all characters regardless of Constitution. This will increase the chances that a character is threatened by massive damage. Characters with high Constitution will still have an advantage because of the Fortitude bonus that will allow them not to be dropped. Another way (which can be combined with the previous mechanism) is to scale the Fortitude save DC for massive damage. You could rule that for every 5 points of damage a character suffers over his Massive Damage Threshold, the DC is increased by 2. Thus, a character with Constitution 15 suffering 30 points of damage would have to save against DC 21 instead of 15. Suddenly, those .50 caliber heavy machine guns seem so much dangerous...]

Secondary Damage

Some weapons, including among others shotguns firing buckshot, needlers, flechettes grenades etc, cause massive trauma against "soft" targets (ie targets without armor protection or soft objects) but are lousy at penetrating hard materials and thus are very ineffective against "hard" targets (targets with armor or hard objects).

[Such weapons cause a percentage of secondary damage. The exact percentage varies from weapon to weapon, but the effects are the same: after armor resistance or an object's hardness is applied, any remaining damage is increased by the listed percentage. Weapons inflicting secondary damage will typically boost an armor's resistance or an object's hardness, becoming very hard to penetrate them. The following examples should help understand the concept of secondary damage.]

[Example 1: A civilian wearing no armor is hit by a shotgun firing buckshot for 15 points of damage. Buckshot deals 50% secondary damage but triples an armor's ballistic resistance. As the character wears no armor, the takes $15 \times 1.5 = 22$ points of damage.]

[Example 2: A thug wearing an armored jacket (giving ballistic resistance 3), is hit by buckshot for the same amount of damage (15 points). Buckshot triples the armor's ballistic resistance to level 9, so that the damage that remains is $15 - 9 = 6$ points. This damage is increased by 50%, so the thug finally loses $6 \times 1.5 = 9$ hit points. Note that if the thug was hit by a shotgun slug (which doesn't have secondary damage and doesn't increase ballistic resistance) he would have lost $15 - 3 = 12$ hit points.]

[Example 3: A security officer wearing a fiber vest (giving ballistic resistance 6) is hit by buckshot for 15 points of damage. The armor's resistance triples to 18, absorbing all the buckshot damage. Because there is no damage remaining after ballistic resistance applies, there is also no secondary damage. If the officer was hit by a slug doing 15 points of damage, he would have lost $15 - 6 = 9$ hit points.]

The Importance of Helmets

Armor generally aims at protecting vital areas, so all armor cover the torso and abdomen. Helmets are used to protect the head. However, some concealable armors don't provide a helmet or someone may not wish to wear an armor's helmet for some reason. In this case, the head remains unprotected to any attack. Furthermore, helmets are essential for the protection some armors offer against fire, concussion waves or acid, as the armor must fully cover the body to protect against such attacks.

[If an armor doesn't provide a helmet or if the helmet simply isn't worn, there is a 50% chance that the armor doesn't provide any protection against a critical hit (it is assumed that such a hit strikes the head and not the chest vitals). An armor without a helmet always protects against normal hits. Conversely, if only the helmet is worn without the rest of the armor, there is a 50% chance that it protects against a critical hit but it doesn't offer any protection against normal hits. A full body armor along with a helmet provides protection against the damage of a coup de grace attack (unless of course the attacker removes the helmet first), while an armor without a helmet doesn't provide any protection (because the attacker can always choose to hit the head.)]

[If the helmet of an armor isn't worn, any acid, concussion, fire or sonic resistance the armor provides is negated.]

WEAPON TEMPLATES

Assault Rifles

The workhorses of modern infantry, assault rifles combine the accuracy of a rifle with the firepower of a machine gun. Since the end of the 20th century, the light assault rifle has dominated the battlefield with its light-weight versatility. The heavy assault rifle is all but obsolete; those that are still around are old models out of production. Reduced assault rifles are shortened rifles that prove more handy in closed spaces without sacrificing firepower; they equip special groups operating in urban environments.

[Assault rifles require the personal firearms proficiency feat. All assault rifles have a 3-round burst setting. When used with the burst fire feat to perform burst fire attacks, they fire 3 rounds and can be used with only 3 rounds in the weapon.]

Compressor Guns

These short-range weapons fire waves of compressed air that cause nasty bruises and may knock someone down. Most of them are used to subdue an opponent, but some fire waves powerful enough to shatter bones. Their short range is compensated by their ability to affected armored opponents.

[Compressor guns require the personal firearms proficiency feat. They do non-lethal damage unless noted otherwise. Anyone hit by a compressor gun must make a Strength check (DC 10+damage taken) to remain on his feet; if he fails he is knocked prone and needs a move action to stand on his feet again. This Strength check must be made even if no damage is taken from the attack. The maximum range of a compressor gun is equal to its range increment.]

[Compressor guns take a compressed air canister as their magazine. Replacing an empty canister with a full

Assault Rifle Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Light	2d8	19-20	Ballistic	100 ft	S, A	1	30 box	Large	7 lbs	19	Res
Heavy	2d10	19-20	Ballistic	100 ft	S, A	2	20 box	Large	8 lbs	19	Res
Reduced*	2d8	19-20	Ballistic	100 ft	S, A	2	30 box	Large	6 lbs	19	Res

[*Reduced: a reduced assault rifle halves the attack penalty of longarms when used against adjacent targets (from -4 to -2).]

Compressor Gun Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Standard	2d6	20	Concussion (non-lethal)	20 ft	S	0	10	Medium	4 lbs	14	Lic
Powerful	2d8	20	Concussion (non-lethal)	30 ft	S	0	7	Medium	4 lbs	15	Lic
Lethal	d6	20	Concussion (lethal)	30 ft	S	0	5	Medium	5 lbs	16	Res

Dart Gun Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Handgun	d4	20	Piercing	10 ft	Single	0	3 box	Small	2 lbs	10	Lic
Rifle	d6	20	Piercing	15 ft	Single	0	5 int	Large	5 lbs	14	Lic

one is a move action.]

Filament Blades

Dart Guns

Dart guns fire small, aerodynamic darts designed to introduce a chemical substance into the target's circulation. Dart gun ammunition is mostly filled with tranquilizer drugs, although any kind of liquid substance may be loaded.

[Dart guns require the personal firearms proficiency feat. They don't do any damage; their damage rating is only used to determine if they penetrate armor. If the damage rolled is greater than the target's armor's piercing resistance, then the loaded substance has been successfully introduced into the target's body.]

These fearsome weapons are called blades but in reality they are more akin to whips. A filament blade resembles a small handle. With the press of a button, it extends a 5 ft long extremely thin but also very durable tungsten wire. The filament is so thin as to be invisible, but a constant electrical charge run through it causes it to emit sparks so that the user can see it (this also causes a characteristic humming sound). A filament blade can slice through most materials easily and cause massive damage, lopping off hands or even slicing someone in half. However, the filament is very unwieldy and the user must show extra carefulness lest he injures himself.

[A filament blade requires the exotic weapon proficiency (filament blades) feat. An armor's slashing resistance or an object's hardness is halved against a filament blade. A

Filament Blade Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restriction
Filament blade	2d8	17-20	Slashing	--	--	--	Medium	--	20	Mil

Flamer Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Heavy*	3d6	--	Fire	30 ft	1	0	10	Large	24 lbs	17	Mil
Hand*	3d6	--	Fire	15 ft	1	0	5	Medium	6 lbs	16	Mil
Underbarrel*	3d6	--	Fire	15 ft	1	0	3	Medium	4 lbs	16	Mil

[*Heavy: A heavy flamer's fuel tank is worn as a backpack.]

[*Hand: A hand flammer's stream of fire is only 3 ft wide.]

[*Underbarrel: An underbarrel flamer must be mounted under the barrel of an assault rifle. Its stream of fire is only 3 ft wide.]

Gatling Gun Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Mini*	2d4	19-20	Ballistic	20 ft	A	2	100 box	Medium	6 lbs	22	Mil
Portable*	2d8	19-20	Ballistic	50 ft	A	2	200 box	Large	18 lbs	24	Mil
Point-defense*	2d10	19-20	Ballistic	100 ft	A	3	Linked	Huge	40 lbs	24	Mil
Cannon*	4d12	19-20	Ballistic	150 ft	A	6	Linked	Gargan	250 lbs	35	Mil

[*Mini: A mini gatling has a helical clip, hence its large magazine capacity for a weapon of its size.]

[*Portable: A portable gatling accepts a 200-round cassette as a magazine, but it can also accept linked belts.]

[*Point-defense: A point-defense gatling must be placed on a tripod or mounted on a vehicle.]

[*Cannon: A gatling cannon must be mounted on a vehicle capable of accepting it.]

filament blade that scores a critical hit multiplies its damage by 4. However, the user's Strength modifier doesn't apply when making an attack roll or damage roll with a filament blade. Instead, apply his Dexterity modifier to the attack roll (the damage roll is unaffected by Dexterity).]

Flamers

Flamers are powerful, intimidating weapons spraying opponents with jets of chemical fire. Although they have an extremely short effective range, they are very effective in closed spaces. Modern flamers use a relatively inert fuel which is ignited by an electronic catalyst as it exits the muzzle; this prevents being incinerated by your own weapon if a lucky shot hits the fuel tank. Apart from the cumbersome heavy flamer (with the fuel tank worn as a backpack), there are also hand flamers (resembling oversized handguns) and special flamers for mounting under the barrel of rifles.

[Flamers don't require any weapon proficiency feat. A flamer fires a stream of flames in a path 5 ft wide and as long as the weapon's range increment. No attack roll is necessary; everyone in the path can make a Reflex save (DC 15) to take half damage. Anyone taking damage from a flamer's attack automatically catches on fire. Refilling a flamer's fuel tank takes one round per "shot" in its magazine capacity. Replacing an empty tank with a full one takes a full-round action. Flamers can only be fired once per round.]

Gatling Guns

Gatling guns, sometimes called miniguns, are multi-barreled weapons with usually six barrels rotated by an electric motor. Each barrel, as it rotates, enters a different stage of loading, firing and extracting the ammunition. As a result, gatling guns achieve a phenomenal rate of fire, sometimes over 10,000 rounds per minute. They exist in many versions, from the truly portable to the monstrous gatling cannon (with calibers over 20 mm). Because of their high rates of ammo consumption, they're

best suited as vehicle weapons in a vehicle capable of carrying lots of ammo.

[Gatling guns require the exotic weapon proficiency (gatling guns) feat. Gatling guns used for autofire fire 20 rounds (and need at least 20 rounds in the weapon) and increase the Reflex save DC for an autofire attack by 5. When used with the burst fire feat to make a burst fire attack, they fire 10 rounds (and need at least 10 rounds in the weapon) and give 3 extra damage dice instead of only 2.]

Graser

Graser is an acronym for Gamma Ray Amplification by Stimulated Emission of Radiation. It is the legendary "cancer gun", a weapon that is rumored to be in use by amoral secret agencies (this may well mean all secret agencies), but no one is certain it exists (except of course from those who have used it). Theoretically, a graser is akin to a laser but fires bursts of intense gamma radiation that are highly carcinogenic. Invisible, silent and lethal, the greaser is the perfect weapon for assassinations; the target will develop leukemia or cancer some time after the weapon is used on him and will die seemingly of natural causes. The gamma radiation used by the graser penetrated most materials easily, although it can't get past any EM shielding.

[A graser requires the exotic weapons proficiency (grasers) feat. It fires a beam of gamma radiation that is 5 times the weapon's range increment long (afterwards losing its potency). Anyone in the beam's path has a chance to get hit; make a single attack roll and compare it to the Defense of each potential target (grasers cannot score critical hits).]

[Armors protect against gamma radiation with the highest of ballistic, bludgeoning, piercing or slashing resistance divide by 4; the hardness of an object is also divided by 4. Objects are not affected in any way by gamma radiation, but someone hiding behind one can be affected. All cover bonuses are negated by a graser, but when attacking someone you can't see behind an obstacle

Graser Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Graser*	2d4	--	Gamma	300 ft	1	0	4 box	Large	14 lbs	?	?

[*Graser: A graser takes the same batteries as a pulse laser.]

he is considered to have total concealment.]

[Grasers do not cause hit point loss. Their damage only determines how and when its targets are affected by the carcinogenic properties of gamma radiation. Armor and hardness offer some limited protection, as noted, but each target accumulates the protection of all obstacles the beam encountered before striking him. For example, let's assume that someone wearing an armor offering 2 points of resistance against gamma radiation is hit by a graser's beam. Before striking the character the beam has passed through a wall with hardness 10 (protecting with 2 points against gamma radiation), a door with hardness 5 (protecting with 1 point against gamma radiation) and another person wearing armor offering 1 point of protection. The character receives the protection of his armor plus the accumulated protection of all previous obstacles, for a total of 6 points.]

[Anyone "taking damage" from a graser has to make a Fortitude save (DC 15+damage taken). On a successful save, the radiation fails to affect him in any way. On a failure however, he will develop a deadly, aggressive cancer or leukemia within a period depending on the damage taken: 1-4 points/6 months, 5-8 points/3 months, 9+ points/1 month. Damage from a greaser will not be felt by

the target until the malignancy is diagnosed.]

[A graser's beam is both completely invisible and silent. It is not disrupted by rain or smoke, as lasers are. However, shielding against electromagnetic attacks will completely stop the beam (any armor or object designed to be protected by pulsers forms a barrier a graser cannot penetrate).]

[A graser has an adjustable setting determining its power output that can be modified according to how much and how quickly you want to affect the target. The damage listed is for the low setting. At the moderate setting add one extra damage die, but each shot expends 2 charges from the weapon's batteries. At the high setting add two extra damage dice, but each shot expends 4 charges from the weapon's batteries. The graser's setting may be altered once per round as a free action (any additional alteration within the same round requires a move action to be taken).]

[Grasers work on batteries; their magazine capacity determines how many shots a battery can power before being drained. A graser can only be fired once per round.]

[No Purchase DC or Restriction is given for a graser, as it might not even exist! If you decide to include

Grenade Launchers Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Stand-alone	?	?	?	100 ft	Single	3	4 int	Medium	8 lbs	15	Mil
Underbarrel*	?	?	?	100 ft	1	3	1 int	Medium	4 lbs	14	Mil
Machine gun*	?	?	?	100 ft	A	3	Linked	Huge	50 lbs	23	Mil

[*Underbarrel: This launcher must be mounted under the barrel of an assault rifle.]

[*Machine gun: The grenade machine gun doesn't follow the standard rules for autofire. Each time it is fired, it will launch 3 grenades at the same target. Use the same attack roll for all 3 grenades; If they scatter, all 3 of them end up at the same point. Each grenade is treated as a separate attack; targets get a saving throw against each one and their damage is rolled separately. A grenade machine gun must be placed on a tripod or mounted on a vehicle.]

Gyrojet Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Handgun	?	?	?	100 ft	1	4	3 box	Medium	8 lbs	18	Mil
Rifle	?	?	?	200 ft	1	3	6 box	Large	12 lbs	20	Mil
Underbarrel*	?	?	?	200 ft	1	3	1 int	Medium	6 lbs	18	Mil

[*Underbarrel: An underbarrel gyrojet launcher must be mounted under the barrel of an assault rifle.]

it in your game, the Purchase DC would theoretically be around 26-28, assuming of course a player finds someone willing to sell such a weapons (or at least the blueprints for it), and the Restriction should be Illegal.]

Grenade Launchers

Grenade launchers are weapons designed to make grenades more effective. They accept 40 mm grenades as their ammo, smaller versions of the ordinary hand grenades, and can launch them much further than any human can. They're also essential for using the more

technologically advanced grenades, like airbursts and cluster grenades. They exist in many versions, from stand-alone weapons to barrel-mounted launchers to grenade machine guns.

[Grenade launchers require the exotic weapon proficiency (grenade launchers) feat. They can only fire 40 mm grenades, not hand or rifled grenades. 40 mm grenades follow all the rules for hand grenades. The launcher's maximum range is 5 times its range increment. Its damage, critical and damage type depend on the type of grenades fired.]

Handgun Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Light auto-loader	2d4	19-20	Ballistic	20 ft	S	1	8 box	Tiny	1 lb	14	Lic
Medium auto-loader	2d6	19-20	Ballistic	30 ft	S	1	15 box	Small	2 lbs	15	Lic
Heavy auto-loader	2d8	19-20	Ballistic	30 ft	S	2	8 box	Small	4 lbs	16	Lic
Light revolver	2d4	19-20	Ballistic	15 ft	S	1	6 cylin	Tiny	1 lb	13	Lic
Medium revolver	2d6	19-20	Ballistic	25 ft	S	1	6 cylin	Small	2 lbs	14	Lic
Heavy revolver	2d8	19-20	Ballistic	25 ft	S	2	6 cylin	Small	4 lbs	15	Lic

Laser Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Handgun	2d4	20	Laser	80 ft	S	0	10 box	Small	5 lbs	21	Res
Rifle	2d6	20	Laser	200 ft	S	0	10 box	Large	10 lbs	22	Res
Pulse rifle	2d6	20	Laser	200 ft	S, A	0	20 box	Large	10 lbs	23	Mil
Heavy rifle	2d8	20	Laser	250 ft	S	0	8 box	Large	15 lbs	23	Mil
Heavy pulse*	2d8	20	Laser	250 ft	S, A	0	50 box	Huge	50 lbs	25	Mil
Cannon*	5d8	20	Laser	250 ft	1	0	--	Garg	500 lbs	38	Mil
Pulse cannon*	3d8	20	Laser	250 ft	S, A	0	--	Garg	300 lbs	37	Mil

[*Heavy pulse: A heavy pulse laser must be placed on a tripod or mounted on a vehicle.]

[*Cannon: A laser cannon must be mounted on a vehicle capable of taking it and hooked to its power plant. It can produce unlimited shots as long as the vehicle's power plant is operating. A laser cannon can only be fired once per round.]

[*Pulse cannon: A pulse laser cannon must be mounted on a vehicle capable of taking it and hooked to its power plant. It can produce unlimited shots as long as the vehicle's power plant is operating.]

Gyrojet Weapons

These weapons resemble large handguns or small rifles and fire the revolutionary mini-rockets. They slowly begin to replace grenade launchers, since mini-rockets have more range and efficiency than grenades.

[Gyrojet weapons require the exotic weapons proficiency (rocket launchers) feat. They can only fire mini-rockets and cannot accept any of the available targeting systems for rocket launchers. Mini-rockets scatter like thrown explosives if they miss. Gyrojet weapons can only be fired once per round. Their damage, critical and damage type depend on the type of mini-rocket fired.]

Handguns

Although handguns lack in range, accuracy and stopping power when compared to rifles and are considered backup weapons by the military, they are among the most common firearms today, prized for their small size, concealability and ease of use. The great majority of modern

handguns are semi-automatic autoloaders, coming out in a great variety of calibers and sizes. Some revolvers still exist today, but are seen as inferior weapons of a past era, suitable only for romantics.

[Handguns require the personal firearms proficiency feat.]

Lasers

Since their appearance, lasers have revolutionized ranged combat. Although still expensive and somewhat unwieldy, they provide any distinct advantages over traditional firearms. The greatest is their superior armor penetration capability; few armors can withstand the concentrated energy of a laser beam. Moreover, lasers are completely silent and recoilless (actually, there is a backwards momentum but it is negligible). On the downside, they have poor accuracy in smoke or rain, which deflect and disperse the laser beam. Weapons of finesse and accuracy, they lack the brutal power of firearms and allow for surgical strikes. Combat lasers today are infrared ones, us-

Machine Gun Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Light*	2d8	19-20	Ballistic	100 ft	A	1	100 box	Large	12 lbs	21	Mil
Medium	2d10	19-20	Ballistic	100 ft	A	2	Linked	Large	16 lbs	21	Mil
Heavy*	2d12	19-20	Ballistic	100 ft	A	4	linked	Huge	50 lbs	21	Mil

[*Light: a light machine gun takes a 100-round saddle drum as a magazine, but can also take linked belts as well.]

[*Heavy: a heavy machine gun must be placed on a tripod or mounted on a vehicle.]

Machine Pistol Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Light	2d4	19-20	Ballistic	20 ft	S, A	1	30 box	Small	2 lbs	16	Res
Heavy	2d6	19-20	Ballistic	30 ft	S, A	1	20 box	Small	4 lbs	16	Res

Mortar Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Light*	?	?	?	250 ft	1	0	—	Large	20 lbs	19	Mil
Heavy*	?	?	?	500 ft	1	0	—	Huge	40 lbs	21	Mil

[*Light: A light mortar fires 50 mm explosive shells.]

[*Heavy: A heavy mortar fires 80 mm explosive shells.]

ing a low-powered visible light beam to assist targeting. The visible beam can be deactivated to make truly invisible shots, although this undermines the laser's accuracy.] [Lasers require the exotic weapons proficiency (lasers) feat. To determine how much an armor protects against a laser's beam use the highest of ballistic, bludgeoning, piercing or slashing resistance but halve it before applying the laser's damage (eg an armor with ballistic resistance 4, bludgeoning resistance 4 and slashing resistance 6 will protect as if it had 3 points of laser resistance). Lasers also halve the hardness of any object they strike. Lasers suffer a -4 attack penalty when firing through light rain and a -8 attack penalty when firing through heavy rain or smoke. If the targeting beam is turned off, attack rolls suffer a -1 penalty but the laser beam is only visible in infrared vision.]

[Lasers operate on batteries. Their magazine capacity determines how many shots their batteries can power before being drained. If mounted on a vehicle with a potent energy source or hooked to a generator, they can produce unlimited shots.]

Machine Guns

Machine guns have revolutionized infantry combat since WW I, when they were extensively used, and they still remain the best way to defend a position against the advance of infantry or to support a small squad. Three types of machine guns exist today. The light machine gun, also known as a squad automatic weapon, is best suited as a portable support weapon for infantry squads. The medium machine gun is a hybrid that is fully portable but can be

set as a point-defense gun as well. The heavy machine gun is essentially a vehicle weapon and used against lightly armored vehicles; its use against personnel is overkill.

[Machine guns require the exotic weapon proficiency (machine guns) feat. They are designed to be placed on some kind of mount, usually a bipod or tripod. If a machine gun isn't fired from such a mount, the attack roll suffers a -2 penalty even if the character is capable of carrying the weapon on his own.]

Machine Pistols

Machine pistols belong to the same category of personal automatic weapons as submachine guns, but are generally smaller, utilizing the frame of handguns, and more concealable. These traits have made them the favorite weapons of criminals and terrorists.

[Machine pistols require the personal firearms proficiency feat. All machine pistols feature a 3-round burst setting. When used with the burst fire feat to make burst fire attacks, they fire 3 rounds and can be used with only 3 rounds in the weapon.]

Mortars

Mortars can be thought of as large grenade launchers which toss explosive shells over large distances using a parabolic arc. They are usually small enough to be carried and manned by a small squad. Simple weapons, the basic mortar is a tube with a firing pin at its bottom; when a mortar shell dropped in the tube hits the pin, its propelling charge is detonated and the shell is launched. Mortars work best when an observer that notes the misses

Needler Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Handgun	2d4	17-20	Ballistic	15 ft	S	I	30 box	Small	4 lbs	15	Lic
SMG	2d4	17-20	Ballistic	20 ft	S, A	I	50 box	Medium	6 lbs	17	Res
Rifle	2d6	17-20	Ballistic	30 ft	S, A	I	50 box	Large	8 lbs	19	Res

Pulser Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Standard	2d6	--	Magnetic	50 ft	I	0	10 box	Medium	4 lbs	20	Res
Powerful	4d6	--	Magnetic	100 ft	I	0	5 box	Large	6 lbs	23	Res

and gives correcting feedback is available.

[Mortars require the exotic weapon proficiency (mortars) feat. Before a mortar can be used, it must be set on a bipod. Firing a mortar is a full-round action (this includes loading a shell). Being rather inaccurate (at least during the initial shots), mortars inflict a -4 penalty on the attack roll. An observer that is able to see both the target and the point where a missed shell lands, can give correcting information with a successful Intelligence check (DC 12). Each piece of correcting information gives a +1 bonus to the attack roll that accumulates, although this bonus resets to 0 if the mortar or its target is moved. Once the mortar successfully hits a targeted square (note that a square has effective Defense 10), it can automatically hit that square on following rounds unless the mortar is moved. Note that a fire observer need not be close to the mortar or even within sight of it, but he has to have a way of communicating with the mortar's firing crew.]

[Because a mortar launches its shells on a parabolic arc, it is able to hit targets concealed behind obstacles. A mortar will ignore any cover bonus to Defense, as long as the targeted area can be reached by a shell following a parabolic arc. A mortar can even hit targets its

firing crew can't see (like a target behind a hill), although in this case the attack roll suffers a -10 penalty. An observer in a forward position is very useful in these cases.]

[A mortar's maximum range is 5 times its range increment. Its damage, critical and damage type depend on the type of shells fired.]

Needlers

Needlers are weapons using a compressed gas canister to propel thin, needle-like projectiles called flechettes. Even non-automatic needlers fire lots of flechettes with each press of the trigger, creating a deadly shower that can tear an unprotected target apart at close range. In a way, needlers are very similar to shotguns firing buckshot: they are especially accurate at close ranges and lethal against targets without protection, but lose lethality at longer ranges and even light armor can stop them.

[Needlers require the personal firearms proficiency feat. They gain a +1 circumstance bonus to attack rolls, but lose one point of damage per full range increment. They inflict 50% secondary damage but triple the ballistic resistance

Railgun Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Handgun	2d10	20	Ballistic	40 ft	S	3	12 box	Small	6 lbs	20	Mil
Rifle	2d12	20	Ballistic	150 ft	S	3	15 box	Large	12 lbs	24	Mil
Machine gun*	2d12	20	Ballistic	150 ft	S, A	3	linked	Large	20 lbs	27	Mil

[*Machine gun: A rail machine gun fired without first being placed on a bipod, tripod or mounted on a vehicle suffers a -4 penalty to the attack roll even if the character is normally able to carry it.]

Rocket Launcher Templates											
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Disposable*	?	?	?	150 ft	I	0	--	Large	12 lbs	18	Mil
Light*	?	?	?	150 ft	I	0	I int	Large	10 lbs	20	Mil
Heavy*	?	?	?	150 ft	I	0	I int	Large	15 lbs	22	Mil

[*Disposable: A disposable rocket launcher comes along with a single light rocket (not figured in the Purchase DC but figured in the weight). It is a one-shot weapon, becoming useless after it fires the rocket. It can not accept a targeting system.]

[*Light: A light rocket launcher can only fire light rockets.]

[*Heavy: A heavy rocket launcher can only fire heavy rockets.]

of an armor and double the hardness of an object.]

[All needlers have an adjustable setting determining how many flechettes are fired simultaneously with each press of the trigger. By increasing this amount, the user can increase the damage dealt by a needler. At the lowest setting, a needler inflicts the listed damage. At the moderate setting, a needler's damage die is upgraded by one type (a d4 becomes a d6 and a d6 becomes a d8, so that a needler handgun inflicts 2d6 damage), but ammo consumption is doubled (eg a burst requiring 5 rounds now requires 10 rounds). At the high setting, a needler's damage die is upgraded by two types (a d4 becomes a d8 and a d6 becomes a d10), but ammo consumption is quadrupled. Changing a needler's setting is a free action once per round (it takes a move action for each additional change in the same round).]

Pulsers

Pulsers are specialized weapons producing an electromagnetic pulse that doesn't harm living targets but is effective against electronic equipment, temporarily disabling or even destroying it. They can become very dangerous when used against someone with extensive cyber-

ware in his body.

[Pulsers don't require any weapon proficiency feat. They emit an electromagnetic pulse in a cone with length and width equal to their range increment. No attack roll is necessary; any electronic device within the cone is affected by the pulse. A pulser's damage doesn't decrease a device's hit points. Instead, the device is disabled and will fail to function for 1 round per damage point rolled. If any of the damage dice scores its maximum result (eg for a pulser doing 2d6 damage, if any of the d6s comes up as 6), sensitive circuits of a device are fried and the device is disabled until repairs can be made. A pulser will ignore any type of cover, even total cover, but it cannot penetrate certain heavy materials (like lead). Pulsers can only be fired once per round.]

[Regardless of the result of the damage roll, any magnetic storage media affected by a pulser's attack are always erased.]

[If someone having cyberware in his body is within a pulser's cone, all of his cyberware are affected.]

[Because of the sensitive electronics located within modern vehicles, vehicles are susceptible to the attack of a pulser and can be disabled by one.]

[Pulsers operate on batteries. Their magazine

Screamer Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Standard	d12	--	Sonic (non-lethal)	30 ft	1	0	20 box	Small	2 lbs	10	Lic
Powerful*	2d8	--	Sonic (non-lethal)	45 ft	1	0	10 box	Medium	4 lbs	11	Lic
Lethal*	d8	--	Sonic (lethal)	45 ft	1	0	5 box	Medium	4 lbs	15	Res

[*Powerful: The Fortitude save DC for a powerful screamer is 18.]

[*Lethal: A lethal screamer can be set to inflict non-lethal damage.]

Shotgun Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
12g pump	2d10	?	Ballistic	30 ft	S	2	6 int	Large	8 lbs	15	Lic
16g pump	2d8	?	Ballistic	30 ft	S	2	6 int	Large	7 lbs	14	Lic
10g pump	2d12	?	Ballistic	30 ft	S	3	3 int	Large	10 lbs	16	Lic
12g auto*	2d10	?	Ballistic	30 ft	S, A	2	12 box	Large	9 lbs	17	Mil
12g sawed-off	2d10	?	Ballistic	15 ft	S	2	6 int	Medium	5 lbs	15	III

[*12g auto: The 12-gauge automatic shotgun has a 3-round burst setting. When used with the burst fire feat to make a burst fire attack, it fires 3 rounds and can be used with only 3 rounds in the weapon.]

capacity determines how many "shots" they're able to produce before their batteries are drained and require replacement.]

Railguns

Railguns follow a radical approach towards projectile propelling, doing away with any propellant charge and using an electromagnetic accelerator. Because of the phenomenal velocities their projectiles achieve, railguns are considered to be the ultimate armor-piercing weapons and work better with armor-piercing rounds, enhancing their properties.

[Railguns require the exotic weapon proficiency (railguns) feat. Even standard bullets fired from a railgun receive some armor-piercing properties, becoming able to ignore up to 2 points of ballistic resistance or hardness (but inflicting 25% less damage after ballistic resistance or hardness is applied). A railgun shows its true potential when used with a round that already has armor-piercing properties, since it doubles the amount of ballistic resistance or hardness the round can ignore (without affecting any reduction in damage afterwards).

Rocket Launchers

Rocket launchers are essentially tubes used to launch self-propelled projectiles. They have advanced much since the days of the WW II bazooka, using composite fibers to reduce their weight and having the option to accept a wide variety of targeting systems.

[Rocket launchers require the exotic weapons proficiency (rocket launchers) feat. They fire rockets, which scatter

as thrown explosives if they miss. Rocket launchers can accept a wide variety of targeting systems (detailed in another section), which provide a fire control bonus to the attack roll when used in conjunction with smart rockets. When a rocket is fired, its gases are vented backwards, creating a backblast. A backblast extends in a path 5 ft wide and 10 ft (for a light rocket) or 15 ft (for a heavy rocket) long. Anyone in this area takes 3dB fire damage and may make a Reflex save (DC 12) to take only half damage. A launcher's damage, critical and damage type depend on the type of rocket fired.]

Screamers

Screamers are weapons using focused sound to inflict temporary deafness and disorientation. Screamers are usually non-lethal weapons, although some models that use ultrasonics to produce lethal resonances do exist. They are preferred by the police against rioting crowds and are prized for their ability to affect multiple targets at once.

[Screamers don't require any weapon proficiency feat. They produce a cone of sound that can be configured by the user to have a length up to the screamer's range increment and a width also up to its range increment (changing the setting is a free action once per round; each additional change in the same round takes a move action). No attack roll is necessary; everyone within the cone must make a Fortitude save (DC 15). On a failure, a target is deafened for 2 rounds per damage point rolled. The damage delivered by screamers is non-lethal unless otherwise stated. Noise suppression or a soundproof hel-

Sniper Rifle Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Light	2d8	18-20	Ballistic	150 ft	S	1	6 int	Large	12 lbs	20	Mil
Medium	2d10	18-20	Ballistic	200 ft	S	2	6 int	Large	14 lbs	21	Mil
Heavy	2d12	19-20	Ballistic	200 ft	S	3	4 int	Large	18 lbs	22	Mil

Submachine Gun Templates

Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Recoil Level	Magazine	Size	Weight	Purchase DC	Restriction
Light	2d6	19-20	Ballistic	40 ft	S, A	1	35 box	Medium	6 lbs	17	Res
Heavy	2d8	19-20	Ballistic	40 ft	S, A	2	30 box	Medium	7 lbs	19	Res

met will completely protect against the damage and deafness effect of non-lethal screamers, but are useless against lethal screamer damage (although they will still protect against the deafness). Good ear-plugs will provide a +4 equipment bonus on Fortitude saves against non-lethal screamers, but are of no use against lethal ones. Screamers can be fired only once per round.]

[Screamers work on batteries. Their magazine capacity determines how many "shots" a battery can power.]

Shotguns

Shotguns are smooth bore weapons made for close range mayhem. Originally, shotguns could only fire buckshot, a load of numerous small pellets which disperse after leaving the barrel, thereby greatly increasing the chances of a hit (at least in close range). At close range buckshot is deadly against a soft target, able to carve a hole through a man, but the pellets are especially ineffective against armor or hard targets and they rapidly lose lethality as range increases. Modern shotguns are also able to fire

slugs. Slugs are solid projectiles resembling the bullets fired by conventional firearms. They are large and powerful but rather inaccurate, as the shotgun's barrel lacks any rifling.

[Shotguns require the personal firearms proficiency feat. A shotgun firing buckshot has critical range 17-20. Buckshot gives a +1 circumstance bonus to attack rolls, but loses 1 point of damage per full range increment. Buckshot inflicts 50% secondary damage, but triples the ballistic resistance of an armor and doubles the hardness of an object.]

[A shotgun firing slugs has critical range 20. Slugs don't get any of the advantages or disadvantages of buckshot.]

Sniper Rifles

These semi-automatic weapons fire powerful shots and are extremely accurate over long distances. They are the preferred weapons of police snipers and professional assassins, able to take out a target from a long distance. Sniper rifles are weapons of finesse and not suited for

Taser Templates										
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restriction
Standard hand	2d8	--	Electrical (non-lethal)	--	--	10	Small	0.5 lbs	6	--
Powerful hand*	4d6	--	Electrical (non-lethal)	--	--	5	Medium	2 lbs	8	Lic
Lethal hand*	d8	--	Electrical (lethal)	--	--	5	Medium	2 lbs	10	Res
Standard projectile	2d6	--	Electrical (non-lethal)	20 ft	S	4 box	Small	1 lb	8	Lic
Powerful projectile*	2d10	--	Electrical (non-lethal)	20 ft	S	4 box	Small	1 lb	10	Lic
Lethal projectile*	d6	--	Electrical (lethal)	20 ft	S	4 box	Small	1 lb	12	Res

[*Powerful hand: The Fortitude save DC for a powerful hand taser's attack is 18.]

[*Lethal hand: A lethal hand taser can be set to inflict non-lethal damage.]

[*Powerful projectile: The Fortitude save DC for a powerful projectile taser's attack is 18.]

[*Lethal projectile: A lethal projectile taser can be set to inflict non-lethal damage.]

Vibroweapon Templates										
Template	Damage	Crit	Damage Type	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restriction
Vibro dagger	2d4/1d4	19-20	Piercing	--	--	--	Tiny	1 lb	14	--
Vibro sword	2d8/1d8	19-20	Slashing	--	--	--	Medium	4 lbs	16	Res
Vibro axe	2d10/1d10	20	Slashing	--	--	--	Large	6 lbs	17	Res

close action.

[Sniper rifles require the personal firearms proficiency feat. All sniper rifles come with a standard scope, which may be upgraded at the expense of the user. They have double the usual penalty of longarms for firing against adjacent targets (-8 instead of -4).

Submachine Guns

These small assault weapons are well suited for an urban environment, where the ballistics of a large automatic weapon would be undesirable. They are extensively used by security forces and military groups operating in closed spaces.

[Submachine guns require the personal firearms proficiency feat. Firing a submachine gun one-handed inflicts a -2 penalty to the attack roll. All submachine guns have a 3-round burst setting. When used with the burst fire feat to make burst fire attacks, they fire 3 rounds and can be used with only 3 rounds in the weapon.]

Tasers

Tasers are weapons relying on an electrical charge to incapacitate the target. Most tasers are subdual weapons, temporarily disabling the target, although there are some models using a lethal charge. Tasers are either hand models, functioning as melee weapons, or projectile weapons firing a flechettes carrying the electrical charge. [Hand tasers require the simple melee weapons profi-

ciency feat. Projectile tasers require the personal firearms proficiency feat. Tasers inflict non-lethal damage unless noted otherwise. The target of a taser's attack has to make a Fortitude save (DC 15). On a failed save, he is paralysed for one round per point of damage rolled. Tasers, even lethal ones, cannot damage objects. A taser can't score critical hits.

[Damage for hand tasers isn't modified by the user's Strength modifier.]

[Hand tasers operate on batteries. Their magazine capacity determines how many charges their batteries can power before being drained (a charge is only expended on a successful hit). Projectile tasers accept a clip holding the charged flechettes they fire.]

Vibroweapons

These edged weapons contain within their blades an ultrasonic generator that, when activated, will cause the blade to rapidly vibrate, maximizing its penetrating ability and damage potential. The rapid vibration of the blade will also produce a distinct ringing sound.

[Vibroweapons have two different damage ratings. The first is the damage they inflict when they vibrate, while the second is the damage they inflict when the vibrogenerator is turned off. Vibroweapons function on batteries. Each battery set will power the weapon for 6 hours of continuous operation. New batteries have a Purchase DC of 3.]

SPECIFIC WEAPONS

[All specific weapons are based on one of the weapon templates found in this book. Some of them are distinct because they differ in one or more statistics from the basic template, while others have integral add-ons and modifications, usually at a smaller cost than adding them separately. All specific weapons however, follow the template rules unless stated otherwise. Integral add-ons and modifications are already figured in the Purchase DC of the weapon.]

Model	Notes	Template	Damage	Crit	Damage Type	Recoil Level	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restr
Browning Invector Stalker		10g pump shotgun	2d12	?	Ballistic	3	30 ft	S	3 int	Large	10	16	Lic
Franchi SPAS-15		12g auto shotgun	2d10	?	Ballistic	2	30 ft	S, A	12 box	Large	9	17	Res
H&K CAWS	Integral muzzle brake.	12g auto shotgun	2d10	?	Ballistic	2	30 ft	S, A	15 box	Large	9	19	Res
Pancor Jackhammer	Integral 20-round drum magazine.	12g auto shotgun	2d10	?	Ballistic	2	30 ft	S, A	20 box	Large	9	18	Res
Ithaca M760	Due to its "pistol grip" configuration, it halves penalties for firing at adjacent targets (from -2 to -4).	12g pump shotgun	2d10	?	Ballistic	2	30 ft	S	5 int	Large	7	14	Lic
Mossberg 5-550		12g pump shotgun	2d10	?	Ballistic	2	30 ft	S	6 int	Large	7	14	Lic
FN P6c		Dart handgun	d4	20	Piercing	0	10 ft	Single	3 box	Small	2	10	Lic
FN P8c		Dart rifle	d6	20	Piercing	0	15 ft	Single	5 int	Large	5	14	Lic
M330 Mankiller	Carries a light anti-personnel rocket (already figured in the Purchase DC).	Disposable rocket launcher	6d6	--	Slashing	0	150 ft	1	--	Large	12	22	Mil
M336 Firestorm	Carries a light incendiary rocket (already figured in the Purchase DC).	Disposable rocket launcher	6d6	--	Fire	0	150 ft	1	--	Large	12	22	Mil
M339 Decimator	Carries a light high explosive rocket (already figured in the Purchase DC).	Disposable rocket launcher	8d6	--	Concussion	0	150 ft	1	--	Large	12	24	Mil
M79 LAW	Carries a light anti-vehicle rocket (already figured in the Purchase DC).	Disposable rocket launcher	10d6	--	Concussion	0	150 ft	1	--	Large	12	24	Mil
GE M180 Charon		Gatling cannon	4d12	19-20	Ballistic	6	150 ft	A	linked	Gargan	250	35	Mil
Mark 19 Model 5		Grenade machine gun	?	?	?	3	100 ft	A	linked	Huge	50	23	Mil
H&K 75 Spitting Cobra		Gyrojet handgun	?	?	?	4	100 ft	1	3 box	Medium	8	18	Mil
H&K 71 Rocketeer		Gyrojet rifle	?	?	?	3	200 ft	1	6 box	Large	12	20	Mil
H&K 73 Hammerhead		Gyrojet underbarrel launcher	?	?	?	3	200 ft	1	1 int	Medium	6	18	Mil
FN Mephisto		Hand flamer	3d6	--	Fire	0	15 ft	1	5	Medium	6	16	Mil
FN FAL		Heavy assault rifle	2d10	19-20	Ballistic	2	100 ft	S, A	20 box	Large	8.5	19	Res
H&K G3		Heavy assault rifle	2d10	19-20	Ballistic	2	100 ft	S, A	20 box	Large	8	19	Res
Colt Peacemaker		Heavy autoloader	2d8	19-20	Ballistic	2	30 ft	S	8 box	Small	3.2	16	Lic

Model	Notes	Template	Damage	Crit	Damage Type	Recoil Level	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restr
FN Tempest	Integral muzzle brake, electrothermal modification.	Heavy auto-loader	2d8	19-20	Ballistic	2	30 ft	S	10 box	Small	4.5	21	Lic
IMI Desert Eagle		Heavy auto-loader	2d8	19-20	Ballistic	2	30 ft	S	9 box	Small	3.5	16	Lic
Browning M5A1-7 Phoenix		Heavy flamer	3d6	--	Fire	0	30 ft	1	10	Large	24	17	Mil
Rheinmetal FL5 Diablo	Takes a 10-shot heavy flamer fuel tank, but consumes 2 shots each time it fires, hence its magazine capacity is 5.	Heavy flamer	3d6	--	Fire	0	45 ft	1	5	Large	24	19	Mil
Colt Starcommand		Heavy laser rifle	3d8	20	Laser	0	250 ft	S	4 box	Large	10	25	Mil
H&K PSG-25L	Integral standard scope, bipod.	Heavy laser rifle	2d8	20	Laser	0	300 ft	S	8 box	Large	15	25	Mil
Rheinmetal Sun-scorcher		Heavy laser rifle	2d8	20	Laser	0	250 ft	S	8 box	Large	15	23	Mil
Browning MSHB		Heavy machine gun	2d12	19-20	Ballistic	4	120 ft	A	linked	Huge	50	22	Mil
Glock 18	Integral muzzle brake.	Heavy machine pistol	2d6	19-20	Ballistic	1	35 ft	S, A	33 box	Small	1.4	18	Res
IMI Micro-Uzi		Heavy machine pistol	2d6	19-20	Ballistic	1	30 ft	S, A	20 box	Small	3	16	Res
Steyr Tactical Machine Pistol		Heavy machine pistol	2d6	19-20	Ballistic	1	30 ft	S, A	30 box	Small	2.6	16	Res
Royal Ordnance L25A1		Heavy mortar	?	?	?	0	500 ft	1	--	Huge	40	21	Mil
H&K G35 Las-Support		Heavy pulse laser	2d8	20	Laser	0	250 ft	S, A	50 box	Huge	50	25	Mil
Colt Anaconda		Heavy revolver	2d8	19-20	Ballistic	2	25 ft	S	6 cyl	Small	3.2	15	Lic
Colt Python		Heavy revolver	2d6+2	19-20	Ballistic	2	25 ft	S	6 cyl	Small	2.7	15	Lic
Ruger Super Redhawk	Integral standard scope.	Heavy revolver	2d8	19-20	Ballistic	2	25 ft	S	6 cyl	Small	2.9	15	Lic
S&W L Frame		Heavy revolver	2d6+2	19-20	Ballistic	2	25 ft	S	6 cyl	Small	3	14	Lic
Browning Heavy Multi-Launcher		Heavy rocket launcher	?	?	?	0	150 ft	1	1 int	Large	15	22	Mil

Model	Notes	Template	Damage	Crit	Damage Type	Recoil Level	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Rest r
Eryx	Integral laser tracking system. Can only fire a heavy anti-vehicle rocket using a similar system. Laser designator included in Purchase DC.	Heavy rocket launcher	15d6	--	Concussion	0	150 ft	1	1 int	Large	15	25	Mil
Javelin	Integral semi-automatic targeting system. Can only fire a heavy anti-vehicle rocket using a similar system.	Heavy rocket launcher	15d6	--	Concussion	0	150 ft	1	1 int	Large	15	24	Mil
FN P90 MkV	Integral muzzle brake, 50-round helical clip.	Heavy SMG	2d8	19-20	Ballistic	2	60 ft	S, A	50 box	Medium	5.2	22	Res
Soviet Arms AKSU-2K		Heavy SMG	2d8	19-20	Ballistic	2	40 ft	S, A	30 box	Medium	5.4	19	Res
Barrett M92 Daemon	Integral bipod, standard scope.	Heavy sniper rifle	2d12	18-20	Ballistic	4	200 ft	S	5 int	Large	18	23	Mil
Rheinmetal Mach3	Integral bipod, standard scope, muzzle brake, electrothermal modification.	Heavy sniper rifle	2d12	18-20	Ballistic	4	200 ft	S	4 box	Large	19	28	Mil
Rheinmetal Eclipse		Laser cannon	5d8	20	Laser	0	250 ft	1	--	Garg	500	38	Mil
Colt Startrooper	Integral optical targeting module.	Laser handgun	2d4	20	Laser	0	80 ft	S	10 box	Small	5	23	Res
OptiArms LP3 Apollo		Laser handgun	2d4	20	Laser	0	80 ft	S	10 box	Small	5	21	Res
OptiArms LP5 Chariot		Laser handgun	2d6	20	Laser	0	80 ft	S	5 box	Small	7	22	Res
OptiArms LR5 Sol		Laser rifle	2d6	20	Laser	0	200 ft	S	10 box	Large	10	22	Res
Centurion Arms Mjolnir		Lethal compressor gun	d6	20	Concussion (lethal)	0	30 ft	S	5	Medium	5	16	Res
Centurion Arms Supershock Baton		Lethal hand taser	d8	--	Electrical	0	--	--	5	Medium	2	10	Res
SecuriTek EL15T		Lethal projectile taser	d6	--	Electrical	0	20 ft	S	4 box	Small	1	12	Res
Centurion Arms Harpy Xtreme		Lethal screamer	d8	--	Sonic (lethal)	0	45 ft	1	5 box	Medium	4	15	Mil
Colt M27A1 Longbow		Light assault rifle	2d8	19-20	Ballistic	1	100 ft	S, A	30 box	Large	7	19	Res
Colt M27A2 Longbow	Integral M207 underbarrel grenade launcher.	Light assault rifle	2d8	19-20	Ballistic	1	100 ft	S, A	30 box	Large	7	21	Res

Model	Notes	Template	Damage	Crit	Damage Type	Recoil Level	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restr
Colt M42 Night-stalker	Integral optical targeting module, silencer, standard+starlite scope, electrothermal modification, propellant chip.	Light assault rifle	2d8	19-20	Ballistic	1	100 ft	S, A	35 box	Large	8	30	Res
Soviet Arms AK2K		Light assault rifle	2d8	19-20	Ballistic	1	100 ft	S, A	30 box	Large	7.5	19	Res
Steyr AUG Multi-Weapon	Integral standard scope. Can be converted into a submachine gun (use the light SMG template statistics) within one minute.	Light assault rifle	2d8	19-20	Ballistic	1	100 ft	S, A	35 box	Large	7	22	Res
Astra A-100		Light auto-loader	2d6	19-20	Ballistic	1	30 ft	S	17 box	Small	2	15	Lic
Astra A-60	Recoil level is 0 when firing in semi-automatic mode.	Light auto-loader	2d4	19-20	Ballistic	1	20 ft	S	12 box	Small	1.5	14	Lic
Astra A-70		Light auto-loader	2d6	19-20	Ballistic	1	20 ft	S	8 box	Small	1.6	14	Lic
Beretta M950 Jetfire		Light auto-loader	2d4	19-20	Ballistic	1	20 ft	S	8 box	Small	0.5	14	Lic
Colt Mini-45		Light auto-loader	2d6	19-20	Ballistic	2	20 ft	S	6 box	Tiny	1.5	15	Lic
Glock M98 Pocketguard		Light auto-loader	2d4	19-20	Ballistic	1	20 ft	S	8 box	Tiny	0.4	14	Lic
S&W Mangusta		Light auto-loader	2d6+2	19-20	Ballistic	3	20 ft	S	6 box	Tiny	1	14	Lic
Sig-Sauer P230	Recoil level is 0 when firing in semi-automatic mode.	Light auto-loader	2d4	19-20	Ballistic	1	25 ft	S	8 box	Tiny	1	14	Lic
FN Minimi-3	Integral bipod.	Light machine gun	2d8	19-20	Ballistic	1	100 ft	A	100 box	Large	12	22	Mil
H&K G26 Jupiter	Integral muzzle brake, bipod, electrothermal modification.	Light machine gun	2d8	19-20	Ballistic	1	100 ft	A	100 box	Large	12	26	Mil
Steyr AUG/L5W	Integral standard scope, bipod.	Light machine gun	2d8	19-20	Ballistic	1	100 ft	A	100 box	Large	12	23	Mil
CZ Skorpion M82	Recoil level is 0 when firing in semi-automatic mode.	Light machine pistol	2d4	19-20	Ballistic	1	20 ft	S, A	20 box	Small	3.2	16	Res
Rheimetal Man-Howitzer		Light mortar	?	?	?	0	250 ft	1	--	Large	20	19	Mil

Model	Notes	Template	Damage	Crit	Damage Type	Recoil Level	Range Incr	Rate of Fire	Magazine	Size	Weight	Purchase DC	Restr
S&W J Frame		Light revolver	2d6+1	19-20	Ballistic	1	15 ft	S	6 cyl	Tiny	1.4	13	Lic
Browning Multi-Launcher		Light rocket launcher	?	?	?	0	150 ft	1	3 int	Large	10	20	Mil
Beretta Auto-250		Light SMG	2d6	19-20	Ballistic	1	40 ft	S, A	40 box	Medium	6.4	17	Res
Calico 550 Helios	Integral 50-round helical clip.	Light SMG	2d6	19-20	Ballistic	1	35 ft	S, A	50 box	Medium	4.4	18	Res
Colt Nighthawk Mk1	Integral silencer, laser sight.	Light SMG	2d6	19-20	Ballistic	1	40 ft	S, A	35 box	Medium	5	19	Res
Colt Nighthawk Mk2	Integral silencer, optical targeting link.	Light SMG	2d6	19-20	Ballistic	1	40 ft	S, A	35 box	Medium	5	21	Res
H&K MP2020	Integral muzzle brake.	Light SMG	2d6	19-20	Ballistic	1	45 ft	S, A	30 box	Medium	5	19	Res
H&K MP2020K	Integral muzzle brake.	Light SMG	2d6	19-20	Ballistic	1	30 ft	S, A	30 box	Small	3	18	Res
H&K MP2020SD	Integral silencer.	Light SMG	2d6	19-20	Ballistic	1	45 ft	S, A	30 box	Medium	5	18	Res
H&K MP2020SM	Integral muzzle brake, optical targeting link.	Light SMG	2d6	19-20	Ballistic	1	45 ft	S, A	30 box	Medium	5	22	Res
IMI Uzi Assault 2020		Light SMG	2d6	19-20	Ballistic	1	40 ft	S, A	32 box	Medium	7.4	17	Res
Spectre M-8	Despite its large magazine capacity, it uses a standard clip.	Light SMG	2d6	19-20	Ballistic	1	30 ft	S, A	50 box	Medium	5.8	17	Res
Sig 550 Sniper	Integral bipod, standard scope.	Light sniper rifle	2d8	18-20	Ballistic	1	150 ft	S	6 int	Large	12	21	Mil
Beretta 2K22F		Medium auto-loader	2d6	19-20	Ballistic	1	30 ft	S	15 box	Small	2	15	Lic
Calico 470 Helios	Integral 50-round helical clip.	Medium auto-loader	2d6	19-20	Ballistic	1	25 ft	S	50 box	Small	2	16	Lic
CZ150	Integral laser sight.	Medium auto-loader	2d6	19-20	Ballistic	1	30 ft	S	13 box	Small	1.4	17	Lic
FN Browning BDM		Medium auto-loader	2d6	19-20	Ballistic	1	30 ft	S	15 box	Small	1.7	15	Lic
FN SHS	Integral standard scope.	Medium auto-loader	2d6	19-20	Ballistic	1	60 ft	S	10 box	Small	2.5	19	Lic

Model	Notes	Template	Damage	Crit	Damage Type	Recoil Level	Range	Rate of Fire	Magaz	Size	Weight	Purchase DC	Rest r
Glock 17		Medium auto-loader	2d6	19-20	Ballistic	1	35 ft	S	17 box	Small	1.2	15	Lic
Glock 17L		Medium auto-loader	2d6	19-20	Ballistic	1	45 ft	S	17 box	Small	1.4	15	Lic
H&K P9		Medium auto-loader	2d6	19-20	Ballistic	1	30 ft	S	13 box	Small	1.6	15	Lic
H&K USP-15 Match	Has a unique recoil dampening system that reduces recoil penalties by 1.	Medium auto-loader	2d6	19-20	Ballistic	1	40 ft	S	15 box	Small	1.5	16	Lic
H&K USP-15 SpecOps	Has a unique recoil dampening system that reduces recoil penalties by 1. Integral laser sight, silencer.	Medium auto-loader	2d6	19-20	Ballistic	1	40 ft	S	15 box	Small	1.5	16	Lic
S&W Sigma Seven		Medium auto-loader	2d6	19-20	Ballistic	1	30 ft	S	17 box	Small	2	15	Lic
Sig-Sauer P226		Medium auto-loader	2d6	19-20	Ballistic	1	30 ft	S	15 box	Small	1.5	15	Lic
FN MAG-3	Integral bipod.	Medium machine gun	2d10	19-20	Ballistic	2	100 ft	A	linked	Large	14	21	Mil
H&K G20 Squad Support	Integral muzzle brake, bipod.	Medium machine gun	2d10	19-20	Ballistic	2	100 ft	A	linked	Large	16	23	Mil
Astra M960		Medium revolver	2d6+1	19-20	Ballistic	1	25 ft	S	6 cyl	Small	2.3	14	Lic
H&K PSG-2	Integral bipod, standard scope.	Medium sniper rifle	2d10	18-20	Ballistic	2	200 ft	S	6 int	Large	14	22	Mil
H&K PSG-4 Quicksilver	Integral bipod, standard scope, electrothermal modification, propellant chip.	Medium sniper rifle	2d10	18-20	Ballistic	2	200 ft	S	6 box	Large	15	28	Mil
Colt-Calico Mini-Gatling	Integral helical clip.	Mini gatling	2d4	19-20	Ballistic	2	30 ft	A	100 box	Medium	6	22	Mil
Colt X42 Super Shredder		Needler handgun	2d4	17-20	Ballistic	1	15 ft	S	30 box	Small	4	15	Lic
FN Velvet Shade		Needler rifle	2d6	17-20	Ballistic	1	30 ft	S, A	50 box	Large	8	19	Res
H&K MPF2020		Needler SMG	2d4	17-20	Ballistic	1	20 ft	S, A	50 box	Medium	6	17	Res
GE M160 Tornado		Point-defense gatling	2d10	19-20	Ballistic	3	100 ft	A	linked	Huge	40	24	Mil

Model	Notes	Template	Damage	Crit	Damage Type	Re-coil Level	Range Incr	Rate of Fire	Magaz	Size	Weight	Purchase DC	Restr
GE M143 Cyclone		Portable gatling	2d8	19-20	Ballistic	2	50 ft	A	200 box	Large	18	24	Mil
SecuriTek King Ram		Powerful compressor gun	d8	20	Concussion (non-lethal)	0	30 ft	S	7	Medium	4	15	Lic
Centurion Arms Super-stun Baton		Powerful hand taser	2d6	--	Electrical	0	--	--	5	Medium	2	8	Lic
SecuriTek EL12T		Powerful projectile taser	d10	--	Electrical	0	20 ft	S	4 box	Small	1	10	Lic
OptiArms MagBurst 20		Powerful pulser	4d6	--	Magnetic	0	100 ft	1	5 box	Large	6	23	Res
H&K Sonique		Powerful screamer	2d6	--	Sonic (non-lethal)	0	45 ft	1	10 box	Medium	2	10	Lic
Royal Ordnance L60A3		Pulse laser cannon	3d8	20	Laser	0	250 ft	S, A	--	Garg	300	37	Mil
FN LSA1	Integral laser sight.	Pulse laser rifle	2d6	20	Laser	0	200 ft	S, A	20 box	Large	10	24	Mil
FN LSA2	Integral laser sight, M207 underbarrel grenade launcher.	Pulse laser rifle	2d6	20	Laser	0	200 ft	S, A	20 box	Large	10	25	Mil
H&K G33 Las-Assault	Integral optical targeting module.	Pulse laser rifle	2d6	20	Laser	0	200 ft	S, A	20 box	Large	10	25	Mil
OptiArms LAR2		Pulse laser rifle	2d6	20	Laser	0	200 ft	S, A	20 box	Large	10	23	Mil
FN Mag Pistol		Rail handgun	2d10	20	Ballistic	3	40 ft	S	12 box	Small	6	20	Mil
FN Smart Mag	Integral optical targeting module.	Rail handgun	2d10	20	Ballistic	3	40 ft	S	12 box	Small	6	22	Mil
Rheinmetal S6 Penetrator		Rail machine gun	2d12	20	Ballistic	3	150 ft	A	linked	Large	20	27	Mil
FN Mag Cannon		Rail rifle	2d12	20	Ballistic	3	150 ft	S	15 box	Large	12	24	Mil
H&K G11 SWAT Edition	Integral muzzle brake, laser sight.	Reduced assault rifle	2d8	19-20	Ballistic	2	70 ft	S, A	30 box	Large	6	22	Res
Browning Frag Cannon		Stand-alone grenade launcher	?	?	?	3	100 ft	Single	4 int	Medium	8	15	Mil
Centurion Arms War-hammer		Standard compressor gun	d6	20	Concussion (non-lethal)	0	20 ft	S	10	Medium	4	14	Lic
SecuriTek EL4H		Standard hand taser	d8	--	Electrical	0	--	--	10	Small	0.5	6	--
Centurion Arms Stun Needler		Standard projectile taser	d6	--	Electrical	0	20 ft	S	4 box	Small	1	8	Lic
OptiArms MagBurst 10		Standard pulser	2d6	--	Magnetic	0	50 ft	1	10 box	Medium	4	20	Res
Centurion Arms Harpy Light		Standard screamer	d10	--	Sonic (non-lethal)	0	30 ft	1	20 box	Small	4	11	Lic
H&K 83 Dragon		Underbarrel flamer	3d6	--	Fire	0	15 ft	1	3	Medium	4	16	Mil
Colt M207		Underbarrel grenade launcher	?	?	?	3	100 ft	1	1 int	Medium	4	14	Mil

ARMOR TEMPLATES

Ballistic Clothing

Ballistic clothing is the lightest form of armor available today. It is composed of ballistic-resistant fibers woven into normal clothing, effectively being impossible to detect. Ballistic clothing is favored by normal people who want something subtle, comfortable and stylish. Many fashion designers produce lines of clothing with ballistic-resistant fibers woven into them, Ballistic clothing will not protect much against high-power firearms or other sort of weapons (even a dagger can go through them), but they can save lives from the occasional handgun shot. The lightest form of ballistic clothing (the one with the fewer anti-ballistic fibers) can be made into clothes as thin as t-shirts. Heavier protection is made into bulkier clothes (jackets, overcoats etc).

[All forms of ballistic clothing are light armors. Since ballistic clothing isn't heavier or bulkier than normal clothing, it never inflicts an armor penalty on its user, even if he doesn't have the armor proficiency (light) feat. Ballistic clothing can be distinguished from normal clothing only through a chemical analysis of the fibers.]

Full Suits

This category includes armors that provide full body coverage, from head to toe. They are combat armors and only worn by those expecting heavy confrontations. Full suits use a combination of rigid and flexible materials, like ceramics, dense alloys and synthetic fibers, and concentrate their protective values in the torso and head. Because they cover the body completely, they provide effective protection against fire and concussion waves, and some protection against corrosives and sound-based attacks.

[All full suits are medium armors. They cannot be concealed. All of them come with helmets.]

Polymer Bodysuits

The polymer bodysuit offers slightly better protection than ballistic clothing while retaining its concealability. Since it fits tightly over the body, it can be easily concealed under normal clothing. It isn't nearly as comfortable as ballistic clothing: a bodysuit is known to promote sweating and sometimes causes a persistent abdominal

Ballistic Clothing Templates

Template	Resistance	Maximum Dex Bonus	Armor Penalty	Speed	Weight	Purchase DC	Restriction
Light*	Ballistic 2	Unlimited	0	30	0.1 lbs	14	--
Moderate*	Ballistic 3	Unlimited	0	30	0.5 lbs	15	--
Heavy*	Ballistic 4	+8	0	30	1 lb	16	--

[*Light: Light ballistic clothing can be made into any form of clothing.]

[*Moderate: Moderate ballistic clothing is made into a jacket or suit.]

[*Heavy: Heavy ballistic clothing is made into an overcoat.]

Full Suit Templates

Template	Resistance	Maximum Dex Bonus	Armor Penalty	Speed	Weight	Purchase DC	Restriction
Semimetallic	Acid 1, Ballistic 9, Bludgeoning 8, Concussion 4, Fire 2, Piercing 8, Slashing 8, Sonic 1	+3	-4	25	13 lbs	22	Mil
Ceramic	Acid 2, Ballistic 10, Bludgeoning 9, Concussion 6, Electrical 6, Fire 4, Piercing 9, Slashing 9, Sonic 2	+3	-4	25	15 lbs	24	Mil
Superalloy	Acid 3, Ballistic 11, Concussion 8, Fire 6, Piercing 10, Slashing 10, Sonic 2	+2	-5	20	20 lbs	26	Mil

itching.

[All bodysuits are light armors. They cannot be detected if they're concealed under clothes.]

Servo-Assisted Armored Suits

The pinnacle of modern armor technology, SAAS are full body suits made from superhard materials, mostly a mix of dense ceramics and tungsten carbide. They would be too heavy for a man to move in them if they didn't incorporate hydraulic servomotors which increase the user's strength tenfold. Although they are extremely expensive, a person encased in a SAAS is all but immune to personal weapons and many other forms of attack. SAAS are shielded from electromagnetic attacks and often contain useful add-ons like air filters or targeting systems.

[All SAAS are heavy armors. They are completely protected by electromagnetic attacks (pulsers, pulse grenades and anything else with the magnetic damage type) as is their wearer. A SAAS will provide its user with a Strength score, usable when he's wearing it. This Strength isn't affected by the user's Strength or by any cyberware, bioware or other equipment he has. If the user has a greater Strength score (unlikely), he uses his own Strength instead. A SAAS' weight is ignored for pur-

poses of determining the load a character carries, because it is handled exclusively by the servomotors. All SAAS operate on small power generators which provide power to the suit's systems for one day of continuous operation. When power runs out, the servos are immobilized and the user finds himself trapped in an armor he can't possibly move on his own.]

[All SAAS feature a helmet with tactical HUD, light amplification (as starlight goggles), flare suppression, built-in radio comm. And a filtered air supply (protecting against gases and airborne biological agents). SAAS are sealed armors, meaning that they are airtight and watertight, sealing the user from the exterior environment (except perhaps from the air supply). They also have thermal insulation and full temperature control (internal heating and cooling system), providing a +5 equipment bonus to Fortitude saves against cold and heat.]

[Each SAAS will have one or more mounts for heavy weapons. A SAAS is able to mount up to a Huge weapon under one of its arms; such a weapon is considered securely mounted, cannot be disarmed and frees up the user's arm for other tasks. It will reduce recoil penalties as a tripod does (by 6 points).]

Vests

Vests are heavier than ballistic clothing or polymer body-

Polymer Bodysuit Templates

Template	Resistance	Maximum Dex Bonus	Armor Penalty	Speed	Weight	Purchase DC	Restriction
Light	Ballistic 3, Piercing 1	+8	0	30	1 lb	13	--
Moderate	Ballistic 4, Electrical 1, Piercing 2	+8	0	30	2 lbs	14	--
Heavy	Ballistic 5, Electrical 2, Piercing 3	+6	-1	30	3 lbs	15	--

SAAS Templates

Template	Resistance	Maximum Dex Bonus	Armor Penalty	Speed	Weight	Purchase DC	Restriction
Recon*	Acid 8, Ballistic 12, Bludgeoning 14, Concussion 10, Electrical 6, Fire 8, Piercing 12, Slashing 12, Sonic 4	+1	-6	20	150 lbs	36	Mil
Assault*	Acid 10, Ballistic 13, Bludgeoning 14, Concussion 14, Electrical 8, Fire 10, Piercing 12, Slashing 12, Sonic 6	+0	-7	20	200 lbs	38	Mil
Support*	Acid 10, Ballistic 15, Bludgeoning 16, Concussion 16, Electrical 8, Fire 12, Piercing 14, Slashing 16, Sonic 8	+0	-8	20	300 lbs	42	Mil

[*Recon: A reconnaissance SAAS has effective Strength 22 and can mount one heavy weapon.]

[*Assault: An assault SAAS has effective Strength 25 and can mount one heavy weapon.]

[*Support: A support SAAS has effective Strength 28 and can mount two heavy weapons (one under each arm).]

suits and not as easily concealable, but they compensate for these drawbacks with better protection against a variety of attacks. They cover the torso and abdomen, sometimes accompanied by a helmet. They're extensively used by security personnel, the police and everyone else who doesn't mind advertising his use of armor.

concealed under bulky clothing, but can be detected by someone succeeding in a Spot check (the DC is noted in the template's statistics). The Purchase DC noted in the parenthesis applies if you want to buy a helmet along with the vest; wearing a helmet of course negates any attempt to conceal the armor.]

[All vests are light armors. The thinnest of them can be

Vest Templates							
Template	Resistance	Maximum Dex Bonus	Armor Penalty	Speed	Weight	Purchase DC	Restriction
Fiber*	Ballistic 6, Electrical 2, Piercing 3, Slashing 3	+6	-1	30	4 lbs	16 (17)	--
Hybrid*	Ballistic 7, Bludgeoning 2, Piercing 4, Slashing 4	+6	-2	30	8 lbs	17 (18)	Lic
Ceramic*	Ballistic 8, Bludgeoning 4, Electrical 4, Piercing 6, Slashing 6	+5	-2	30	10 lbs	19 (20)	Res

[*Fiber: Spot DC 20 to detect under clothing.]

[*Hybrid: Spot DC 15 to detect under clothing]

[*Ceramic: Cannot be concealed under clothing.]

SPECIFIC ARMORS

[All specific armors are based on one of the weapon templates found in this book. Some of them are distinct because they differ in one or more statistics from the basic template, while others have integral add-ons and modifications, usually at a smaller cost than adding them separately. All specific armors however, follow the template rules unless stated otherwise. Integral add-ons and modifications are already figured in the Purchase DC of the armor.]

Model	Notes	Template	Resistance	Maximum Dex Bonus	Armor Penalty	Speed	Weight	Purchase DC	Restriction
TraumaTek Juggernaut		Assault SAAS	Acid 10, Ballistic 13, Bludgeoning 14, Concussion 14, Electrical 8, Fire 10, Piercing 12, Slashing 14, Sonic 6	+0	-7	20	200	38	Mil
CombaTech BlastShield		Ceramic full suit	Acid 3, Ballistic 10, Bludgeoning 9, Concussion 8, Fire 6, Piercing 9, Slashing 9, Sonic 2	+3	-4	25	15	24	Mil
CombaTech PolarShield	Thermal insulation (+5 equipment bonus to Fortitude saves vs cold).	Ceramic full suit	Acid 3, Ballistic 10, Bludgeoning 9, Concussion 8, Fire 12,, Piercing 9, Slashing 9, Sonic 2	+3	-4	25	15	26	Mil
CombaTech PyroShield		Ceramic full suit	Acid 3, Ballistic 10, Bludgeoning 9, Concussion 8, Fire 12, Piercing 9, Slashing 9, Sonic 2	+3	-4	25	15	26	Mil
Vikron Hi-Ceram	Includes helmet.	Ceramic vest	Ballistic 8, Bludgeoning 4, Electrical 4, Piercing 6, Slashing 6	+5	-2	30	10	20	Res
CombaTech SecureShield	Includes helmet.	Fiber vest	Ballistic 6, Electrical 2, Piercing 3, Slashing 3	+6	-1	30	4	17	--
Vikron Coat Plus	Shaped as an overcoat.	Heavy ballistic clothing	Ballistic 4	+8	0	30	1	16	--
Vikron Uni Plus		Heavy bodysuit	Ballistic 5, Electrical 2, Piercing 3	+6	0	30	3	15	--
TraumaTek Thorax	Includes helmet.	Hybrid vest	Ballistic 7, Bludgeoning 2, Electrical 4, Piercing 4, Slashing 4	+6	-2	30	8	18	Lic
TraumaTek Impact Shirt	Shaped as a shirt.	Light ballistic clothing	Ballistic 2	Unlimited	0	30	0.1	14	--
CombaTech UrbanShield		Light bodysuit	Ballistic 3, Piercing 1	+8	0	30	1	13	--
TraumaTek Impact Suit	Shaped as a business suit.	Moderate ballistic clothing	Ballistic 3	Unlimited	0	30	0.5	15	--
TrumaTek Impact Suit Plus	Shaped as an evening suit (or dress for the ladies) with the signature of a major fashion designer.	Moderate ballistic clothing	Ballistic 3	Unlimited	0	30	0.5	17	--
CombaTech StreetShield		Moderate bodysuit	Ballistic 4, Electrical 1, Piercing 2	+8	0	30	2	14	--

Model	Notes	Template	Resistance	Maximum Dex Bonus	Armor Penalty	Speed	Weight	Purchase DC	Restriction
TrumaTek SEAL Edition	Divers' suit with thermal insulation (+5 equipment bonus to Fortitude saves vs cold).	Moderate bodysuit	Ballistic 4, Electrical 1, Piercing 2	+8	0	30	2	16	--
TraumaTek Jaguar		Recon SAAS	Acid 8, Ballistic 12, Bludgeoning 12, Concussion 10, Electrical 6, Fire 8, Piercing 11, Slashing 12, Sonic 4	+1	-6	20	150	36	Mil
Vikron Orca	Has an independent air supply that can last for 2 hours and a hydromagnetic turbine that, when deployed, provides a speed of 45 ft per round in water. It can descend to a 500 yards depth.	Recon SAAS	Acid 8, Ballistic 12, Bludgeoning 12, Concussion 10, Electrical 6, Fire 8, Piercing 11, Slashing 12, Sonic 4	+1	-6	20	150	40	Mil
TraumaTek Cavalier		Semimetallic full suit	Acid 1, Ballistic 9, Bludgeoning 8, Concussion 4, Electrical 4, Fire 2, Piercing 8, Slashing 8, Sonic 1	+3	-4	25	13	22	Mil
CombaTech ThreatShield		Superalloy full suit	Acid 3, Ballistic 11, Bludgeoning 10, Concussion 8, Fire 6, Piercing 10, Slashing 10, Sonic 2	+2	-5	20	20	26	Mil
TraumaTek Desert Warrior	Internal cooling system (+5 equipment bonus to Fortitude saves vs heat).	Superalloy full suit	Acid 3, Ballistic 11, Bludgeoning 10, Concussion 8, Fire 6, Piercing 10, Slashing 10, Sonic 2	+2	-5	20	20	28	Mil
Vikron Behemoth		Support SAAS	Acid 10, Ballistic 15, Bludgeoning 16, Concussion 16, Electrical 8, Fire 12, Piercing 14, Slashing 16, Sonic 8	+0	-8	20	300	42	Mil

AMMUNITION

Special Ammunition

Ceramic Bullets

Ceramic bullets function normally against soft targets, but they shatter upon impact with a hard surface. They're used in cases when collateral damage is more dangerous than active opponents, for example inside nuclear facilities or orbital stations.

[Ceramic bullets are available for assault rifles, autoloaders, machine pistols, revolvers, sniper rifles and submachine guns. Double the ballistic resistance of an armor or hardness of an object against ceramic bullets. All damage is negated if the ballistic resistance or hardness is greater than 4 (the original value, not the doubled one).]

Dragonbreath Shells

These are probably the nastiest shells one can load a shotgun with. A dragonbreath shell is essentially a load of thermite that burns at 4,000°C, turning a shotgun into a mini-flamer. However, the high temperature developed may prove disastrous for the shotgun.

[Dragonbreath shells are available for shotguns. A shotgun firing such shells doesn't use the usual shotgun rules. Instead, it produces a 3d6 wide, 15 ft long stream of flames. No attack roll is necessary; anyone in that stream takes 3d6 fire damage and may make a Reflex save (DC 15) for half damage. Anyone taking damage is automatically set on fire. After the attack, make a d% roll. On a 01-20 the shotgun's barrel is warped from the heat and destroyed.

Dual-Purpose Bullets

These bullets are called dual-purpose because they perform well against both armored and unarmored targets. Each has a soft case designed to fragment, as well as a steel rod at its core. When striking an unarmored target, the bullet's case breaks inside the wound maximizing the damage caused. On the other hand, against armor the soft core deforms while the steel rod slides free and acts as an armor-piercing round.

[Dual-purpose bullets are available for autoloaders, re-

volvers, machine pistols, submachine guns, assault rifles, sniper rifles and railguns. Against a target without ballistic resistance or hardness, they are treated as hollow-points. Against a target with ballistic resistance or hardness, they are treated as steel penetrators.]

Explosive Bullets

These bullets contain a stable explosive charge at their tips, designed to detonate milliseconds after impact, giving them some time to penetrate armor.

[Explosive bullets are available for medium and heavy autoloaders, medium and heavy revolvers, heavy machine pistols, submachine guns, assault rifles, sniper rifles, gatling guns (except from the mini-gatling) and railguns. They inflict 25% secondary damage but do not modify ballistic resistance or hardness.]

Full Metal Jacket Bullets

These bullets have a hard metal jacket that doesn't break as easily inside the body. Being slightly heavier, they carry more kinetic energy, but don't cause massive tissue trauma. They are considered more humane than bullets that fragment inside the wound and are used by most militaries.

[Full metal jacket bullets are available for assault rifles, autoloaders, gatling guns, machine pistols, machine guns, sniper rifles and submachine guns. They inflict +1 damage, but their critical range is smaller by 1 number (eg 20 instead of 19-20), although it can't be less than 20.]

Glaser Safety Bullets and Slugs

Possibly the deadliest small arms ammunition in existence, a glaser round has a ceramic seal containing buckshot pellets behind it. When it hits a target the seal breaks, releasing the pellets in a semi-spherical shape. Glasers cause massive tissue trauma and many people have died from shock after taking a hit in a non-vital area. Glasers are next to useless against even light armor, as the seal breaks on impact with a hard surface and the pellets are expended before penetrating into the body. The "safety" part comes from the fact that a glaser is impos-

sible to overpenetrate (ie it will not shoot through a target to someone standing behind him).

[Glasers are available for heavy autoloaders and revolvers and as shotgun slugs. They do 100% secondary damage but an armor's ballistic resistance is multiplied by 8 and an object's hardness by 5).

HEAP Bullets

High-explosive armor-piercing bullets are less expensive than tungsten penetrators and more capable of piercing armor, but they have low lethality. A HEAP bullet resembles an explosive bullet, but the explosive payload is a shaped charge that, upon detonating, transforms the metal tip of the bullet into a pencil-thin jet of liquid metal with speed that equals 25 times that of sound. This liquid metal jet penetrates almost any armor very effectively, but doesn't have great lethality because of its thinness.

[HEAP bullets are available for assault rifles, autoloaders, gatling guns, machine guns, machine pistols, railguns, sniper rifles and submachine guns. They ignore up to 10 points of ballistic resistance or hardness the target has. After ballistic resistance or hardness applies, halve the remaining damage.]

Hollowpoint Bullets

These bullets have a hollow space behind their tip and because of that fragment inside the body, causing massive wounds (it's common to see a small entry wound and a huge exit wound). They perform very poorly against armored or hard targets, since they tend to shatter when they encounter resistance without actually penetrating. Someone who knows what he's doing can easily craft home-made hollowpoints by using a sharp knife to cut a cross-shaped notch at the bullet's tip until the soft lead core is exposed (this is called a dum-dum round). Hollowpoints have been known to cause jams when firing on autofire, so they're not commonly used in automatic weapons.

[Hollowpoints are normally available for autoloaders and revolvers, although with a Craft (mechanical) check (DC 10) you can turn any standard bullet into a hollowpoint one. Hollowpoints inflict 50% secondary damage but triple an armor's ballistic resistance or an object's hardness. When making an autofire or burst fire attack, roll a d% before the attack roll; there is a 20% chance of a jam occurring (a jam needs a full-round action to repair before the weapon can be fired again).]

Jacketed Hollowpoint Bullets

These are hollowpoint bullets with a hard metal jacket that keeps together better when going through hard materials. They don't fragment as much as regular hollowpoints, but are more effective against armor. They're also less prone to malfunctions when used in automatic weapons.

[Jacketed hollowpoints are available for assault rifles, autoloaders, machine pistols, revolvers, sniper rifles and submachine guns. They can't be simply crafted like hollowpoints can. They inflict 25% secondary damage, but multiply an armor's ballistic resistance or an object's hardness by 1.5. When making an autofire or burst fire attack, roll a d% before the attack roll; there is a 10% chance of a jam occurring (a jam needs a full-round action to repair before the weapon can be fired again.)]

Narrow Shot

These buckshot shells have their pellets arranged in such a shape as to decrease their dispersal after they leave the muzzle. They don't have great accuracy but they're more deadly at long range than normal buckshot.

[Narrow shot is available for shotguns. It follows the rules for buckshot, except that it doesn't give any bonus to the attack roll and only loses 1 point of damage per 2 full range increments.]

Plastic Bullets

These soft bullets transfer their kinetic energy to the target, but do not penetrate into the body. They are extensively used by the police against rioting crowds. Technically non-lethal, they can be deadly if they score a head or neck hit.

[Plastic bullets are available for assault rifles, autoloaders, machine pistols, revolvers, submachine guns and sniper rifles. They inflict non-lethal damage, except if they score a critical hit in which they do lethal damage. An object's hardness is doubled against plastic bullets. If an armor has bludgeoning resistance, use twice its level to resist damage by a plastic bullet if it's higher than the armor's ballistic resistance. An armor or object with bludgeoning resistance or hardness greater than 4 (the original value, not the doubled one) negates all damage by a plastic bullet.]

Standard Ammunition

Type	Quantity	Purchase DC	Type	Quantity	Purchase DC
10-gauge shotgun slugs	10	5	Light machine pistol bullets	50	4
10-gauge shotgun buckshot	10	5	Light revolver bullets	50	4
12-gauge shotgun buckshot	10	4	Light sniper rifle bullets	20	4
12-gauge shotgun slugs	10	4	Light submachine gun bullets	50	5
16-gauge shotgun buckshot	10	4	Medium autoloader bullets	50	5
16-gauge shotgun slugs	10	4	Medium machine gun bullets	20	4
Gatling cannon shells	20	7	Medium revolver bullets	50	5
Hand flamer fuel tank	1	5	Medium sniper rifle bullets	20	4
Hand taser battery	1	4	Mini gatling bullets	50	4
Heavy assault rifle bullets	20	4	Needler handgun flechettes	50	4
Heavy autoloader bullets	50	6	Needler rifle flechettes	50	4
Heavy flamer fuel tank	1	7	Needler SMG flechettes	50	4
Heavy laser rifle battery	1	8	Point-defense gatling bullets	20	4
Heavy machine gun bullets	20	6	Portable gatling bullets	20	4
Heavy machine pistol bullets	50	5	Powerful compressor gun 7-shot canister	1	5
Heavy pulse laser battery	1	9	Projectile taser capacitor flechettes	5	7
Heavy revolver bullets	50	6	Pulse laser rifle battery	1	8
Heavy sniper rifle bullets	20	6	Pulser battery	1	6
Heavy submachine gun bullets	20	4	Rail handgun rounds	20	3
Laser handgun battery	1	6	Rail machine gun rounds	20	4
Laser rifle battery	1	7	Rail rifle rounds	20	3
Lethal compressor gun 5-shot canister	1	6	Reduced assault rifle bullets	20	4
Light assault rifle bullets	20	4	Screamer battery	1	3
Light autoloader bullets	50	4	Standard compressor gun 10-shot canister	1	5
Light machine gun bullets	20	4	Underbarrel flamer fuel tank	1	4

Plastic Shot

This is buckshot containing plastic pellets that hurt like hell but do no lasting damage in most cases.

[Plastic shot is available for shotguns and follows the rules for buckshot. It inflicts non-lethal damage, except if it scores a critical hit in which case it does lethal damage. Plastic shot has a 19-20 critical range. An object's hardness is quadrupled instead of just doubled against plastic shot. If an armor has bludgeoning resistance, quadruple it and use it instead of thrice the ballistic resistance if it's higher. An armor or object with bludgeoning resistance or hardness greater than 4 (the original value, not the increased one) negates all plastic shot damage.]

Shok-Lok Slugs

These special metal-ceramic shotguns slugs turn into a fine powder when impacting anything hard. They are used by the police to shoot locks and hinges off doors without harming those on the other side.

[Shok-lok slugs are only available for shotguns. Halve the hardness of a door when used against its hinges or lock.]

Spider Shells

These fragile capsule shells break upon impact with the target to splash him with their content: a special foam which hardens when exposed to air, similar to that used in spider grenades. Designed to immobilize rather than kill, each box of spider shells comes with a bottle of catalyst capable of dissolving the foam within half a minute.

[Spider shells are only available for shotguns. Someone hit by a spider shell takes no damage but has to make a Reflex save (DC 13 for a 16-gauge shotgun, 15 for a 12-gauge shotgun or 17 for a 10-gauge shotgun). On a failure, he is trapped by the foam and paralysed. Even if he succeeds, the foam still restricts his movements (halving his speed and giving -4 Dexterity) until it is removed. The foam has hardness 5 and 10 hit points; if it's attacked directly the target suffers one point of damage himself

Special Ammunition

Type	Quantity	Purchase DC	Restriction
Ceramic bullets	As standard	Standard + 0	Lic
Dragonbreath shells	1	15	Res
Dual-purpose bullets	As standard	Standard + 7	Res
Explosive bullets	As standard	Standard + 4	Mil
Full metal jacket bullets	As standard	Standard + 0	Lic
Glaser safety bullets	As standard	Standard + 3	Lic
Glaser safety slugs	As standard	Standard + 3	Lic
HEAP bullets	As standard	Standard + 7	Mil
Hollowpoint bullets	As standard	Standard + 0	Lic
Jacketed hollowpoint bullets	As standard	Standard + 1	Lic
Narrow shot	As standard	Standard + 0	Lic
Plastic bullets	As standard	Standard + 0	Lic
Plastic shot	As standard	Standard + 0	Lic
Shok-lok slugs	As standard	Standard + 1	Lic
Spider shells	1	15	Lic
Starflash shells	1	12	Lic
Steel penetrator bullets	As standard	Standard + 5	Res
Steel penetrator slugs	As standard	Standard + 5	Res
Subsonic shells	As standard	Standard + 0	Res
Tear gas shells	1	11	Lic
Tracer bullets	As standard	Standard + 1	Lic
Tracer bullets, dim	As standard	Standard + 2	Res
Tungsten penetrator bullets	As standard	Standard + 9	Mil
Tungsten penetrator slugs	As standard	Standard + 9	Mil
Wide shot	As standard	Standard + 0	Lic

for every point of damage rolled over the foam's hardness. The safe way to free a trapped character is by using the catalyst, which takes a full-round action to apply and will dissolve the foam in 5 rounds.]

Starflash Shells

These low-velocity shotgun shells have an effect similar to flash-bang grenades.

[Starflash shells are only available for 12-gauge and 10-gauge shotguns. A shotgun firing starflash shells is considered to have range increment 70 ft and maximum range 300 ft; the shell is targeted at a square like a thrown explosive and scatters if it misses. A starflash shell doesn't cause any damage but anyone within 20 ft facing its impact point must make a Fortitude save (DC 15) to avoid being blinded for d4+2 rounds. A character with flare suppression is immune to this effect. Furthermore, anyone within 20 ft regardless of his facing must make a Fortitude save (DC 15) or be deafened for d6+6 minutes. A character with noise suppression or a soundproof helmet

is immune to this effect; good ear plugs give a +4 bonus to the Fortitude saving throw.]

Steel Penetrator Bullets and Slugs

These rounds have a steel core that is hard enough to go through most personal armors. They have superior armor-piercing capabilities, but they tend to pass through a target cleanly without tumbling or deforming, minimizing the trauma caused.

[Steel penetrators are available for assault rifles, auto-loaders, gatling guns, machine guns, machine pistols, rail-guns, sniper rifles and submachine guns, and as slugs for shotguns. They ignore up to 4 points of ballistic resistance or hardness the target has. After ballistic resistance or hardness is applied, further reduce the remaining damage by 25%.

Subsonic Bullets

These bullets have a reduced charge so as to attain subsonic speeds and void the supersonic crack that is the second largest source of gunfire noise after the muzzle bang. Subsonic bullets have been developed to work along with a sound suppressor, reducing gunfire noise to a barely audible sound, although their lower velocity makes them less powerful.

[Subsonic bullets are available for autoloaders, revolvers, machine pistols, submachine guns, sniper rifles and assault rifles. After the ballistic resistance or the hardness of the target applies, reduce the remaining damage by 25%. Increase the Listen DC to detect a shot from a weapon equipped with a sound suppressor by 5.]

Tear Gas Shell

This is a low-velocity shotgun shell containing tear gas. It is often used by the police.

[Tear gas shells are available only for 12-gauge and 10-gauge shotguns. A shotgun firing tear gas shells is considered to have range increment 70 ft and maximum range 300 ft; the shell is targeted at a square like a thrown explosive and scatters if it misses. A tear gas shell doesn't cause any damage but on the round it impacts it fills a 5 ft radius area around it with tear gas. On the following round, it fills a 10 ft radius with tear gas. The tear gas cloud disperses in 10 rounds, but a moderate wind (11-21 mph) will disperse it in 4 rounds and a strong wind (21+ mph) will disperse it in 1 round. The effects of tear gas are described in a later section.]

Tracer Bullets

Commonly used in military automatic weapons, where they are mixed with other kinds of ammunition, tracers have an incendiary substance at their base that leaves a fiery trail when they're fired, assisting in guiding a burst to the target. The so-called dim tracers use an incendiary that leaves a trail only visible in the infrared, useful for when you don't want to reveal your position to the target. Tracers are most effective in the dark, where their trail can be seen far away.

[Tracers are available for machine guns, rail machine guns and gatling guns. They can be mixed with other types of ammunition at the rate of 1 tracer for every 4 other rounds. If this is the case, use the effects of the other rounds when an attack with the weapon is successful. Tracers give a +1 fire control bonus to attack rolls for autofire or burst fire made against a target that is up to

100 ft away in broad daylight, 300 ft away in lowlight or up to 1,000 ft away in darkness. Dim tracers can only be seen by those with infrared vision; the firer needs to have infrared vision himself to take advantage of them.]

Tungsten Penetrator Bullets and Slugs

These rounds have a core made from tungsten carbide, which is one of the hardest materials known. Although expensive, they are among the most efficient armor-piercing rounds available. Like steel penetrators, they cause minimal tissue trauma.

[Tungsten penetrators are treated like steel penetrators, but ignore up to 7 points of ballistic resistance or hardness.]

Wide Shot

These buckshot shells have their pellets arranged in such a shape as to increase their dispersal after they leave the muzzle. They increase accuracy at close range but rapidly lose lethality.

[Wide shot is available for shotguns. It follows all rules for buckshot, except that it gives a +2 circumstance bonus to the attack roll and loses 2 points of damage per full range increment.]

Grenades

Grenades are personal explosives which come in three main forms: hand, 40 mm and rifled grenades. Hand grenades are designed to be thrown by the user. 40 mm grenades are designed to be used by a grenade launcher and are smaller than hand ones. Rifled grenades are used in conjunction with an assault rifle: the grenade fits over the rifle's muzzle and is launched when the rifle is fired, "trapping" the bullet in its bore. Advancement in weapon technology has also produced two additional subgroups, airburst and cluster grenades. Airbursts use a range-finder to determine distance to the target and explode in their air above it, minimizing available cover. Cluster grenades work similarly to airbursts, but they contain small explosive charges which spread over an extended area.

[Hand grenades: Hand grenades don't require any feat to be thrown; any character is considered proficient in their use. They have a range increment of 10 ft and cannot be airbursts or cluster grenades.]

[40 mm grenades: 40 mm grenades can only be fired by a grenade launcher. They arm after traveling at least 30 ft, so they can't be used at a target closer than 30 ft. They can be used in conjunction with a rangefinder to determine their arming distance more accurately.]

[Rifled grenades: Rifled grenades can only be fired by an assault rifle. You need to take a move action to fit the grenade on the rifle's muzzle prior to firing it. Rifled grenades arm after traveling at least 30 ft, so they can't be used at a target closer than 30 ft. They can be used in conjunction with a rangefinder to determine their arming distance more accurately.]

[Airburst grenades: Airbursts are either 40 mm or rifled grenades and need a rangefinder to work properly. Before firing an airburst, you have to calculate range to the target using the rangefinder (this takes a move action). If the targeted area doesn't have cover from above (like a roof), an airburst will negate all cover bonuses to Defense or Reflex saves. If it misses its intended target an airburst will not detonate, so don't bother determining scatter.]

[Cluster grenades: Cluster grenades function exactly like airbursts, but they have 50% more burst radius because of the numerous charges they deploy.]

Canister

Canister grenades are only available for grenade launchers. A canister grenade is essentially a load of pellets, turning a grenade launcher into a shotgun for when combat becomes up, close and personal.

[A canister grenade doesn't follow any of the usual rules for grenades and explosives. The spray of pellets it produces must be aimed directly at one target (using his Defense), who doesn't get a saving throw to halve damage. A grenade launcher firing a canister round is considered to have 30 ft range increment and 17-20 critical range. A canister gives a +1 circumstance bonus to the attack roll, but loses one point of damage per full range increment. It deals 50% secondary damage, but triples the ballistic resistance of armor and doubles an object's hardness.]

[Canister grenades cannot be airbursts or cluster grenades and don't have a minimum arming distance (ie they can be fired on a target closer than 30 ft away.)]

Concussion

This grenade only carries an explosive charge without any

fragmentation. It is also called an "offensive" grenade, because the user can throw it during a charge without having to worry about fragments hitting him.

Dual-Purpose

A dual-purpose grenade resembles a usual fragmentation hand grenade, until a pin is removed in which case the hard outer shell breaks away in pieces and all that remains is the soft inner shell and the explosive case, thus turning the grenade into a concussion one. The fragmentation shell can be reassembled back in its position, although this takes more time than removing it.

[A dual-purpose grenade is only available as a hand grenade. It normally deals 4d6 slashing damage. By taking a move action to remove the outer shell, it inflicts 4d4 concussion damage. Putting the shell back into place takes 3 rounds.]

Flash-Bang

These non-lethal grenades explode with a bright flash and a loud bang, temporarily blinding and deafening. They are a favorite of security forces and special police squads in hostage situations.

[A flash-bang grenade is available as a hand grenade or as a 40 mm grenade. When it detonates, everyone within its burst radius facing its impact point must make a Fortitude save (DC 15) or be blinded for d4+2 rounds. A character with flare suppression is immune to this effect. Furthermore, everyone within its blast radius, regardless of their facing, must make a Fortitude save (DC 15) or be deafened for d6+6 minutes. A character with noise suppression or a soundproof helmet is immune to this effect; good ear plugs give a +4 bonus to the Fortitude saving throw.]

Flechette

A flechettes grenade uses a small explosive charge to shower the area with the deadly needle-like flechettes it carries. It is very lethal against unprotected targets but can't penetrate hard materials.

[A flechette grenade inflicts 50% secondary damage but triples the ballistic resistance of an armor and doubles an object's hardness.]

Fragmentation

This grenade has a pre-fractured case that shatters in

Grenade	Damage	Damage Type	Burst Radius	Reflex DC	Size	Weight	Purchase DC	Restriction
Canister, 40 mm	3d10	Ballistic	--	--	Tiny	1 lb	12	Res
Concussion, 40 mm	3d4	Concussion	15 ft	15	Tiny	1 lb	15	Res
Concussion, hand or rifled	4d4	Concussion	20 ft	15	Tiny	2 lbs	15	Res
Dual-purpose, hand	4d6 or 4d4	Slashing or Concussion	20 ft	--	Tiny	2 lbs	16	Res
Flash-bang, hand or 40 mm	--	--	30 ft	--	Tiny	1 lb	13	Res
Flechette, 40 mm	3d6	Ballistic	15 ft	15	Tiny	1 lb	16	Res
Flechette, hand or rifled	4d6	Ballistic	20 ft	15	Tiny	2 lbs	16	Res
Fragmentation, 40 mm	3d6	Slashing	15 ft	15	Tiny	1 lb	15	Res
Fragmentation, hand or rifled	4d6	Slashing	20 ft	15	Tiny	2 lbs	15	Res
Gas, 40 mm	--	--	--	--	Tiny	1 lb	12	Lic
Gas, hand or rifled	--	--	--	--	Tiny	2 lbs	12	Lic
HEAP, 40 mm	4d6	Concussion	5 ft	15	Tiny	1 lb	18	Mil
HEAP, rifled	5d6	Concussion	5 ft	15	Tiny	2 lbs	18	Mil
High explosive, 40 mm	4d4	Concussion	20 ft	15	Tiny	1 lb	17	Mil
High explosive, hand or rifled	5d4	Concussion	25 ft	15	Tiny	2 lbs	17	Mil
Pulse, 40 mm	2d6	Magnetic	20 ft	--	Tiny	1 lb	18	Mil
Pulse, hand or rifled	3d6	Magnetic	30 ft	--	Tiny	2 lbs	18	Mil
Smoke, 40 mm	--	--	--	--	Tiny	1 lb	11	Lic
Smoke, hand or rifled	--	--	--	--	Tiny	2 lbs	10	Lic
Spider, 40 mm	--	--	5 ft	--	Tiny	1 lb	16	Lic
Spider, hand	--	--	10 ft	--	Tiny	2 lbs	16	Lic
Stingball, 40 mm	3d6	Bludgeoning (non-lethal)	15 ft	15	Tiny	1 lb	11	Lic
Stingball, hand	4d6	Bludgeoning (non-lethal)	20 ft	15	Tiny	2 lbs	11	Lic
White Phosphorous, 40 mm	2d6	Fire	10 ft	12	Tiny	1 lb	15	Res
White Phosphorous, hand or rifled	2d6	Fire	20 ft	12	Tiny	2 lbs	15	Res

multiple deadly fragments when it explodes. It is also called a "defensive" grenade, because it is assumed that the user will throw it from cover to avoid getting hit by the fragments.

Gas

A gas grenade is used to deliver a gaseous chemical agent. Most often than not, this is tear gas and in this form these grenades are extensively used by police forces, but gas grenades can also be used in conjunction with deadlier chemicals.

[On the round it impacts, a gas grenade fills a 5 ft radius area around it with the gas it contains. On the following round, it fills a 10 ft radius and on the third round a 15 ft radius (a 40 mm gas grenade can only fill a 10 ft radius). The gas cloud disperses after 10 rounds, although a moderate wind (11+ mph) disperses the gas in 4 rounds and a strong wind (21+ mph) disperses it in one round. Gas gre-

nades cannot be airbursts or cluster grenades.]

HEAP

A high-explosive armor-piercing grenade is only available in 40 mm or rifled form and uses a shaped charge to penetrate through armor. It is very effective at defeating armored targets, but the shaped charge produces very little sideblast.

[A HEAP grenade ignores up to 10 points of concussion resistance or hardness from the target it strikes directly. Other targets within the burst radius are unaffected by this. A HEAP grenade cannot be a cluster grenade (but it can be an airburst).]

High Explosive

A concussion grenade carrying a more potent explosive charge.

Pulse

A pulse grenade doesn't explode per se, but it releases a powerful electromagnetic pulse that is harmless to living creatures and most objects, but devastating against electronic equipment. A pulse grenade's capacitors burn out as they produce the powerful pulse, hence it cannot be recovered and used again.

[A pulse grenade's damage is treated like damage from a pulser.]

Smoke

A smoke grenade doesn't explode, but it releases a cloud of smoke quickly enveloping the surrounding area. Smoke grenades are useful for creating temporary cover and concealment, confusion or as a barrier against lasers (which can't penetrate smoke). The smoke they use contains "hot" particles, so as to block infrared vision.

[On the round it impacts, a smoke grenade fills a 5 ft radius around it with smoke. On the following round it fills a 10 ft radius and on the third round a 15 ft radius (a 40 mm smoke grenade can only fill a 10 ft radius). The smoke obscures all sight, including infrared vision, and harmlessly disperses any laser beam attempting to pass through it (laser sights and laser designators are also useless inside the cloud). Anyone within the cloud has total concealment. The cloud disperses after 10 rounds, although a moderate wind (11+ mph) disperses the smoke in 4 rounds and a strong wind (21+ mph) disperses it in one round. Smoke grenades cannot be airbursts or cluster grenades.]

Spider

Spider grenades are designed to capture an opponent rather than kill him. They explode by releasing a special concentrated foam that hardens within moments when exposed to air. The foam becomes so hard as to successfully immobilize anyone within the grenade's area of effect. Each grenade comes with a bottle of catalyst which can be used to dissolve the foam, freeing those trapped by it.

[Anyone within a spider grenade's burst radius must make a Reflex save (DC 15) or be rendered paralyzed by the foam. Someone who succeeds in his saving throw avoids immobilization, but the foam still restricts his movements (halving his speed and giving -4 Dexterity) until it is removed. The foam has hardness 5 and 10 hit

points any attack directed on it will cause 1 points of damage to the trapped character for every point of damage rolled above its hardness. The safe way to free a trapped character is by using the catalyst, which takes a full-round action to apply and will dissolve the foam in 5 rounds.]

Stingball

Stingball grenades detonate by releasing hard rubber pellets instead of fragments. They are non-lethal weapons designed to disperse rioting crowds.

[Double the bludgeoning resistance of an armor or the hardness of an object against a stingball grenade. Furthermore, a stingball's damage is negated against an armor with bludgeoning resistance or an object with hardness greater than 4 (the original value, not the doubled one).]

White Phosphorous

A white phosphorous is an incendiary explosive that shows an area with burning phosphorous fragments. Phosphorous will almost certainly ignite any flammable material in the area, starting fires that may prove more dangerous than the explosion itself.

[Anyone taking damage from white phosphorous automatically catches on fire.]

Mini-Rockets

The revolutionary 20 mm mini-rockets are designed to be launched from a gyrojet launcher. They have more effective range than grenades and similar damage potential.

[Mini-rockets can only be fired from a gyrojet weapon. They have a maximum range equal to 2,000 ft, regardless of the gyrojet weapon used to launch them. If they miss their intended target, they scatter as thrown explosives. Mini-rockets can't have any of the available targeting systems for rockets, but they can be purchased as airbursts or cluster mini-rockets (functioning similarly to the grenades of that type), requiring a rangefinder to operate.]

Concussion

A standard explosive mini-rocket without any fragmentation.

Mini-Rocket	Damage	Damage Type	Burst Radius	Reflex DC	Size	Weight	Purchase DC	Restriction
Concussion	4d4	Concussion	15 ft	15	Small	2 lbs	17	Mil
Flash-bang	--	--	30 ft	--	Small	2 lbs	15	Mil
Flechette	4d6	Ballistic	20 ft	15	Small	2 lbs	18	Mil
Fragmentation	4d6	Slashing	20 ft	15	Small	2 lbs	17	Mil
Gas	--	--	--	--	Small	2 lbs	14	Mil
HEAP	5d6	Concussion	5 ft	15	Small	2 lbs	20	Mil
High Explosive	5d4	Concussion	25 ft	15	Small	2 lbs	19	Mil
Penetrator	3d6	Ballistic	--	--	Small	2 lbs	20	Mil
Pulse	3d6	Magnetic	30 ft	--	Small	2 lbs	20	Mil
White Phosphorous	2d6	Fire	20 ft	12	Small	2 lbs	17	Mil

Flash-Bang

This is a subdual munition, detonating with a bright flash and a loud bang to temporarily blind and deafen.

[Everyone within the burst radius of a flash-bang mini-rocket facing its impact point must make a Fortitude save (DC 15) or be blinded for d4+2 rounds. A character with flare suppression is immune to this effect. Furthermore, everyone within its burst radius, regardless of their facing, must make a Fortitude save (DC 15) or be deafened for d6+6 minutes. A character with noise suppression or a soundproof helmet is immune to this effect; good ear plugs give a +4 bonus to the saving throw.]

Flechette

This mini-rocket carries a load of flechettes that are lethal to any unprotected target.

A flechette mini-rocket inflicts 50% secondary damage but triples an armor's ballistic resistance and doubles an object's hardness.

Fragmentation

A standard explosive mini-rocket with a heavy fragmenting case.

Gas

A binary munition designed to deliver any dangerous chemical agent.

[On the round it impacts, it fills a 5ft radius around it with the gas it carries. On the following round it fills a 10 ft radius and on the third round a 15 ft radius. The gas cloud disperses in 10 rounds, although moderate wind (11+ mph) will disperse it in 4 rounds and strong wind (21+ mph) will disperse it in one round. A gas mini-rocket cannot be an airburst or a cluster.]

HEAP

A high-explosive armor-piercing mini-rocket, with a shaped charge payload designed to penetrate armor without much sideblast.

[A HEAP mini-rocket ignores up to 10 points of concussion resistance or hardness from the target it strikes directly. Other targets within the burst radius use their normal concussion resistance or hardness. A HEAP mini-rocket cannot be a cluster (but it can be an airburst).]

High Explosive

Akin to the standard explosive mini-rocket, this one carries a heavier payload.

Penetrator

This mini-rocket doesn't have an explosive payload, but breaks up just before striking the target, releasing a slender, aerodynamic, tungsten carbide dart that can go through almost any armor.

[A penetrator mini-rocket must be aimed directly at a target (use the target's Defense) since it has no burst radius. It will ignore up to 15 points of ballistic resistance or hardness the target has. The target doesn't get a Reflex save to halve damage.]

Pulse

This mini rocket doesn't explode, but releases a powerful electromagnetic pulse to disable electronic equipment. It is not reusable.

[A pulse mini-rocket's damage is treated like damage from a pulser.]

White Phosphorous

This is a standard incendiary mini-rocket that will set everything flammable in the affected area on fire.

[Anyone taking damage from a white phosphorous mini-rocket automatically catches on fire.]

Mortar Shells

[These shells are designed to be launched by mortars. Light mortars can only fire the 50 mm version of the shells. Heavy mortars can only fire the 80 mm versions.]

Anti-Personnel

These are high fragmentation shells, sending out hundreds of deadly shrapnel over an extended area. They can decimate an entire infantry squad, but are notoriously ineffective against heavily armored targets.

Explosive

A standard, commonly used shell with explosive filling but little fragmentation.

Gas

A binary munition containing any debilitating or lethal airborne chemical agent.

[On the round a gas shell impacts, it fills a 20 ft radius area around it with the gas it contains. On each following round, the radius of the area the gas fills increases by 20 ft, up to a maximum of 60 ft for a 50 mm shell or 100 ft for a 80 mm shell. The gas cloud disperses after 10 rounds, although a moderate wind (1+ mph) disperses the gas in 4 rounds and a strong wind (21+ mph) disperses it in one round.]

High Explosive

A powerful shell with heavy explosive filling.

Incendiary

Incendiary shells contain a volatile mix of chemicals and create a mini firestorm when they explode.

[Anyone taking damage from an incendiary shell automatically catches on fire.]

Smoke

Smoke shells are a terrific way to quickly set up a cover of smoke.

[On the round a smoke shell impacts, it fills a 20 ft radius area around it with smoke. On each following round, the radius of the area the smoke fills increases by 20 ft, up to a maximum of 60 ft for a 50 mm shell or 100 ft for a 80 mm shell. The smoke cloud disperses after 10 rounds, although a moderate wind (1+ mph) disperses the smoke in 4 rounds and a strong wind (21+ mph) disperses it in one round. The smoke obscures all sight, including infrared vision, and harmlessly disperses any laser beam attempting to pass through it (laser sights and laser designators are also useless inside the cloud). Anyone within the cloud has total concealment.]

Rockets

Rockets are powerful, self-propelled explosive projectiles, somewhat slower than bullets but with greater range and accuracy. The addition of a targeting system makes any rocket a deadly weapon, able to strike a target from a great distance.

[Rockets are launched from rocket launchers, but their maximum range depends on their fuel capacity, not on the range increment of the launcher. There are two general types of rockets: light and heavy ones. Light rockets have maximum range 5,000 ft, heavy rockets have maximum

Mortar Shell	Damage	Damage Type	Burst Radius	Reflex DC	Size	Weight	Purchase DC	Restriction
Anti-personnel, 50 mm	6d6	Slashing	50 ft	15	Small	4 lbs	17	Mil
Anti-personnel, 80 mm	6d6	Slashing	75 ft	15	Medium	6 lbs	19	Mil
Explosive, 50 mm	8d6	Concussion	30 ft	15	Small	4 lbs	17	Mil
Explosive, 80 mm	12d6	Concussion	45 ft	15	Medium	6 lbs	19	Mil
Gas, 50 mm	--	--	--	--	Small	4 lbs	14	Mil
Gas, 80 mm	--	--	--	--	Medium	6 lbs	16	Mil
High explosive, 50 mm	10d6	Concussion	30 ft	15	Small	4 lbs	19	Mil
High explosive, 80 mm	14d6	Concussion	45 ft	15	Medium	6 lbs	21	Mil
Incendiary, 50 mm	6d6	Fire	15 ft	12	Small	4 lbs	17	Mil
Incendiary, 80 mm	8d6	Fire	30 ft	12	Medium	6 lbs	19	Mil
Smoke, 50 mm	--	--	--	--	Small	4 lbs	12	Mil
Smoke, 80 mm	--	--	--	--	Medium	6 lbs	14	Mil

Rocket	Damage	Damage Type	Burst Radius	Reflex DC	Size	Weight	Purchase DC	Restriction
Anti-personnel, heavy	6d6	Slashing	75 ft	15	Large	16 lbs	22	Mil
Anti-personnel, light	6d6	Slashing	50 ft	15	Medium	8 lbs	19	Mil
Anti-vehicle, heavy	15d6	Concussion	10 ft	15	Large	16 lbs	25	Mil
Anti-vehicle, light	10d6	Concussion	10 ft	15	Medium	8 lbs	22	Mil
Explosive, heavy	12d6	Concussion	45 ft	15	Large	16 lbs	22	Mil
Explosive, light	8d6	Concussion	30 ft	15	Medium	8 lbs	19	Mil
Gas, heavy	--	--	--	--	Large	16 lbs	20	Mil
Gas, light	--	--	--	--	Medium	8 lbs	17	Mil
High explosive, heavy	14d6	Concussion	45 ft	15	Large	16 lbs	24	Mil
High explosive, light	10d6	Concussion	30 ft	15	Medium	8 lbs	21	Mil
Incendiary, heavy	8d6	Fire	30 ft	12	Large	16 lbs	22	Mil
Incendiary, light	6d6	Fire	15 ft	12	Medium	8 lbs	19	Mil
Penetrator, heavy	12d6	Ballistic	--	--	Large	16 lbs	25	Mil
Penetrator, light	8d6	Ballistic	--	--	Medium	8 lbs	22	Mil
Pulse, heavy	4d6	Magnetic	75 ft	--	Large	16 lbs	25	Mil
Pulse, light	4d6	Magnetic	50 ft	--	Medium	8 lbs	22	Mil

range 15,000 ft. A rocket that misses its intended target scatters as a thrown explosive weapon. Rockets arm only after they have traveled for 50 ft, so that they can't be fired at a target closer than 50 ft away.]

[Targeting systems: Both the rocket and the rocket launcher must be equipped with the same targeting system for the user to take benefit of it. Details on targeting system can be found in a later section.]

Anti-personnel

These rockets have been designed to take out a large number of personnel, but they perform poorly against hard targets. They rely on high fragmentation effects to shower an extended area with deadly shrapnel.

Anti-vehicle

Anti-vehicle rockets use a powerful shaped charge to penetrate armor. Most of them (especially the heaviest ones) use tandem submunitions to defeat the reactive armor of modern military vehicles, ie they use a small charge designed to initiate the reactive armor, followed by the main charge to pierce main armor. Because of the shaped charge, they have little sideblast.

[An anti-vehicle rocket ignores up to 10 points of concussion resistance or hardness from the target it strikes directly. Other targets within the burst radius use their normal concussion resistance or hardness.]

Explosive

A standard explosive rocket with little to none fragmentation.

Gas

This is a binary munition designed to deliver some lethal chemical agent, which is mixed and evaporated on impact. [On the round the gas rocket impacts, it fills a 20 ft radius area with gas. On each following round, the radius of the area the gas fills increases by 20 ft, up to a maximum of 60 ft for a light rocket or 100 ft for a heavy one. The gas cloud disperses after 10 rounds, although a moderate wind (11+ mph) disperses the gas in 4 rounds and a strong wind (21+ mph) disperses it in one round.]

High Explosive

This rocket carries a more powerful payload than the conventional explosive rocket.

Incendiary

This rocket showers the area surrounding its impact point with deadly chemical fire.

[Anyone taking damage from an incendiary rocket automatically catches on fire.]

Penetrator

This is a non-explosive rocket that accelerates to high velocities and breaks up just before striking the target to

release along, aerodynamic "dart" made from tungsten carbide. At such velocities, the carbide dart can easily pierce through any kind of armor. Although it lacks the massive damage of explosives. A penetrator rocket has superior armor-piercing capabilities.

[A penetrator rocket must be aimed directly at a target (use the target's Defense) since it has no burst radius. It will ignore up to 25 points of ballistic resistance or hardness the target has. The target doesn't get a Reflex save

to halve damage.

Pulse

A pulse rocket doesn't explode but releases a powerful electromagnetic pulse to disable electronic equipment. Its capacitors are burnt out during the generation of the pulse, so that the rocket cannot be retrieved and reused.

[A pulse rocket's damage is treated like damage from a pulser.]

WEAPON ADD-ONS AND MODIFICATIONS

Auto Conversion

Nearly all semi-automatic firearms can be modified so as to be capable of firing 3-round bursts or in full auto by a professional gunsmith.

[This modification can be installed to any firearm firing projectiles that has a "S" Rate of Fire, except from pump shotguns, revolvers and railguns. The Rate of Fire becomes "S, A" and the gun is capable of firing 3-round bursts: it fires 3 bullets when used with the burst fire feat to perform a burst fire attack and can be used with only 3 bullets in the weapon. If an expert performs the modification, the cost for it is the Purchase DC of the weapon minus 4 (minimum 12). If you wish to install the modification yourself, it is considered a task of moderate complexity requiring the Craft (mechanical) skill and a cost equal to the Purchase DC of the weapon minus 6 (minimum 10).]

Bipod

A bipod makes firing a gun from a prone position really comfortable and its weight negates the tendency of the muzzle to climb up after each shot and especially during autofire. A bipod is a common feature of many machine guns and sniper rifles.

[Bipods are available for assault rifles, laser rifles, machine guns, rail machine guns, rail rifles and sniper rifles. Each bipod will only fit weapons belonging to a specific template. Attaching or removing a bipod to a weapon takes a move action. A weapon with an attached bipod reduces recoil penalties by 3 points when fired from a prone position. However, when fired from another position an attached bipod is unwieldy and inflicts a -1 penalty to the attack roll.]

Drum Magazine

A "drum" is a large, circular magazine holding a large number of ammunition. Its large capacity is balanced by its non-existent concealability.

[Drums are available for assault rifles, machine guns

(those not using linked ammo) and submachine guns. A drum magazine holds 50 rounds of ammunition. There are also drums for auto shotguns that hold 20 shells. A weapon with a drum magazine cannot be concealed under clothing, regardless of its size. Replacing a drum magazine is a full-round action.]

Electrothermal Modification

This extensive modification can be installed on most firearms to allow them to take advantage of modern propellant technologies. An electrothermal weapon fires solid projectiles without any propellant embedded in them. Instead, the propellant is a liquid chemical mixture that is injected into the chamber just prior to firing. An electrical arc superheats the inert chemical into plasma that dilates explosively, propelling the bullet to much greater velocities than those achieved with conventional propellants.

[Any autoloader, machine pistol, submachine gun, assault rifle, machine gun, gatling gun or sniper rifle can become an electrothermal weapon. Such a weapon gets a +2 velocity bonus to damage but has its recoil level increased by 1. The cost for making a weapon electrothermal is equal to the weapon's Purchase DC + 5.]

Emergency Link

An add-on used by many security conscious citizens, this device incorporates a microscopic GPS module and a mini cell phone. When the trigger of the weapon is pressed, the cell phone pages the police with the location of the user. It is possible to configure the cell phone to send the location data to a number other than the police. Using a gun with an active emergency link without a good reason is punishable by a hefty fine (Purchase DC 10).

[Although the police receives the data within moments, response time varies according to the user's location.]

Extended Clip

This clip is longer and holds more rounds than regular ones.

[Extended clips exist for all weapons with standard box magazines (not helical clips or saddle drums, for example). An extended clip is purchased for a specific weapon and only fits in that weapon. It holds 25% more rounds than a standard clip.]

Gunlink

A gunlink is the ultimate accessory for those who want total control of their weapon. It automates many of a gun's functions, like activating add-ons and changing settings, and slaves them to a nanocomputer via an input plug that can be connected to a datajack, so that the user can control them with his thought.

[A gunlink can be installed on any ranged weapon and must be connected to a nanocomputer through a datajack to work. It turns the following actions into free actions (no matter how many times they're taken in the same round): 1. Turning on/off a tactical flashlight, laser sight or a laser's targeting beam, 2. Calculating distance to the target with a range finder, 3. Changing the setting of a needler, graser or screamer.]

Helical Clip

Helical clips are large, tubular magazines which can contain a great amount of ammunition arranged in a helical pattern without being as bulky as drum magazines. They are most often mounted on top of a weapon. Helical clips exist in 50-round and 100-round capacity versions and usually require modifications to be made to the weapon before they can be used.

[A helical clip can be purchased for any Small or larger autoloader, machine pistol, mini gatling, submachine gun, assault rifle or machine gun (except from those using linked ammo). The clip will only fit the weapon it was purchased for; Small weapons can only take the 50-round version. Before a weapon can take a helical clip, it needs to be modified by a professional gunsmith (a service with Purchase DC 13 if you take it to an expert or a Craft (mechanical) check of moderate complexity if you do it on your own). Treat a gun with a helical clip as being one size category larger for purposes of determining how well it can be concealed. A helical clip needs a full-round action to be replaced.

Laser Sight

This is a low-power laser device that mounts on a firearm

and projects a tiny red dot on the weapon's target to assist in aiming. Its usefulness depends on how well you are able to see the dot; thus, it is more useful in the dark and than in broad daylight.

[A laser sight can be mounted on any Small or larger weapon. Turning it on or off is a move action. In darkness, it will provide a +1 fire control bonus on all attack rolls made against targets no more than 60 ft away. This effective range is reduced to 30 ft in lowlight conditions and to only 15 ft in broad daylight. Laser sights cannot be used in rain or smoke.]

Muzzle Brake

This accessory fits over one end of any firearms and vents the gases produced by firing at such a vector so as to counter the weapon's recoil. Naturally, a muzzle brake cannot be combined with a sound suppressor, which depends on absorbing the gases.

[A muzzle brake can be added to any firearm except from grenade launchers, gyrojet weapons, railguns and rocket launchers. It will not work along with a sound suppressor. A standard muzzle brake reduces all recoil penalties by 1; an improved version reduces recoil penalties by 2.]

Optical Targeting Module

Optical targeting is a high-tech targeting system for small arms. This module can be installed on any weapon and uses a link with HUD goggles or an optijack to display a crosshair showing where the weapon is pointing at in the user's field of vision.

[An optical targeting module can be added to any ranged weapon and needs HUD goggles or an optijack to work. It provides a +2 fire control bonus to attack rolls.]

Printshield Finish

Highly illegal, this Teflon coating resists dirt and oil so well that no set of prints can be taken from the weapon even after years of use. A must for any criminal.

Propellant Chip

This is a minicomputer installed on a weapon having undergone the electrothermal modification to regulate the dose of propellant used. The chip enables the user to select a dose of propellant that will determine the bullet's velocity according to his needs.

[A propellant chip can be added to any weapon with the

Add-on	Purchase DC	Restriction
Auto conversion	?	III
Bipod	11	--
Drum magazine	7	--
Electrothermal modification	?	Mil
Emergency link	14	--
Extended clip	5	--
Gunlink	15	--
Helical clip, 50-round	10	--
Helical clip, 100-round	12	--
Laser sight	10	--
Muzzle brake, improved	16	Res
Muzzle brake, standard	13	--
Optical targeting module	17	--
Printshield finish	17	III
Propellant chip	18	Mil
Rangefinder	13	--
Saddle drum	8	--
Scangrip, secure	17	--
Scangrip, standard	14	--
Scdope, flare suppression	13	--
Scope, digital	16	--
Scope, magnetic imaging	22	Res
Scope, standard	14	--
Scope, starlite	17	--
Scope, thermographic	18	--
Sound suppressor	10	Res
Tactical flashlight, infrared	9	--
Tactical flashlight, standard	6	--
Tripod	13	--

electrothermal modification. The chip has 3 settings: low, normal and hyper velocity. Low velocity shots are treated as subsonic bullets (although the bullet fired retains its properties if it's special ammo), but they don't get the special +2 damage bonus from the electrothermal modification and the Recoil Level of the weapon is reduced by 1. Normal velocity shots do normal damage (without the +2 bonus of the electrothermal modification). Hyper velocity shots get the +2 damage bonus provided by the electrothermal modification and the Recoil Level is increased by 1.]

Rangefinder

Installed on a rifle or grenade launcher, this device uses a laser to accurately measure the distance to a target and set the arming distance for the grenade's warhead accordingly. A grenade that misses the intended target and scatters won't detonate while controlled by this device. Rangefinders are essential for the use of airbursts and cluster rock grenades, which depend on the targeting information to work properly.

[Rangefinders are available for assault rifles and grenade launchers and work in conjunction with rifled or 400 mm grenades. To use a grenade with a rangefinder you have to calculate the distance to the target by taking a move action prior to firing the grenade. A grenade controlled by a rangefinder won't detonate if it misses the intended target and scatters.]

Saddle Drum

This type of magazine is popular in portable machine guns and sometimes used in assault rifles as well. Also called a "C Mag", it has two drums with a bridge piece and the bullets are fed one round from each drum alternatively.

[A saddle drum is available for assault rifles, light and medium machine guns. It holds 100 rounds of ammunition. A weapon with a saddle drum cannot be concealed under clothing. Replacing a saddle drum takes a full-round action.]

Scangrip

This special electronic device can be installed to any fire-

arms and uses a sensor placed in the weapon's grip to scan the palm print of the person holding the weapon. If the print doesn't match that of the rightful owner (programmed in the device's memory), the scangrip will not release the safety lock. Scangrips are commonly used by police officers, security personnel and anyone afraid that his weapon may be used against him. Secure scangrips use encryption to hamper any tampering attempts. [Only the owner of weapon equipped with a scangrip can use it. Bypassing a scangrip's protection requires the Disable Device skill; a standard scangrip is considered an average security device, a secure scangrip is considered a high quality one.]

Scope

This sighting device mounts on top of a firearm and magnifies the target, making it easier to score a successful hit at long range. However, its limited field of view makes it difficult to use, especially in frantic situations. Apart from the above standard scope, some other interesting options can be added to a scope. These include:

- *Digital: A digital scope is essentially a camera that captures anything the weapon is pointed at and sends it to an output that may be connected to a suitable recording device, HUD goggles or an optijack. If the user has access to the image captured by his scope (through HUD goggles or an optijack), he can use the scope to see what lies around corners and even fire without exposing himself.*
- *Flare suppression: This useful option adds a filter that automatically adjusts the level of light received by the scope to protect the user from being blinded by bright flashes of light.*
- *Magnetic Imaging: Using advanced magnetic resonance technology, this scope is capable of piercing solid obstacles, like doors or walls, to examine what lies beyond them. This requires proximity to the obstacle and the scope isn't capable of seeing through very thick or metallic objects, but it is nevertheless a very useful feature.*
- *Starlight: This scope amplifies the ambient lighting to provide effective vision in darkness. It is however, useless in total darkness.*
- *Thermographic: This scope provides its user with the ability to see in the infrared spectrum of light, ie heat. It functions extremely well, even in total darkness, although the user can only see sources*

of heat (living creatures, vehicles with hot engines etc).

[Scopes can be mounted on any Small or larger firearm. To use a scope, you must first take a move action to acquire the target; if you decide to change targets you must take a new move action to acquire another target. All scopes are assumed to be standard scopes, although you can add any number of options in a standard scope by paying for each one separately. However, after a scope is purchased no additional options may be added at a later time. Options may only be added on a scope fitting a Medium or larger weapon; Small guns can only take standard scopes.]

[Standard: Standard scopes double the range increment of the weapon, but only for the purpose of attacking the target acquired with the scope. Other factors, like the weapon's maximum range or a needler's loss of damage with range, are unaffected by the scope. A standard scope will also reduce penalties for Spot checks to -1 per 50 feet of distance.]

[Digital: If you've linked a digital scope with HUD goggles or an optijack, you can fire around corners with a -4 penalty without exposing anything but your weapon and arms (treat this as nine-tenths concealment).]

[Flare suppression: When looking through the scope, the user has flare suppression.]

[Magnetic imaging: a magnetic imaging scope enables you to see through a non-metallic obstacle up to one ft thick, if you are within 5 ft of it. You need to take a move action to adjust the scope to the right settings to see through an object. Such a thing negates any concealment of the acquired target due to foliage. A magnetic imaging scope doesn't enhance your optical capabilities, so you will still not be able to see through darkness. When using such a scope to see through an obstacle, you can't use infrared vision or the light amplification properties of starlight scopes or goggles.]

[Starlight: When looking through a starlight scope, you can see in darkness three quarters as far as in daylight and the target acquired by the scope gets two degrees of concealment due to darkness less (for example, someone in near-total darkness will get only one-half and someone in shadows won't get any concealment). The starlight scope doesn't give any benefit in total darkness, however. Seeing a bright flash (like that of a flash-bang grenade) through a starlight scope gives a -2 penalty to the Fortitude save made to avoid being blinded.]

[Thermographic: When looking through a thermographic scope, you have infrared vision and are able to see any sources of heat within your line of sight regardless of the level of darkness, smoke, fog or foliage; the scope doesn't help you in seeing cold objects or hot targets concealed by cold objects. A hot target acquired by the scope will lose any concealment due to darkness, smoke, fog or foliage. Note that the smoke generated by smoke grenades and other such equipment is "hot" and will thus block infrared vision.]

Sound Suppressor

A sound suppressor fits on the end of a firearm, capturing the expanding gases traveling at supersonic speed during gunfire and negating the noise of the muzzle bang. It is especially effective when combined with subsonic rounds. Suppressors are not common for automatic weapons, since autofire quickly wears them out.

[Suppressors are available for assault rifles, autoloaders, machine pistols, sniper rifles and submachine guns. A suppressor will normally fit on all weapons of the same template. Attaching or removing a suppressor takes a move action. To detect the use of a suppressed firearm, someone has to make a Listen check with DC 15; this is increased to 20 if subsonic bullets are used. A suppressor on an automatic weapons will be irrevocably damaged after firing a total of 100 rounds in autofire or burst fire.]

Tripod

A tripod is a great mount used for receiving heavy weap-

ons, like heavy machine guns. Never designed to be truly portable, tripods are commonly used in fixed gun emplacements and provide unparalleled stability to any weapon mounted on them.

[Tripods are available for grenade machine guns, medium and heavy machine guns, portable and point-defense gatling guns, gatling cannons and heavy pulse lasers. Each tripod will only fit weapons belonging to a specific template. Deploying a tripod and mounting a weapon on it takes a full-round action; removing the weapon and picking up the tripod is also a full-round action. A weapon placed on a tripod must be fired from a sitting or kneeling position. A tripod will reduce recoil penalties by 6.]

Tactical Flashlight

This is a small flashlight that mounts on most firearms and provides illumination in dark environments. Its major problem is that the enemy can spot you as well. This problem is partially addressed by an infrared version that provides illumination visible only to infrared vision (thermographic scope, goggles etc).

[A tactical flashlight can be mounted on top or under the barrel of any Small or larger firearm and works as a standard flashlight. In combat situations, you must take a move action to turn it on or off. The infrared flashlight provides illumination only if you have equipment or implants giving you infrared vision and will only be seen by those with infrared vision as well. It will instantly activate any heat scanner its beam falls on.]

ROCKET TARGETING SYSTEMS

Modern targeting systems increase the accuracy, range and effectiveness of rocket launchers and the ammunition they carry by multitudes, enabling surgical strikes from a great distance. There are many different targeting systems; this diversity is made necessary by the fact that there isn't yet a targeting system that will perform at peak efficiency against any kind of target or under every possible condition.

[To make use of a targeting system, both the rocket launcher and the rocket fired must contain equipment necessary for the system's functionality. This equipment has a different Purchase DC for the launcher and the individual rockets. Some systems may require additional equipment, detailed in their descriptions. Firing a guided rocket means in most cases that you first have to acquire a target, something which takes an attack action. A targeting system will typically negate any concealment due to darkness, fog, smoke or foliage.]

Assisted Radar Tracking

This system resembles radar tracking, but the rocket doesn't have a radar of its own, instead receiving its targeting information from another nearby friendly radar. This system is much less expensive than radar tracking and allows the use of a more powerful radar, but is rendered useless if the targeting radar is destroyed or simply too far away.

[This system works exactly like radar tracking, but the target is detected by an independent radar that must lie within 30 miles of the launcher.]

Infrared Tracking

Rockets with an infrared tracking system are heat-seeking, that is they detect emanations of heat and change their course accordingly to hit their source. This kind of targeting system is most commonly used in surface-to-air or air-to-air missiles, since airborne targets have a clearer heat signature, especially if the missile can lock on a jet's exhaust. They're much less effective against surface targets, since the ground often masks

their heat signature. [A rocket with an infrared tracking system has a range increment of 2,000 ft (use this instead of the launcher's increment) and provides a +6 fire control bonus to the attack roll against airborne targets. Against ground targets, the range increment drops to 1,000 ft and the fire control bonus to +2. An infrared tracking system can only acquire targets radiating heat, mainly vehicles on the move (with "hot" engines). Although people are heat sources theoretically, they radiate too little heat to be tracked by this system. The "hot" smoke generated by smoke grenades or smoke generators will provide effective concealment against infrared tracking rockets.]

Laser Designator

A laser designator uses a low-power laser beam not causing any harm to "paint" a target with laser radiation in order to be tracked by a rocket with a laser tracking system.

[Laser designators require the personal firearms proficiency feat and have a 200 ft range increment. They are Medium-sized and are considered semi-automatic ranged weapons. They can't be used in rain or smoke.]

Laser Tracking

This system uses a sensor to detect the laser radiation bounced off the target by a laser designator to guide to rocket to it. The person using the laser designator need not be the one operating the launcher, and indeed he usually isn't, nor must he be near to the launcher; in most cases an observer in a forward position uses the designator while the launcher fires the rocket from a safe distance away. This tracking system is best suited for surface missiles, since it's almost impossible to hold the designator trained on a fast-moving airborne target.

[This system requires a laser designator. The person operating the designator must take an attack action and make a ranged attack roll to "paint" the target with the laser radiation. This attack roll is penalized by -1 per 50 speed the target has. The person operating the launcher

simply takes an attack action to launch the rocket. A rocket guided by laser tracking attack with the attack bonus the designator's operator has for the laser designator plus a +5 fire control bonus, without being penalized for range.]

Microwave Designator

A microwave designator "paints" a target with harmless microwave radiation in order to be tracked by a rocket with a microwave tracking system.

[Microwave designators require the personal firearms proficiency feat and have a 200 ft range increment. They are Medium-sized and are considered semi-automatic ranged weapons.]

Microwave Tracking

This system uses a sensor to detect the microwave radiation bounced off the target by a microwave designator to guide to rocket to it. The person using the microwave designator need not be the one operating the launcher, and indeed he usually isn't, nor must he be near to the launcher; in most cases an observer in a forward position uses the designator while the launcher fires the rocket from a safe distance away. This tracking system is best suited for surface missiles, since it's almost impossible to hold the designator trained on a fast-moving airborne target.

[This system requires a microwave designator. The person operating the designator must take an attack action and make a ranged attack roll to "paint" the target with the laser radiation. This attack roll is penalized by -1 per 50 speed the target has. The person operating the launcher simply takes an attack action to launch the rocket. A rocket guided by microwave tracking attack with the attack bonus the designator's operator has for the laser designator plus a +5 fire control bonus, without

being penalized for range. Chaff are effective for providing concealment against a rocket with microwave tracking.]

Radar Radiation Tracking

This tracking system locks on an active radar used by an enemy vehicle or base. Missiles with such targeting systems have been designed to destroy enemy radar stations or to suppress the use of radars by their mere presence, "convincing" the enemy to turn them off instead of risking a hit by one of these missiles.

[The launcher must be within the enemy radar's effective range. A rocket with such a targeting system has a 10,000 ft range increment (use this instead of the launcher's increment) and receives a +8 fire control bonus to the attack roll. Only active, operating radar sources can be tracked.]

Radar Tracking

This system uses a small radar device installed on the rocket to track the target. It is an all-round effective system, but rather expensive and susceptible to electronic countermeasures.

[A rocket with this system has either an air-search or surface-search radar (depending on its role) of grade 1 to grade 3 at best. To fire such a rocket, the radar must first detect the target (rules for radars are found in the Mach Five section). If the target is successfully detected by the radar, the rocket will have a 3,000 ft range increment for airborne targets (use this instead of the launcher's increment) or a 1,500 ft range increment for surface targets. In both cases, it receives a +5 fire control bonus to the attack roll.]

Semi-automatic Tracking

Perhaps the simplest kind of targeting system available

Targeting System	Purchase DC	Restriction
Semi-automatic tracking	18 (launcher), 20 (rocket)	Mil
Infrared tracking	18 (launcher), 25 (rocket)	Mil
Assisted radar tracking	18 (launcher), 20 (rocket)	Mil
Laser tracking	18 (launcher), 25 (rocket)	Mil
Microwave tracking	18 (launcher), 25 (rocket)	Mil
Laser designator	12	Mil
Radar tracking, grade 1	18 (launcher), 28 (rocket)	Mil
Radar tracking, grade 2	18 (launcher), 30 (rocket)	Mil
Radar tracking, grade 3	18 (launcher), 32 (rocket)	Mil
Radar radiation tracking	18 (launcher), 25 (rocket)	Mil
Microwave designator	14	Mil

for rockets, semi-automatic tracking is nevertheless very efficient in many cases and preferred in many anti-tank guided missiles. As long as the firer keeps the target inside the launcher's sighting device, the rocket fired will unerringly strike him; any corrections necessary are made on flight. This system is almost always used for ground-based missiles; airborne targets are usually too fast for someone to manage to retain inside the launcher's sights for the whole duration of the missile's flight.

[Firing a rocket with semi-automatic tracking takes an

attack action without the user having to acquire the target first. A rocket fired using this targeting system uses twice the range increment of the launcher to determine any range penalties and receives a +4 fire control bonus to the attack roll. However, for every 50 speed the target has, the attack roll receives a -1 penalty. Moreover, this targeting system doesn't negate any concealment due to darkness, fog, smoke or foliage, unless the launcher or the user has some special sighting device (starlight or thermographic).]

BATTLE SOFTWARE

Computers have revolutionized everything and the battlefield is no exception. For long army commanders have used complex programs running on supercomputers to test (at least in theory) various combat models, but now software is also available for the lowly soldier to augment his effectiveness in the battlefield. Most of the later software is designed to run on small, portable computers and nanocomputers a soldier can carry without too much a burden.

[This section uses some rules and statistics which are fully explained in the Silicon Wizardry section.]

CombaTech Burst Control Mk1 and Mk2

Burst Control uses a nanocomputer along with a cyberarm to efficiently control the recoil of a weapon during autofire. While the user fires an automatic weapon, the program measures the recoil stresses produced by the gun and makes fine adjustments to the cyberarm's position to compensate and keep the weapon steady.

[Burst Control requires a nanocomputer and a cyberarm. Version Mk1 reduces recoil penalties by 1, but only on autofire or burst fire mode and only for one-handed firearms. Version Mk2 also works for two-handed firearms (longarms) but requires two cyberarms.]

CombaTech TacOps

TacOps (Tactical Operations) is a program designed with the squad leader in mind. Optimised to run on portable computers and nanocomputers, it provides a small-unit tactician with everything he might need: detailed maps of the battlefield area, weather reports, troop deployment, all with the press of a button!

[TacOps comes in grades. An active TacOps while provide a software bonus equal to its grade to all Knowledge (tactics) checks made during a battle.]

Phalanxware Cybertargeting Mk1 and Mk2

Cybertargeting makes creative use of cybernetic implants to provide the most effective small arms targeting system known today. The program runs on a nanocomputer and it also needs a cyberarm and a weapon equipped with an optical link. Cybertargeting automates the aiming and firing process almost completely. The user only needs to give the nanocomputer a mental command to fire on a target in his field of vision. Cybertargeting than assumes control of the cyberarm and moves the weapon to bear on the target. The data received from the weapon's optical link is used to make the final adjustments in the arm and wrist position. As a safeguard, the user must press the trigger himself; the program doesn't do it for him. The end result is a lightning-quick, almost perfect firing motion.

[Cybertargeting needs a nanocomputer and a cyberarm to work. While active, it provides a +4 fire control bonus to attack rolls with weapons it can handle. Version Mk1 can only control sidearms (guns wielded with one hand), as it's not able to perform the complex calculations needed to move and calibrate two arms. Version Mk2 is able to control longarms (weapons requiring both hands), but also needs two cyberarms. Both programs cannot fire weapons from a prone position or weapons that are placed on a bipod or tripod.]

Phalanxware IFF

IFF stands for Interrogate Friend or Foe and is great

Program	Programming DC	Speed Slots	Active Slots	Storage Slots	Purchase DC	Restriction
CombaTech Burst Control Mk1	25	3	3	6	22	Res
CombaTech Burst Control Mk2	25	5	5	8	24	Res
CombaTech TacOps, grade 1	20	1	1	2	19	Res
CombaTech TacOps, grade 2	22	1	2	3	21	Res
CombaTech TacOps, grade 3	24	2	3	4	23	Res
Phalanxware Cybertargeting Mk1	25	4	3	6	25	Res
Phalanxware Cybertargeting Mk2	28	6	6	10	27	Res
Phalanxware IFF	25	4	3	6	22	Res

companion for any optical targeting system. To use it, the character needs to have an installed nanocomputer along with a datajack, an optijack or HUD goggles and of course a weapon equipped with an optical link. What IFF basically does is that it uses the nanocomputer to detect the user's autonomic responses as he fires and determines who he considers a friend and who a foe. No effort on the user's part is required; the program does all the work automatically without distracting him. IFF uses the information it receives to halt the weapon from firing if the optical link is aimed on a friendly target. This means that the user never has to worry about accidentally shooting an ally, something very useful in frantic, close quarters firefights. [IFF needs a nanocomputer and works in conjunction with any weapon equipped with an optical targeting module. The use of IFF negates the -4 penalty for shooting at a target who is engaged in melee combat with a friend. Moreover, if the user performs autofire with an automatic weapon no one of his "friends" is going to be hit, since the program halts the weapon from firing for as long as it is needed to bypass a friendly target.]

SECTION TWO

BEYOND FLESH

BIOTECHNOLOGY

Cyberware

Cyberware is a slang term referring to electronic implants installed in the human body and merged with organic tissue to replace lost functions (like an artificial limb in place of a severed one), enhance its capabilities (like muscle replacements to increase physical strength) or provide new abilities (like infrared vision). These implants are specially designed to merge with the host's tissues and interact with them. In short, they become extensions of the host's body. The main advantage of cyberware is that they can be very powerful and versatile, bringing the perfection of machines to the fragile human body. Unfortunately, they are foreign bodies and take a heavy toll on the body's health and immune system.

Installation

Installing an implant requires extensive surgery and post-surgical treatment with immunity suppression medication so that the body doesn't reject the implant. To reduce the cost of an implant, someone may use a friend of his to perform the surgical operation provided he has the proper skills and access to a medical facility. After the operation, the recipient of the implant will typically be incapacitated for a short period during which he is treated with the immunity suppression drugs; he must remain in a relatively sterile environment during this time as even a common flu may be catastrophic for his health. [The cost for surgery and drug treatment is included in an implant's Purchase DC. A friend of the character can perform the operation himself if he has access to the proper equipment; this will decrease the Purchase DC by 4, but the person performing the operation must have the Surgery feat and succeed in a Treat Injury check with a DC depending on the type of the implant being installed. Implant surgery takes d3 hours per point of Tolerance (or fraction thereof) the implant has.]

[After the operation ends, the recipient of the implant is fatigued for 2 days and has to begin receive the immunity suppression drugs immediately. Treatment with this medication lasts for one week per point of Tolerance (or fraction thereof) the implant has. If this medication is

interrupted before the treatment concludes, the implant is rejected by the body and the character loses 1 hit point per day until the implant is removed (these hit points cannot be recovered if the rejected implant remains in the body). While under treatment, a character is especially vulnerable to disease: he suffers a -10 penalty to any Fortitude save made against a disease and disease damage is doubled.]

Specialized Implants

Although implants provide several benefits, they cause a deterioration in general health and they're electronic devices, meaning that they are vulnerable to the attacks of pulsers and similar weapons. Indeed, someone with a pulser can easily disable an implanted opponent by knocking out of order a cyberlimb, cybereye or nanocomputer. To face these inherent disadvantages, two new types of implants have been developed, although they are still too expensive to be commonly available: biocompatible and magshielded implants.

Biocompatible implants feature an exterior layer of synthetic bone and pure titanium. These materials have been known to produce a minimum level of inflammation and rejection, so they dramatically decrease an implant's deteriorating influence on health.

Magshielded implants have their electronic components encased in protective shells made from heavy materials, thus shielding them from electromagnetic attacks.

[The biocompatible and magshielded option can be added to any implant prior to its installation (they can't be added after the implant is installed). Both of them may be added to an implant, if so desired.]

[A biocompatible implant has its Purchase DC increased by 4, but only has half of the normal Tolerance (keep any resulting fractions without rounding them up or down).]

[A magshielded implant has its Purchase DC increased by 4, but is rendered immune to the attack of pulsers, pulse grenades and any other weapon with the magnetic damage type.]

Bioware

Bioware is a slang term for genetic modifications. They generally do the same job with cyberware, improving body functions or adding new ones. However, whereas cyberware are based on artificial devices merging with living tissue, bioware are made of living tissue themselves, produced by alterations in the subject's genetic code. This makes bioware less potent, but also gives them distinct advantages like subtlety. Also, being organic, they don't face any rejection problems and take a lighter toll on the body.

Installation

Bioware do not require expensive electronic equipment to be surgically installed and do not incapacitate the recipient with post-surgical treatment. They are installed simply by altering the recipient's genetic code in a few key parts of his body. This requires the recipient's DNA to be analyzed and then a tailored retrovirus to be constructed. The recipient is then infected with the retrovirus, which brings about the necessary alterations in his genetic code, and all he has to do is wait until the changes made in his DNA are expressed. Because changes are made in the recipient's mundane body cells rather than his genetic cells, they are not hereditary.

[The cost for the DNA analysis of the recipient and the construction of a tailored retrovirus is included in the Purchase DC. Someone with the proper knowledge and access to an equipped biolab could do these things by himself and reduce the Purchase DC of a bioware by 5 points. This work requires a successful Craft (pharmaceutical) check using the Construction DC for the bioware and takes 3 days per 0.25 of Tolerance the bioware has. A retrovirus will only work on the character it was constructed for.]

[Once the character is infected by the retrovirus, the bioware will become operational after one week per 0.25 points of Tolerance it has. During this waiting period, the recipient doesn't suffer any adverse effects.]

Tolerance

Cybernetic implants take their toll on a character's health since they're foreign bodies which face rejection by the immune system. Bioware on the other hand are less invasive and rely on organic principles, so they don't cause as

many problems. They do, however, bring about changes in the recipient's DNA, a vast portion of which is still little understood, and these changes may have unforeseen long-term effects. Thus, both cyberware and bioware cause a deterioration in someone's health. This is the only obstacle that stops some people from stacking cyberware upon cyberware and bioware upon bioware. In some cases, people with extensive body modifications have died an ugly death as their immune system suddenly went haywire, killing them within mere hours from severe allergic shock or multiple rampant infections. Others have died slowly, as numerous tumors consumed their bodies from within.

[Each cyberware and bioware has a Tolerance level. Tolerance is a measure of how invasive a modification is and how much it affects the health and bodily functions of the recipient.]

[No man can have a total Tolerance (the sum of all his modifications' individual levels) equal to or greater than his permanent Constitution score. If this ever happens, he dies a gruesome and spectacular death as his body turns against itself. Details are left to the Gamemaster, but there's no salvation from this fate. Note that because Tolerance is compared to permanent Constitution, a character that has suffered temporary Constitution damage from poison or disease will not have any problems with his modifications. However, a character that suffers permanent Constitution loss from a particularly toxic poison or disease may quickly find himself in a desperate situation.]

[Even if someone's total Tolerance doesn't exceed the threshold placed by his Constitution, he will certainly face health problems, especially when his body is defending against threats like disease, poison, radiation, toxic waste etc. Tolerance decreases the character's Constitution (to a minimum of 1) when making Fortitude saves against the aforementioned health threats. For example, let's take a character with Constitution 16 who is infected with a deadly virus. His Constitution score would have given him a +3 bonus to the fortitude save against the disease, but he happens to have extensive modifications reaching a total of 12 Tolerance points. This means that his Constitution is decreased to an effective score of 4, thereby inflicting a -3 penalty to his saving throw.]

[When determining total Tolerance for a character, disregard any fractions without rounding them up or down. For example, 3 implants each having 0.25 Tolerance

do not give any total Tolerance, by 4 such implants produce Tolerance l.]

CYBERWARE

Acoustic Jack

This implant connects directly to the user's acoustic nerve and can feed sound to the brain, originating from other implants or external sources (via datajack). In essence, it is a personal audio device.

[An acoustic jack requires one control slot from a nanocomputer. Receiving sound from an external source also requires a datajack.]

Adrenal Chip

This small implant connects to the adrenal glands and is controlled by a nanocomputer. Through the nanocomputer, the user can activate the chip to trigger increased production of adrenaline, increasing reflexes, reaction speed and physical strength. This overall boost lasts for a limited amount of time, because the adrenaline is quickly metabolized and afterwards the user feels drained of energy. This feeling of exhaustion only worsens with each activation of the chip, so most users refrain from using it occasionally, saving it for special occasions.

[An adrenal chip requires a nanocomputer. Activating the chip is a free action and will provide a +2 adrenal bonus to Strength, initiative, Defense and Reflex saves. These benefits last for one minute and afterwards the user must make a Fortitude save (DC 12) or become fatigued. The DC of the saving throw is increased by one point each time the chip is used, to a maximum of DC 20. The DC resets back to 12 after the character has a full 8-hour rest.]

Air Tank

This small reservoir connects to the lungs and stores highly compressed air for use in emergencies. A chemical detector in the pulmonary vein measures the concentration of oxygen in the blood and releases air from the tank into the lungs when it drops low. The tank automatically replenishes its supply by drawing air from within the lungs when the user breaths normally.

[An air tank allows a character to breath for up to 15 minutes in asphyxiating conditions. When it is not in use and there is available air, the tank will regain one minute worth of air for every 10 minutes passing.]

Bioscanner

A small but very useful implant, the bioscanner monitors several body functions, like heart rate, blood pressure, blood gases, white blood cells etc, and presents the information to the user through an optijack.

[A bioscanner requires an optijack. It confers a +2 circumstance bonus to any checks made to diagnose a health condition afflicting the user. It can also be used to program a lifesaver with automatic responses.]

Body Plating

Body plating consists of subdermal layers of impact-resistant fibers which cover most of the recipient's torso. Although not as protective as most armors, the plating is completely invisible and may be combined with armor for maximum protection. The heaviest types of plating cannot be supported by the body on their own and need to be mounted on an endoskeleton.

[Body plating is available in several grades, each grade providing its own resistance levels. The resistance of body plating is fully cumulative with that of an armor. Grades 4-6 require an endoskeleton.]

Grade	Resistance
1	Ballistic 1
2	Ballistic 2
3	Ballistic 2, Slashing 1, Piercing 1
4	Ballistic 2, Slashing 2, Piercing 2
5	Ballistic 3, Slashing 2, Piercing 2
6	Ballistic 3, Slashing 3, Piercing 3

Concealed Compartment

Technically, this isn't an implant but a hollow space designed into a cyberlimb to store small items.

[A concealed compartment can store one Tiny, two Diminutive or four Fine objects.]

Concealed Firearm

This is actually a heavily modified firearm concealed inside a cyberlimb. The weapon is fired through a port in the

palm, which closes when not needed, and its action is controlled by a nanocomputer. There are several choices of weapons that can be installed in a cyberarm. Although the weapon cannot be effectively aimed and reloading it is a difficult and time-consuming procedure, it compensates with its incredible concealability.

[A concealed firearm needs a cyberarm and a nanocomputer. The user can choose to install one of the following weapons: light autoloader, medium autoloader, heavy autoloader, light machine pistol, heavy machine pistol or a needler handgun (use the templates for these weapons). A concealed weapon cannot accept add-ons. Its range increment is reduced to 15 ft, but only for purpose of determining range penalties. Reloading a concealed weapon takes 3 rounds.]

Control Interface

This implant allows the user to control a properly configured vehicle (one that has an installed remote control platform) with his thought through a nanocomputer, as well as any accessories or weapons rigged to the platform. It's very popular among pilots and race drivers since control via thought is always faster and smoother than manual control.

[A control interface requires one control slot from a nanocomputer; communication with the remote control platform is done through a datajack. Control interfaces come in several grades. Each grade will give a +2 biotech bonus to any rolls made to control the vehicle or perform a maneuver with it, as well as a +1 biotech bonus to attack rolls with any weapons mounted on the vehicle that are also rigged to the remote control platform. The interface cannot be used to control a vehicle without a remote control platform or one for which the user doesn't have the access codes (unless he manages to bypass the security protocols).]

Cranial Bomb

A rather radical means of ensuring someone's loyalty, a cranial bomb is a small explosive charge installed deep inside the cranial cavity. It can be remotely detonated and its explosive power is just enough to turn most of the brain into a pulp, instantly killing the victim.

[Detonating a cranial bomb causes instant death without a saving throw. Removing a bomb safely first requires gaining access to it (a surgical operation using the same DC used to implant the bomb) and then disabling it using the Demolitions skill.]

Cyberear

This implant is an artificial ear, made from flexible plastics and concealed by synthetic skin, that replaces the user's natural one. It is intended to restore hearing in people who have lost an ear to disease or injury and can receive upgrades like directional or parabolic hearing.

[A cyberear requires an acoustic jack and a control slot from a nanocomputer. A second cyberear doesn't require an additional control slot. If the user has one cyberear installed, the tolerance of the following cyberware is halved (because half of their mechanism is installed in the cyberear and only the other half comes in contact with living tissue): directional hearing, parabolic hearing, sonic compensator. If he has two cyberears installed, the tolerance of the above cyberware does not apply.]

Cybereye

This implant is an artificial eye to replace the user's natural one. It connects to an optijack and is controlled by a nanocomputer. Commonly used by those who have lost an eye to disease or injury, the cybereye can accept many upgrades like night or thermographic vision to improve its functionality.

[A cybereye requires an optijack and a control slot from a nanocomputer. Because cybereyes are controlled in unison, a second cybereye doesn't need an additional control slot. If the user has one cybereye installed, the tolerance of the following cyberware is halved (because half of their mechanism is installed in the cybereye and only the other half comes in contact with living tissue): flare compensator, magscanner, microscopic vision, night vision, sonic vision, thermographic vision, telescopic vision. If he has two cybereyes installed, the tolerance of the above cyberware does not apply.]

Cyberlimb

Cyberlimbs (cyberarms and cyberlegs) use hydraulic servomotors to greatly enhance the user's physical strength and can accept a variety of other accessories, like concealed compartments and firearms. They are built from ceramics, high-grade plastics and light alloys and covered by synthetic skin which resembles natural one almost perfectly. The heaviest cyberlimbs cannot be supported by the natural skeleton and need to be mounted on an endoskeleton.

[A cyberlimb requires a control slot from a nanocom-

puter. Cyberlimbs come in several grades. Each grade has an effective Strength score of $18 + 2$ per grade that is only used for tasks making exclusive use of it (eg wielding an one-handed melee weapon). For tasks involving the cyberlimb, but not exclusively (eg wielding a two-handed melee weapon with a cyberarm and a natural arm), the Strength score used is the average of the cyberlimb's and the natural one. For tasks not involving the cyberlimb in any way, the user doesn't gain any benefit from its Strength. Grades 4-6 require an endoskeleton.]

Datajack

A datajack connects a nanocomputer and the implants it controls to the outside world. A nanocomputer without a datajack is an isolated system useful only for controlling other implants. With a datajack a nanocomputer can send and receive data, and control external devices.

The basic datajack has one cable port, usually located somewhere on the head, concealed by hair and synthetic skin (although it's very obvious while it's in use). It is able to interact and communicate with one device through a cable. To improve a datajack's functionality, the user can add more ports, either cable ones or the following:

- *Infrared port: An infrared port can communicate remotely with any other device having an infrared port. Its range is rather limited, but it allows some subtlety to the user, especially when working around people who might be repulsed by the sight of a cable running out of his head.*
- *Remote port: A remote port uses a small but powerful radio to receive from and transmit data to a device also equipped with a transmitter/receiver (like another remote port). It has great range, but the data transmissions may be intercepted or disrupted by countermeasures.*
- *Body port: This revolutionary port uses currents of bioelectricity running through the user's body to communicate with another body port in contact. It is considered the ultimate in secure information exchange; transmission of data from one nanocomputer to another may simply take the form of a handshake between two people with body ports. The body port is a very specialized item, since it can't be used to communicate with any device other than a body port.*
- *Induction port: The induction port takes the form*

of a magnetic induction device hidden in the user's palm, just under the skin. Mostly considered an espionage device, the induction port is able to read any data passing through a cable the user holds in his hands, as well as transmit data through it.

[A datajack is required for any kind of communication or interaction between a nanocomputer (or any implant it controls) and an external device. Communication is done through a port, so the number of available ports determines the number of devices a nanocomputer is able to simultaneously communicate with. Each port comes in grades, with its grade determining the rate of data exchange it can achieve (in storage memory slots per round). The basic datajack comes with a grade 1 cable port. Ports available for installation include:]

[Cable ports: A cable port requires a cable plugged to the external device.]

[Infrared ports: An infrared port can communicate with another infrared port up to 45 ft away without any obstacles in the way.]

[Remote ports: A remote port can communicate with any device having a remote port and has an effective range of 20 miles.]

[Body ports: A body port can only communicate with another body port it comes in contact with.]

[Induction ports: To use an induction port, the user must hold a cable in his palm. He's then able to read and record any data passing through the cable as well as transmit data through the cable. Induction ports do not have a grade, since their rate of data exchange is only limited by the cable they make use of. They can only interact with cable ports.]

Port	Data Exchange Rate
Cable/Infrared/Remote. grade 1	3 slots per round
Cable/Infrared/Remote. grade 2	6 slots per round
Cable/Infrared/Remote. grade 3	9 slots per round
Body, grade 1	1 slot per round
Body, grade 2	2 slots per round
Body, grade 3	3 slots per round
Induction	Depends on the cable used

Directional Hearing

This implant pinpoints the source of any sound reaching

the user's ears.

[Directional hearing requires an acoustic jack. The user is able to determine the direction of any sound he can hear.]

Endoskeleton

Primarily used to mount other implants, such as cyberlimbs or body plating, an endoskeleton also offers considerable protection since it adds titanium alloy reinforcement to most bones in the recipient's body, particularly to vital areas like the chest and skull.

[Endoskeletons come in several grades. Each grade offers +1 hit points per level of the character; these hit points are permanent and if lost they are healed as normal hit points. For example, a grade 1 endoskeleton will offer +1 hit point per level, so a 7th-level character will have +7 hit points. This increase is applied whenever the character advances in level, even after the endoskeleton is installed, so that when the above mentioned character advances to 8th level he will gain another extra hit point.]

Filters

Filters are small lung implants filtering incoming air. They provide adequate protection against dust particles, irritants, toxic gases and airborne diseases, although not as good as gas masks. Still, they are invisible and constantly functioning.

[Filters come in grades. Each grade will provide a +2 biotech bonus to Fortitude saves against inhaled poisons and airborne diseases. Filters are useless against contact gases.]

Flare Compensator

This implant monitors the level of light reaching the user's retina through a secondary lid and turns sudden changes in intensity into gradual ones, preventing temporary or permanent eye damage.

[A flare compensator provides flare suppression.]

GPS Pod

A GPS pod uses the Global Positioning System's satellite network to calculate the user's position and coordinates and display the data superimposed on a digital map also received by the network.

[A GPS pod requires a nanocomputer and an optijack. It grants a +4 equipment bonus on Navigate checks but the user must be outdoors to receive a signal from the satel-

lite.].]

Hyperactivity

This extensive modification over the central and autonomous nervous system rewires entire nervous paths and uses the optic fiber infrastructure of synaptic boost cyberware to provide a burst of activity. A person under the effects of hyperactivity becomes impossibly fast, in many occasions faster than the eye. However, the hyperactivity state takes a heavy toll on the body: neurotransmitters are exhausted at an alarming rate, the physical energy required to sustain this state is tremendous and the user may suffer severe harm after spending too much time in this state.

[Hyperactivity requires a nanocomputer and any grade of synaptic boost, although its effects will be better with higher grades. It can be activated or deactivated as a free action. While activated, hyperactivity works in two ways. Firstly, it doubles the biotech bonus to initiative provided by the synaptic boost. Secondly, it increases all of the user's modes of movement by 30 ft (to a maximum of double the user's normal speed) and allows him to make one extra attack with any weapon he's holding (using his full attack bonus) when making a full attack action. Each round the user spends in hyperactivity state, he loses one hit point because of the tremendous toll on his body. After hyperactivity is turned off, the user needs to make a Fortitude save (DC 15). On a failure, the user is exhausted and can't use hyperactivity again until he recovers from exhaustion. If the saving throw is failed by 5 or more points (or is a natural 1), the user also suffers synapse collapse and permanently loses d4 Intelligence and Wisdom points. Every time hyperactivity is activated, the DC for the Fortitude save goes up by one point, to a maximum of DC 25. The DC is reset back to 15 after the user has a full 8-hour rest.]

Lifesaver

A lifesaver is a small implant capable of holding up to ten doses of various substances (most users load it with emergency medication) and administering them to the body when they're needed. The implant is installed subdermally and substances are loaded into it via a small tube exiting at the left arm. Medication is administered by use of a nanocomputer, either through conscious will or, if combined with a bioscanner, when certain pre-programmed conditions are met (like when the user falls unconscious or his heart stops beating).]

[A lifesaver requires a nanocomputer. It can hold up to 10 doses of drugs; loading a substance into the lifesaver is a full-round action. Activating a lifesaver is a free action. If a bioscanner is available, the user can add as many programmed responses he wants, but each response must be based on a health factor the bioscanner is able to detect (common response triggers include the introduction of poison into the body, dropping unconscious or dying, falling under 50% of maximum hit points etc).]

Magscanner

A magscanner connects to an optijack and uses advanced magnetic resonance technology to examine what lies beyond solid obstacles, like walls and doors. This requires proximity to the obstacle and the scanner isn't capable of seeing through very thick or metallic objects.

[A magscanner requires an optijack. The scanner enables the user to see through a non-metallic object up to 1 ft thick, if the user is within 5 ft of it. The scanner negates any concealment due to foliage. It doesn't enhance the user's optical capabilities, so he will still not be able to see through darkness. When using the scanner to see through an obstacle, the user can't use infrared or starlight vision.]

Microscopic Vision

This implant uses a system of optical lenses to provide the user with the magnifying capabilities of a microscope.

[Microscopic vision can magnify up to 1,000 times any object within 15 cm of the eye. It requires a nanocomputer to control zoom in and out.]

Mnemonic Jack

This complex device connects to a nanocomputer and uses its links to the user's mnemonic centers in order to act as an interface between the user's memory and specialized data chips known as mnemochips. Mnemochips are essentially high-density storage devices capable of storing an incredible amount of data in "memory format". When the user connects a mnemochip to his datajack, he can access the data it contains through a mnemonic jack as if it was in his memory.

Mnemochips have many uses. People which suffer from memory loss may find some relief in the use of mnemochips, although a backup of an adult's entire memory takes up several chips. The most obvious and mar-

keted use of mnemochips is to provide skills and knowledge the user doesn't have. Someone who can't add two and two can plug in an algebra mnemochip and suddenly be able to solve advanced equations. However, a mnemochip can only hold that much memory and how this information is interpreted and utilized depends on the user's mental facilities.

[A mnemonic jack requires a nanocomputer and a datajack to function. Mnemonic jacks come in five grades; a jack's grade determines the amount of data it can process and make available to the user as memories. Mnemochips also come in five grades; to use a chip a jack must have equal or higher grade. A mnemochip is used by connecting it to the cable port of a datajack. It is a Tiny item.]

[Mnemochips are either blank or full (skill). Blank mnemochips are used to record one's memory, as a form of backup. The equipment for this is horribly expensive (Purchase DC 15), but there are companies that provide this as a service, costing 20 + the number of years worth of memories you want to backup (the cost for the mnemochip is included). The process takes one hour per year of memories to be stored. A blank mnemochip can store one year worth of memories per grade.]

[Skill mnemochips contain ready-to-use knowledge. When connected, they will give the benefit of 2 ranks per grade in a specific skill. These ranks are not added to the user's current ranks; he can use either his own ranks or the chip's, but not both. The ranks provided by a mnemochip are not limited by the user's character level, but can't be used to meet the prerequisites for a feat or advanced class. Mnemochips are available for the following skills: Computer Use, Craft (chemical, electronic, mechanical, pharmaceutical, structural), Decipher Script, Demolitions, Disable Device, Forgery, Knowledge (behavioral sciences, business, civics, current events, earth and life sciences, history, physical sciences, popular culture, tactics, technology, theology and philosophy), Navigate, Profession (anything theoretical), Read/Write Language, Speak Language, Treat Injury.]

[A mnemonic jack can accept more than one chips simultaneously (if the user's datajack has enough cable ports), as long as their total grade doesn't exceed the chip's grade.]

Muscle Replacements

These are synthetic muscles made from strong carbon fibers to provide a boost to the user's physical strength.

[Muscle replacements come in several grades. Each grade will give a +1 biotech bonus to the user's Strength.]

Nanocomputer

One of the most basic implants, a nanocomputer's job is to control other implants, although it can also be used for more mundane computer tasks. It is connected to most major brain centers and this enables the user to control it and any equipment connected to it with his thought. The addition of a datajack makes a nanocomputer able to communicate with external peripherals and devices located outside of the user's body. There is a wide variety of nanocomputer models to choose from.

[Nanocomputers are described in the Silicon Wizardry section. Each model will have a number of control slots, which are used to control other implants in the user's body. Some implants may require a control slot, others will merely require the presence of a nanocomputer, while others can function on their own without requiring a nanocomputer to control them.]

Night Vision

This implant functions as a starlight scope, amplifying any ambient light to provide effective lowlight vision. It doesn't provide any benefit in total darkness (as there is no light to amplify), fog or smoke.

[Night vision requires an optijack. It allows the user to see in darkness three quarters as far as in daylight. Any target the user attacks gets two degrees of concealment due to darkness less (for example, someone in near total darkness will get only one-half concealment and someone in shadows won't get any concealment). Night vision will not function in total darkness. Seeing any bright flash (like that of a flash-bang grenade) through night vision inflicts a -2 penalty to the Fortitude save made to avoid being blinded.]

Optijack

An optijack is an implant which connects directly into the optic nerve and can feed images to the brain, as well as video coming through a datajack or info from any other implant. In essence, it is a personal display monitor.

[An optijack requires a control slot from a nanocomputer. Image and data from an external source must come through a datajack.]

Pain Dampener

This implant hijacks the central nervous routes carrying pain signals, reducing any stimulant to a logical amount of discomfort. Although someone with a pain dampener may seem impervious to physical pain, he is not able to realize how much has he been hurt and a critical injury may seem as a flesh wound until it's too late. Fortunately, a pain dampener can be slaved to a nanocomputer and activated or deactivated at will.

[Pain dampeners come in several grades. Each grade will provide the character with 2 points of damage reduction that is only effective against non-lethal damage and cumulative with armor resistance. It will also give a +2 biotech bonus to any Fortitude save made to avoid being stunned by an attack (or lessen its stunning effect). However, a character with a pain dampener should not be informed how many hit point he's lost. The Gamemaster should only inform the player when his character has lost 25%, 50% or 75% of his hit points, but not the exact amount, keeping a secret count.]

[A pain dampener can be activated or deactivated by a nanocomputer as a free action. When the dampener is deactivated after the character has suffered any damage, the pain comes flooding in and the character must make a Fortitude save (DC 12) or be stunned for d4 rounds by the shock.]

Parabolic Hearing

Working like a parabolic mike, this implant connects to an acoustic jack and enables the user to hear sounds originating far away with great detail. Input sound is automatically reduced or amplified to a level enabling comfortable hearing.

[Parabolic hearing requires an acoustic jack. It provides a +5 biotech bonus to Listen checks. The user is also able to hear a normal conversation from up to 1,500 ft away or a whisper from up to 500 ft away (the presence of any solid obstacle between divides these ranges by 4).]

Retractable Claws

This is an efficient surprise weapon, consisting of steel claws that spring up and retreat into the knuckles when not needed. A larger version of retractable claws can be built into a cyberarm.

[Retractable claws come in two versions: light and heavy. Heavy claws need a cyberarm. Both versions are used to

make unarmed attacks. They make the user's unarmed attacks inflict lethal slashing damage, give a damage bonus to unarmed attacks and improve their critical range by one number (or give critical 20 if the user doesn't normally have a critical range for unarmed attacks). Unarmed attacks made with retractable claws are considered armed.]

Version	Unarmed Damage Bonus
Light	+2
Heavy	+4

Retractable Spurs

Spurs are sharp, steel blades concealed within the user's ankles. When extended, they can be used by a martial artist to perform deadly kick attacks. A heavier version of spurs can be built in a cyberleg.

[Retractable spurs come in two versions: light and heavy. Heavy spurs require a cyberleg. Both versions require the Combat Martial Arts feat and are used to make unarmed attacks that deal lethal slashing damage. Spurs give a damage bonus to unarmed attacks and improve their critical range by one number (or give critical 20 if the user's unarmed attacks don't normally have one).]

Version	Unarmed Damage Bonus
Light	+3
Heavy	+5

Sonic Compensator

This useful little implant hijacks the acoustic nerve and blocks any incoming signal strong enough to cause loss of hearing.

[A sonic compensator provides noise suppression.]

Sonic Vision

This cutting-edge implant requires an optijack to work and gives the user a refined, highly detailed form of echolocation. The user can literally see sound, functioning as a high resolution sonar that can pierce darkness and any other kind of visibility obstacles. The echolocation's effective range is unfortunately limited.

[Sonic vision requires an optijack and comes in grades; each grade has an effective range at which sonic vision functions. The user is able to see anything inside this range regardless of darkness, fog or smoke, albeit in

monochrome. Opponents the user attacks lose any concealment due to these factors.]

Grade	Effective Range
1	100 ft
2	200 ft
3	300 ft
4	500 ft
5	1,000 ft

Subdermal Comm Set

The subdermal comm. Set is a nice name for an implanted cell phone that connects to an acoustic jack and has a miniature microphone in the oral cavity. Speaking on a whisper-level is generally enough to send a loud and clear transmission—this gives someone all the privacy he'll ever need. The extended version of this implant adds a broadband radio transmitter/receiver to the basic package. The secure version adds real-time encryption for those handling sensitive information.

[A subdermal comm set requires an acoustic jack and a nanocomputer. The standard version functions as a standard cell phone. The extended version adds a 25-mile range broadband radio. The secure version will add encryption of level 2 to any outgoing communication.]

Synaptic Boost

This implant consists of optic fibers which transfer signals from kinetic centers to muscles blindingly fast, improving quickness and reaction times.

[Synaptic boost comes in several grades. Each grade provides a +2 biotech bonus to the user's initiative check.]

Telescopic Vision

Telescopic vision uses a system of lenses controlled by a nanocomputer to zoom in on anything within the user's line of sight, functioning as a standard scope. It is very popular with snipers and mercenaries.

[Telescopic vision can zoom in on an object up to 24 times. The zooming capability doubles the range increment of any weapon, but only for the purpose of determining range penalties. This increase is not cumulative with that provided by a standard scope. Moreover, telescopic vision reduces the penalty for Spot checks to -1

per 50 ft of distance.]]

Thermographic Vision

Using an infrared sensor and an optijack, this implant provides infrared vision, enabling the user to see objects and persons radiating heat. Thermographic vision is effective in any degree of darkness, fog and smoke and will even penetrate foliage. However, the user can only see heat sources and the "hot" smoke of smoke grenades and similar devices will blind thermographic vision.

[Thermographic vision requires an optijack. It provides infrared vision and allows the user to see any sources of heat within his line of sight regardless of the level of darkness, fog, smoke or foliage. When attacking a hot target, he loses any concealment due to these factors. Thermographic vision doesn't help the user in seeing cold objects or hot targets concealed by cold objects and is blocked by the smoke generated by smoke grenades and other similar equipment.]

Voice Mask

This implant functions pretty much as an external voice

distortion device, making a user's voice unrecognizable. The user can select one of many pre-programmed masks or "play" with the settings to create a mask of his own, although the implant is not accurate enough to imitate someone's voice. The extended version, highly illegal, adds voice recording, analyzing and reconstructing capabilities. This version can be used to record the voice of someone and, after analysis of the voice pattern concludes, imitate it.

[A voice mask requires a nanocomputer. It will make the user's voice unrecognizable. The extended version can be used to imitate the voice of someone else, although you first have to record his voice. The quality of the imitation depends on the length of voice you have recorded for analysis. Ten seconds are usually enough to fool a voice identification system, but fooling live persons having a conversation with you is more difficult because of the wealth of words and expressions used. For each minute of recorded voice available for analysis, other people have a -1 penalty (to a maximum of -4) to any check made to realize the trickery.]

Master Cyberware Table

Implant	Tolerance	Surgery DC	Purchase DC	Restriction
Acoustic jack	1	25	25	--
Adrenal chip	1	22	25	--
Air tank	1	20	24	--
Bioscanner	0.5	20	20	--
Body plating, grade 1-6	0.5+0.5/grade	20	23+grade	--
Concealed compartment	--	--	10	--
Concealed firearm, heavy autoloader	--	--	20	III
Concealed firearm, heavy machine pistol	--	--	25	III
Concealed firearm, light autoloader	--	--	18	III
Concealed firearm, light machine pistol	--	--	25	III
Concealed firearm, medium autoloader	--	--	19	III
Concealed firearm, needler handgun	--	--	19	III
Control interface, grade 1-3	2	25	23+2/grade	--
Cranial bomb	2	25	25	III
Cyberear	1.5	25	25	--
Cybereye	1.5	25	25	--
Cyberlimb, grade 1-6	3	25	26+2/grade	--
Datajack, additional body port, grade 1-3	0.25	20	22+2/grade	--
Datajack, additional cable port, grade 1-3	0.25	20	13+2/grade	--
Datajack, additional infrared port, grade 1-3	0.25	20	15+2/grade	--
Datajack, additional remote port, grade 1-3	0.25	20	16+2/grade	--
Datajack, basic	1	25	23	--
Directional hearing	0.5	20	23	--
Endoskeleton, grade 1-3	2+1/grade	25	27+3/grade	--
Filters, grade 1-3	1	20	22+grade	--
Flare compensator	0.5	20	22	--
GPS pod	0.5	20	20	--
Hyperactivity	2	25	30	--
Lifesaver	0.5	20	22	--
Magscanner	0.5	20	29	Res
Microscopic vision	0.5	20	23	--
Mnemochip, blank, grade 1-5	--	--	17+grade	--
Mnemochip, skill, grade 1-5	--	--	20+2/grade	--
Mnemonic jack, grade 1-5	2	25	26+2/grade	--
Muscle replacements, grade 1-5	0.5+0.5/grade	20	23+2/grade	--
Nanocomputer	2	25	?	--
Night vision	0.5	20	23	--
Optijack	1	25	25	--
Pain dampener, grade 1-3	0.5+0.5/grade	25	24+2/grade	--
Parabolic hearing	0.5	22	24	Res
Retractable claws, heavy	--	--	21	III
Retractable claws, light	1	20	20	III
Retractable spurs, heavy	--	--	21	III
Retractable spurs, light	1	20	20	III
Sonic compensator	0.5	22	22	--
Sonic vision, grade 1-5	0.5	20	25+grade	--
Subdermal comm set, standard	0.5	20	23	--
Subdermal comm. set, extended	0.5	20	25	--
Subdermal comm. set, secure	0.5	20	26	--
Synaptic boost, grade 1-5	1.5+0.5/grade	25	24+2/grade	--
Telescopic vision	0.5	20	23	--
Thermographic vision	0.5	20	24	--
Voice mask, extended	0.5	20	24	III
Voice mask, standard	0.5	20	22	--

BIOWARE

Analytic Smell

This bioware enhances a human's sense of scent so that he becomes able to detect even traces of chemicals in the vicinity (and identify known substances). There are rumors of those using analytic smell to track down someone by scent.

[A character with analytic smell gains the Scent extraordinary ability. With a successful DC 15 Wisdom check he is able to sniff any trace of chemical substances, such as drugs and explosives (including bullet propellants), within 30 ft unless they are stored in airtight containers.]

Analytic Taste

This bioware enhances a human's sense of taste so much that he becomes able to detect even traces of chemicals diluted in other substances.

[A character with analytic taste receives a +4 biotech bonus to all Wisdom checks related to the sense of taste. With a successful DC 15 check he is able to detect any chemicals in anything he tastes (apart from tasteless substances).]

Analytic Touch

This bioware enhances a human's tactile sense, especially in the fingertips. The increase is such that the recipient is able to "read" printed books with his fingers. He also becomes much more efficient in tasks requiring delicate manual manipulation.

[Analytic touch provides a +4 biotech bonus to any check involving fine manual manipulation, like crafting a miniature, picking a lock, disabling an intricate mechanical device etc.]

Antidote

This bioware consists of a small gland able to detect a specific toxin and produce the antidote for it (if an antidote exists of course). This renders the recipient immune to the toxin.

[Antidote renders the character immune to a single, specific poison.]

Arterial Pump

This bioware reinforces the muscular walls of major arteries to assist the pumping action of the heart. As a result, oxygen is delivered more efficiently, even when the recipient performs heavy physical exercise.

[The arterial pump's recipient gains a +4 biotech bonus on: 1) hourly Swim checks to avoid being fatigued, 2) Constitution checks to continue running and hold his breath, 3) Fortitude saves to resist suffocation or drowning.]

Balance Enhancer

Balance enhancer modifies the inner ear's balance mechanism to provide an unparalleled sense of stability.

[Balance enhancer provides a +4 biotech bonus to Balance checks.]

Cateyes

This bioware modifies the recipient's retinas to include more lowlight-sensitive cells, thus increasing his ability to see clearly in darkness. Cateyes is generally considered a poor man's version of night vision cyberware. While not as good as an implant, it is less expensive and intrusive in the body.

[Cateyes enable the recipient to see in darkness half as far as in broad daylight. Any opponent the recipient attacks gets one degree of concealment due to darkness less. Cateyes do not provide any benefit in total darkness. Someone with cateyes is especially sensitive against bright light (like that of a flash-bang grenade): he gets a –2 penalty to the Fortitude save made to avoid being blinded by one.]

Chloroskin

Popular in areas of the world plagued by food shortages or among space colonists, chloroskin enables the recipient to photosynthesize hydrocarbons, using them to cover a part of his daily dietary needs. Its only drawback is the strange skin coloration.

[Chloroskin covers up to 20% of a person's daily dietary needs assuming that he is bathed by sunlight for at least

6 hours per day.]

Coagulant Factory

This small gland produces improved blood coagulant factors which speed up the closure of wounds, boosting natural healing and possibly saving the recipient's life by quickly halting internal bleeding.

[A coagulant factory comes in several grades. Each grade will increase the recipient's natural healing rate by 2 hit points (eg a 2nd-level character with a grade 1 coagulant factory will recover 4 hit points per evening of rest instead of only 2). Each grade will also confer a +1 biotech bonus to Fortitude saves made to become stable while dying.]

Combat Reflexes

This bioware accelerates instinctive reaction time and natural alertness so that the recipient can effectively avoid incoming attacks and other threats.

[Combat reflexes come in several grades. Each grade provides a +1 dodge bonus to Defense and Reflex saving throws.]

Deep Diver

This bioware adapts the body to high pressure environments. A modified recipient with an oxygen source can dive to great depths without any of the concerns plaguing divers, like using special mixtures of breathable gases, depth cramps or depressurization.

[This bioware allows the recipient to dive down to 1,000 ft with only basic diving equipment without suffering any adverse effects or requiring depressurization afterwards. Deep diver doesn't allow the recipient to breath underwater; it merely compensates for high pressure.]

Desertborn

This bioware enhances the heat exchange system of the recipient, allowing him to shed off heat more quickly and effectively in hot climates.

[Desertborn confers a +5 biotech bonus to Fortitude saves made to resist heat.]

Flexi-joints

This bioware is a heavy modification to the recipient's bone structure, granting him a flexible skeleton. The recipient can dislocate most of his joints with minimal dis-

comfort, fit in tight spaces and escape conventional bonds. The downside is that bones become much more fragile.

[Flexi-joints give a +10 biotech bonus to any Escape Artist checks. However, bludgeoning weapons inflict 50% secondary damage on the character (the concept of secondary damage is explained in the Lock and Load section), the character suffers double damage from falls and he cannot have an endoskeleton or a cyberlimb.]

Gills

This bioware equips the recipient with gill-like structures, enabling him to breath underwater while using his mundane respiratory system on land.

[The recipient can breath underwater.]

Immunoglobulin Factory

This bioware is a gland that produces efficient, fast-acting antibodies, enhancing the body's resistance against any disease. It comes with "pre-programmed" antibodies for the most common diseases someone is likely to encounter.

[Immunoglobulin factories come in several grades. Each grade will provide a biotech bonus to Fortitude saves made against diseases.]

Kinetic Network

This bioware increases the distribution of kinetic nerve fibers to the limbs to augment movement precision and manual dexterity.

[Kinetic networks come in grades. Each grades provides a +1 biotech bonus to Dexterity.]

Learning Enhancer

This bioware modifies an adult's brain chemistry so as to exhibit the learning potential of a child. It is commonly known that children are able to make new knowledge theirs faster than any adult and this bioware's recipient shows this accelerated learning rate.

[The recipient of a learning enhancer gains an extra skill point whenever he advances in level.]

Mnemonic Enhancer

This bioware enhances and sharpens the recipient's mne-

monic capabilities, allowing him to instantly recall in detail almost anything in his memory. Individuals with a mnemonic enhancer have been known to memorize up to 10,000-digit numbers and be able to recall them after years in perfect detail.

[Someone with a mnemonic enhancer can memorize texts up to 100,000 words and numbers up to 10,000 digits in perfect detail. He is also able to recall the detailed description of any person, object or place he has seen. A player with a character having a mnemonic enhancer can ask the Gamemaster to remind him of any important information he forgot to take a note of.]

Neural Boost

This bioware affects the neurons of the central nervous system and provides better processing of stimuli and information, enhancing the ability to concentrate and solve problems.

[Neural boost comes in several grades. Each one will provide a +1 biotech bonus to Intelligence.]

Neural Bridge

This bioware creates new nerve fibers and new kinetic synapses, making the recipient fully ambidextrous and improving his ability to use both hands simultaneously, without loss of coordination or competence.

[The recipient of neural bridge gains the ambidexterity feat, even if he doesn't meet the prerequisites. If he already has this feat, there isn't any gain from neural bridge.]

Neuron Processor

A neuron processor is a group of neurons grown to perform a specific function. It acts as a biological co-processor that can enhance the recipient's ability in certain mundane tasks.

[Each neuron processor is designed to augment a specific skill, although skills that have Constitution, Wisdom or Charisma as their key ability or that can't be used untrained cannot be augmented by a neuron processor. A processor is available in several grades; each grade will provide a +1 biotech bonus to all checks of the skill the processor augments.]

Nictating Membranes

These are slim, transparent films protecting the recipi-

ent's retinas on somatic command (usually blinking hard). They act as an extra eyelid protecting from dust, smoke and liquids.

[Nictating membranes confer a +4 biotech bonus to Fortitude saves against tear gas or other eye irritants.]

Owl

This bioware modifies the recipient so as to abolish the need for sleep. Instead, the recipient replenishes his neurotransmitters and rests simply by meditating for a small part of the day.

[The recipient of the owl bioware doesn't need to sleep, but he has to meditate for 4 hours per day. During meditation, his Spit and Listen DCs are increased by 5.]

Pheromone Control

This bioware modifies the recipient so as to exude subtle but potent pheromones that are detected by those near him, making him appear more attractive and charismatic.

[Pheromone control comes in grades. Each grade will provide a +1 biotech bonus to Charisma, but only for those within 10 ft of the recipient.]

Polarborn

The recipient of this bioware has his vital organs reconfigured to work at low body temperatures. He can survive in temperatures much lower than those a normal human is able to endure. Polarborn is popular among people living in arctic climates.

[Polarborn confers a +5 biotech bonus to Fortitude saves made to resist cold temperatures.]

Resilience

Resilience fortifies the body with more fat and tougher bones, to provide greater resistance against external threats.

[Resilience comes in several grades; each grade will increase the recipient's massive damage threshold by 1.]

Screech

The recipient's voicebox is modified by this bioware in such a way as to be capable of emitting a high-frequency scream. This can break glass and cause temporary deafness to those nearby, but frequent use of this ability can result in temporary or permanent damage to the recipi-

ent's vocal chords.

[The recipient of screech can scream as an attack action. An unleashed scream will temporarily deafen for d4 minutes everyone within 30 ft who fails a Fortitude save (DC 15). Noise suppression or a soundproof helmet protect completely against a screech; good ear plugs will provide a +4 equipment bonus to the Fortitude save. A scream can be safely emitted once per hour. If used more frequently, the character needs to make a Fortitude save (DC 15). On a success, the scream is emitted as usual. On a failure, the scream is emitted but the character can only whisper for the next d4 days. If the saving throw is failed by 5+ points, the character can only whisper until the damage in his vocal chords is surgically repaired.]

Spring Motion

This bioware rewires the legs' tendons so as to provide greater force. It dramatically increases the jumping capability of any man and trained users can better absorb the impact of a fall.

[Spring motion provides a +10 biotech bonus on all Jump checks and a +5 biotech bonus on Tumble checks made to reduce damage from a fall.]

Tesla Shielding

This bioware modifies the composition of the skin so as to increase the body's resistance against electrical currents.

[Tesla shielding comes in grades. Each grade will provide 1 + 1 per grade electrical resistance, which is cumulative with any electrical resistance offered by the recipient's armor.]

Zero-G Adaptation

A must for anyone serious in making a living in space, this bioware adapts the body to the absence of gravity.

[The recipient can spend a lifetime in zero-g, without suffering from muscle atrophy or bone loss.]

Master Bioware Table

Modification	Tolerance	Construction DC	Purchase DC	Restriction
Analytic smell	0.25	20	23	--
Analytic taste	0.25	20	23	--
Analytic touch	0.25	20	23	--
Antidote	0.25	20	23	--
Arterial pump	0.25	22	23	--
Balance enhancer	0.25	22	24	--
Cateyes	0.25	22	22	--
Chloroskin	0.5	22	25	--
Coagulant factory, grade 1-3	0.20+0.10/grade	22	21+2/grade	--
Combat reflexes, grade 1-3	0.25+0.25/grade	25	22+2/grade	--
Deep diver	0.5	25	26	--
Desertborn	0.5	25	25	--
Flexi-joints	0.75	25	25	--
Gills	0.75	22	27	--
Immunoglobulin factory, grade 1-3	0.25	22	21+2/grade	--
Kinetic network, grade 1-5	0.4+0.1/grade	25	21+2/grade	--
Learning enhancer	1	25	28	--
Mnemonic enhancer	0.75	25	27	--
Neural boost, grade 1-5	0.25+0.25/grade	25	25+2/grade	--
Neural bridge	1	25	29	--
Neuron processor, grade 1-5	0.25+0.25/grade	25	23+2/grade	--
Nictating membranes	0.25	20	21	--
Owl	0.25	22	24	--
Pheromone control, grade 1-5	0.20+0.10/grade	22	21+2/grade	--
Polarborn	0.5	25	25	--
Resilience, grade 1-3	0.5+0.25/grade	22	22+3/grade	--
Screech	0.25	20	22	III
Spring motion	0.25	20	22	--
Tesla shielding, grade 1-3	0.5/grade	22	20+2/grade	--
Zero-g adaptation	1	25	28	--

SECTION THREE

SILICON WIZARDRY

HARDWARE

Components

Modern computers are modular devices, meaning that they are made of components that can be easily exchanged with others or upgraded without affecting the rest of the machine. Three of these components are essential for every computer, forming its heart: the processor, the active memory cards and the storage media.

The processor is the brain of a computer, controlling and regulating other components, processing information and executing the commands given to it by the user. The most important trait of a processor is its processing power, ie the speed at which it processes data.

The active memory cards are the short-term memory of the processor. The processor uses the memory they provide to load and run programs and process data. Active memory cards are fast but expensive and their memory isn't permanent, being erased after the power is turned off.

Storage media are the long-term memory of the processor. They are used to permanently store and recall data. Storage media contain all the programs run by the computer, which are transferred to active memory to be executed. Storage media are cheaper than active memory cards, but they're also much slower so that they're only used to store data, while active memory is used to process them.

[Each computer is basically made from three components: a processor, an active memory card and a storage media. If a user links one device from each category together, he is assumed to have a computer. Thus, there are no true "computer models", but each user creates his own machine by selecting the components he likes or can afford. Any component can be replaced by another at a later time without affecting the computer's function.]

[Processor: Each processor is rated for its processing power by the number of Speed slots it has. Speed slots are required to run programs. A processor also has a Size trait, which is useful for determining the overall size of a computer.]

[Active memory cards: All active memory cards provide a number of Active Memory slots, which are use-

ful for loading and running programs. Each active memory card also has a Size trait, which is used in determining the overall size of a computer.]

[Storage media: Each storage media device provides a number of Storage Memory slots, which are used for storing programs and data. Each Storage Memory slot is considered the equivalent of 10 million Active Memory slots in terms of data capacity. A storage device also has a Size trait, which is useful for determining the overall size of a computer.]

Combining Basic Components

There is always the need for more processing power, more memory, more storage capacity. Due to their modular nature, modern computers can easily satisfy these needs by combining multiple devices, like multiple processors or multiple active memory cards. Theoretically, the only limit is set by the size of the resulting machine.

[Active memory cards and storage media can be freely added to a computer and their properties stack. For example, if you add an active memory card with 8 Active Memory slots and one with 4 Active Memory slots, you have 12 slots to use.]

[Processors are handled a little differently with regards to their Speed slots, because processing power can't be easily quantified. A very fast processor has little to gain by the addition of a slow one. Thereby, when determining the total Speed slots available to a multi-processor computer follow this method:]

- [1. Take the Speed slots of the faster processor.]
- [2. Add the Speed slots of the next faster processor (which may be of equal power if the user has added identical processors.)
- [3. Add the Speed slots of the next faster processor minus one (to a minimum of 0).]
- [4. Add the Speed slots of the next faster processor minus two (to a minimum of 0).]
- [5. Add the Speed slots of the next faster processor minus three (to a minimum of 0).]
- [6. Etc, etc....]

[Examples:]

[4 Speed slots + 1 Speed slot = 5 Speed slots]

[4 Speed slots + 1 speed slot + 1 Speed slot = 5 Speed slots]

[4 Speed slots + 4 Speed slots + 2 Speed slots = 9 Speed slots]

[4 Speed slots + 4 Speed slots + 2 Speed slots + 2 Speed slots = 9 Speed slots]

[6 Speed slots + 5 Speed slots + 4 Speed slots + 3 Speed slots = 16 Speed slots]

Size

A computer's size is important for its function. A nano-computer can not be too large as it must be implanted in a limited space inside the cranial cavity. Someone who needs a portable computer can not add any number of devices and accessories. On the other hand, someone with access to an empty warehouse can conceivably build a supercomputer by combining tons of processors, memory cards and storage media together.

[A computer's size is determined by adding the Size traits of all its components together and consulting the following table.]

Processors

The processor is the most essential part of a computer, rightfully considered its heart and brain. Modern processors are incredibly complex devices using miniaturization

Total Size	Computer Type
1-5	Nanocomputer
6-9	Palm computer
10-14	Portable computer
15-25	Desktop computer
26-50	Mainframe (small room)
51-150	Mainframe (large room)
151-300	Mainframe (small apartment)
301-600	Mainframe (large apartment)
601-1200	Mainframe (warehouse)
1201+	Mainframe (vast complex)

technology to fit as many transistors as possible in a limited space, but they can all fit in one of two categories. The first and most common category is that of CISPs, Complete Instruction Set Processors. These processors have many different commands embedded that can be used to create any algorithm possible. The other category is that of RISPs, Reduced Instruction Set Processors. RISPs contain only a few, basic commands embedded in them that a programmer can combine to create a complex algorithm. The philosophy behind RISPs is that a set of a few basic commands can be used in the most optimal way in each individual case, thereby increasing speed dramatically as no processing cycles are wasted. RISPs never became popular because their programming is difficult, although they are considerably faster than CISPs.

Processor	Speed Slots	Size	Purchase DC
CISP, 128-bit	1	1	10
CISP, 128-bit extended bus	2	1	12
CISP, 256-bit	3	1	14
CISP, 256-bit extended bus	4	1	16
CISP, 512-bit	5	2	18
CISP, 512-bit extended bus	6	2	20
CISP, 1024-bit	7	2	22
CISP, 1024-bit extended bus	8	2	24
CISP, 2048-bit	9	3	26
CISP, 2048-bit extended bus	10	3	28
RISP, 128-bit	2	1	10
RISP, 128-bit extended bus	3	1	12
RISP, 256-bit	4	1	14
RISP, 256-bit extended bus	5	1	16
RISP, 512-bit	7	2	18
RISP, 512-bit extended bus	8	2	20
RISP, 1024-bit	9	2	22
RISP, 1024-bit extended bus	10	2	24
RISP, 2048-bit	11	3	26
RISP, 2048-bit extended bus	12	3	28

[RISPs can only run programs specifically designed for them. Any program can be purchased as a RISP program by increasing its Purchase DC by 2 points (its Programming DC is also increased by 3). CISPs and RISPs cannot be combined in the same together.]

Active Memory Cards

Standard memory cards have been used for years to provide computers with fast, readily accessible memory for running programs and processing data. There are also two other kind of memory cards. Mini memory cards offer expanded capacity in a reduced space; they are designed to be used in nanocomputers and portable computers. Ultraburst cards provide very fast memory access and can actually accelerate a computer's performance. However, they are expensive and don't cooperate with standard memory cards very well. They're best used in small computers that can't take multiple processors to provide a boost in speed.

[Ultraburst memory cards will provide one extra Speed slot if used exclusively. If they are mixed with standard memory cards this benefit is lost.]

Storage Media

Modern storage media are either magnetic or optical ones. Magnetic media use a ferromagnetic material, which they magnetize using induction technology to store data. The best magnetic mini-drives can magnetize extremely small parts of the ferromagnetic material, almost on a molecule to molecule basis. Magnetic storage devices provide fast read and write access, making them the most versatile storage media in existence. Optical storage devices include the old and trusted optical disc drives and the relatively new holodrives. Both types have the advantage of great capacity in a cheap, removable media; an optical disc is a cheap piece of plastic that can store vast amounts of data. However, while optical media provide very good read speed they don't have the readily available record functions of magnetic media, since anything recorded on them is more or less permanent and the recording process takes some time. Because of this, most optical media are used for backup records or archives. The difference between an optical disc drive and an holodrive is mainly one of capacity. A disc drive uses a laser beam to read the data recorded on the reflective surface of a disc, while the holodrive uses the beam to read the

Memory Card	Active Memory Slots	Size	Purchase DC
Standard 512mb	1	1	8
Standard 1024mb	2	1	10
Standard 2048mb	4	2	12
Standard 4096mb	8	2	14
Standard 8192mb	16	3	16
Standard 16384mb	32	3	18
Standard 32768mb	64	4	20
Mini 2048mb	4	1	14
Mini 4096mb	8	1	16
Mini 8192mb	16	1	18
Mini 16384mb	32	2	20
Mini 32768mb	64	2	22
Ultraburst 512mb	1	1	9
Ultraburst 1024mb	2	1	11
Ultraburst 2048mb	4	2	13
Ultraburst 4096mb	8	2	15
Ultraburst 8192mb	16	3	17
Ultraburst 16384mb	32	3	19
Ultraburst 32768mb	64	4	21
Mini ultraburst 2048mb	4	1	15
Mini ultraburst 4096mb	8	1	17
Mini ultraburst 8192mb	16	1	19
Mini ultraburst 16384mb	32	2	21
Mini ultraburst 32768mb	64	2	23

data recorded as holograms in a special crystal. As a holocube uses a 3-dimensional space to save data, its storage capacity is much greater compared to the 2-dimensional surface of an optical disc.

[Optical disc drives and holodrives cannot be used in nanocomputers as they can't be readily accessed due to their removable nature.]

Nanocomputers

Nanocomputers are implanted in the cranial cavity and act twofold, controlling other cybernetic implants and providing the common services all computers offer. Because of their unique function they have some special issues.

Storage Device	Storage Memory Slots	Size	Purchase DC
Magnetic drive 20tb	4	2	10
Magnetic drive 40tb	8	2	12
Magnetic drive 60tb	12	3	14
Magnetic drive 80tb	16	3	16
Magnetic drive 100tb	20	4	18
Magnetic drive 150tb	30	4	20
Magnetic drive 200tb	40	5	22
Magnetic drive 400tb	80	6	24
Magnetic mini-drive 20tb	4	1	12
Magnetic mini-drive 40tb	8	1	14
Magnetic mini-drive 60tb	12	1	16
Magnetic mini-drive 80tb	16	2	18
Magnetic mini-drive 100tb	20	2	20
Optical disc drive, read only*	?	4	10
Optical disc drive, read/write standard*	?	4	14
Optical disc drive, read/write high speed*	?	4	16
Optical disc drive, read/write ultra speed*	?	4	18
Holodrive, read only*	?	4	15
Holodrive, read/write standard*	?	4	20
Holodrive, read/write high speed*	?	4	24
Holodrive, read/write ultra speed*	?	4	28
Optical disc, low density*	1	--	1
Optical disc, high density*	2	--	2
Optical disc, ultra density*	4	--	3
Holocube, low density*	8	--	5
Holocube, high density*	16	--	7
Holocube, ultra density*	24	--	9

[*Optical disc drive, read only: This device accepts optical discs, which determine its Storage Memory slots, but it can only read the contents of an optical disc, not write data to it or delete any information stored.]

[*Optical disc drive, read/write: This device accepts optical discs, which determine its Storage Memory slots. It can both read an optical disc and write data to it (or delete data). Writing data isn't instantaneous but takes some time depending on the size of the data and the disc drive used. A standard disc drive writes or deletes data at the rate of one memory slot per round, a high speed drive at the rate of 2 memory slots per round and an ultra speed drive at the rate of 3 memory slots per round.]

[*Holodrive, read only: This device accepts holocubes, which determine its Storage Memory slots, but it can only read the contents of a holocube, not write data on it or delete data.]

[*Holodrive, read/write: This device accepts holocubes, which determine its Storage Memory slots. It can both read a holocube and write data to it (or delete data). Writing data isn't instantaneous but takes some time depending on the size of the data and the holodrive used. A standard drive writes or deletes data at the rate of one memory slot per round, a high speed drive at the rate of 2 memory slots per round and an ultra speed drive at the rate of 3 memory slots per round.]

[*Optical disc: These discs are made to be received by an optical disc drive.]

[*Holocubes: Holocubes are made to be received by a holodrive.]

Control Slots

Control slots are used by the nanocomputers to control cybernetic implants that require a lot of processing power. They take the form of specialized ports that are configured prior to the surgical installation of the nanocomputer. The decision over how many control slots to install must not be taken lightly, because after the nanocomputer is installed only through surgery is it possible to configure or remove ports.

[When purchasing a nanocomputer, you can select one or more of the processor's Speed slots to be Control slots usable for controlling implants. These Speed slots to be Control slots cannot be used for running programs. After the nanocomputer is installed, if you wish to alter the configuration (convert Control slots back to Speed slots, or devote more Speed slots to Control slots) the nanocomputer must be surgically accessed, as for upgrading below (Purchase DC 16 if you hire a surgeon for the job).

Installing and Upgrading

As all cybernetic implants, nanocomputers need to be surgically installed. Any future upgrade you want to make (for example, adding a new processor or more memory) also requires a surgical operation to access the nanocomputer, making the upgrade process both discomforting and expensive.)

[The surgical installation of a nanocomputer has a cost equal to Purchase DC 20 (apart from the basic cost of the nanocomputer itself). This cost can be forfeited if you have access to the proper medical facilities and you get a friend with the skills to do the job on you. Installing a nanocomputer requires the Surgery feat and a successful Treat Injury check at DC 25. The operation takes 2d3 hours. Afterwards, you are fatigued for 2 days and you have to begin the immunity suppression treatment, as described in the Beyond Flesh section.]

[Upgrading a nanocomputer also requires sur-

gery, this time with Purchase DC 16. If you follow the cheap way of getting a friend to do it, the surgery DC is 20 and the operation takes d3 hours. Afterwards, you are fatigued for 2 days but you don't have to be put under any immunity suppression treatment.]

[Note that nanocomputers have a maximum Size of 5. You can't add any extra equipment beyond this Size to a nanocomputer.]

Bioelectrical Interface

Nanocomputers are wired to the neurons of the central nervous system. This enables them to receive the mental commands of the user and translate them into electrical currents understood by machines. In effect, the user is able to control the nanocomputer (and therefore everything else the nanocomputer controls) with his thought. This is the fastest and smoothest way of communication between man and machine and is known as the bioelectrical interface. It is what makes nanocomputers so special compared to other, mundane machines.

[When putting together a nanocomputer, you have to buy a bioelectrical interface for it apart from the basics (processor, active memory cards, storage media etc. A bioelectrical interface has Purchase DC 24.)

Ports

Ports enable a computer to communicate with other devices, sending to or receiving data from them. Although in this era this type of communication is mostly handled by the hivenet, ports are still useful for fast, direct communication between devices. There are generally three kinds of ports: cable, infrared and remote ones. Cable ports connect to a cable running between the two devices and rely on it to transfer data. They're fast and cheap, but impractical when the devices are separated by a large distance. Infrared ports use infrared beams to communicate remotely with other infrared ports. They don't re-

Port	Data Exchange Rate	Size	Purchase DC
Cable, grade 1	3 memory slots per round	1	13
Cable, grade 2	6 memory slots per round	1	15
Cable, grade 3	9 memory slots per round	1	17
Infrared, grade 1	3 memory slots per round	1	15
Infrared, grade 2	6 memory slots per round	1	17
Infrared, grade 3	9 memory slots per round	1	19
Remote, grade 1	3 memory slots per round	1	16
Remote, grade 2	6 memory slots per round	1	18
Remote, grade 3	9 memory slots per round	1	20

quire any cable, but their range is rather limited. Remote ports broadcast data to other remote ports using radio-waves. They have a great range but their data may be intercepted or disrupted by countermeasures.

[Ports come in grades. Every computer comes with a built-in grade 1 cable port at no additional cost or increase in size, but you can also add extra ports at your expense. Nanocomputers don't use ports; they use the datajack ports described in the Beyond Flesh section.]

[Each port can connect to one other port of the same type (eg a cable port can't connect to a remote port). The grade of a port determines the maximum amount of data the connection can move in terms of storage memory slots per round; this functions like hivenet bandwidth. The exact data exchange rate of a connection is always determined by the slowest port. For example, if a grade 3 port is connected to a grade 1 port, the connection will function at the data exchange rate of the grade 1 port.]

[Cable ports: Cable ports require a cable running between them.]

[Infrared ports: An infrared port can communicate with another infrared port up to 45 ft away without any obstacles between.]

[Remote ports: A remote port has an effective range of 20 miles.]

Co-Processors

Coprocessors are designed to assist a computer's main processor in specialized tasks. Each coprocessor is built with a specific function in mind, for example mathematical analysis or graphical applications, and performs very well in this field, freeing up the main processor to deal with other tasks.

[Coprocessors are connected to a processor. In computers with multiple processors, at least half of them must have linked coprocessors (of the same typ) to reap their benefits.]

Bandwidth Regulating

This coprocessor uses advanced compression algorithms and data package regulation to speed up data transmission and reception over the hivenet.

[A bandwidth regulating coprocessor increases the available bandwidth by 1 memory slot per round.]

Cryptographic

This coprocessor contains hardware support for cryptography algorithms, enhancing and boosting the speed of both encryption and decryption procedures. Its use is restricted to government agencies and large corporations. Chips of these type falling into the hands of hackers or spies is a nightmare to computer security personnel.

[Any encryptor or decryptor program run on a computer equipped with a cryptographic processor is treated as being one grade higher than it actually is (to a maximum of grade 5). These programs also double the rate at which they encrypt or decrypt data.]

Defensive

This coprocessor sets up filters analyzing incoming data signals and disrupts the sequence of any harmful data, lessening or even negating the effects of attack software.

[A defensive coprocessor inflicts a -3 penalty on the damage roll of any attack program successfully hitting the computer.]

Offensive

An offensive coprocessor scans a digital opponent's defenses for weak points and guides offensive programs to punch through them.

[An offensive coprocessor grants a +1 equipment bonus to the attack and damage rolls made by the user in the hivenet.]

Software Booster

This dedicated coprocessor is designed to assist a specific program, handling its functions and memory access

Coprocessor	Size	Purchase DC	Restriction
Cryptographic	1	20	Res
Bandwidth regulating	1	13	--
Defensive	1	16	Lic
Offensive	1	18	Mil
Software booster	1	16	--

so that it runs faster and needs less memory.

[A software booster is purchased for a specific program; it cannot assist any other program. The coprocessor halves (rounding up) the requirements of the program in speed and active memory slots.]

Misc. Hardware

Dataline Tap

This device is similar to the old phone taps, but can be used to "read" any kind of data being transferred through a cable, be it voice, video, files etc. Dataline taps report this data to a device connected to their output port, which is either a cable or a remote port. Because they slightly interfere with a cable's signal, they can be detected by someone suspecting their use.

[There are two versions of the dataline tap; one uses a cable port, the other uses a remote port. When placed on a cable, the tap reports all data transferred through it to a device connected to its port. The presence of a dataline tap can be detected by someone running a tap detector program on a computer connected to the cable.]

Induction Jack

The induction jack resembles dataline taps in function but has the great advantage of being completely undetectable (short of visual detection). When secured around an optic cable, it "reads" any data transferred through the cable (voice, video, raw data etc) and sends them to an output port that can be either a cable or a remote one.

[There are two versions of the induction jack; one uses a cable port, the other uses a remote port. When placed around a cable, the jack reports all data transferred through the cable to a device connected to its port. Both versions are completely undetectable, as they don't interfere with the cable's signal, unless of course someone

decides to visually inspect the cable.]

Quad-Processor Mount

This expensive device acts as a base receiving up to 4 processors and uses smart links between them as well as a central coordinating unit to make better use of their combined processing power. Quad-processor mounts are commonly used in supercomputers, which combine tens, hundreds or even thousands of separate processors. The disadvantage of quad-processor mounts is that they're very vulnerable to destroyer or killer programs, because the links transmit their destructive effects to all processors in a mount.

[A quad-processor mount can receive up to 4 processors. All quad-processor mounts installed in the same computer are treated as a single processor with speed slots equal to the sum of their individual processors. For example, a quad mount having 3 processors with 6, 6 and 4 speed slots respectively, functions as a single processor with 16 speed slots. Two quad mounts like the above function as a single processor with 32 speed slots. If quad mounts are mixed with processors not mounted, use the regular system to determine how many speed slots the computer has. For example, a quad mount with 12 slots combined with a 4-slot and two 3-slot processors (not mounted) will give 19 slots.]

[Against attack programs, each processor installed in a quad mount is treated as a separate processor. However, any damage result applied on a processor installed in a quad mount also applies to all other processors of the same mount. There is the temptation of treating a quad mount as a single processor for damage purposes, in order to ease up calculations. This can be done in systems that use only quad mounts, but in systems that mix mounts with individual processors this would affect the randomness of the attack (giving a whole mount and a single processor the same chance to be affected).]

Hardware	Size	Purchase DC	Restriction
Quad-processor mount	4	24	--
Induction jack, cable	--	16	Res
Induction jack, remote	--	18	Res
Dataline tap, cable	--	12	Res
Dataline tap, remote	--	14	Res

USER INTERFACE

Computers are not truly autonomous machines. They execute the commands given by their users and sometimes require their active input, hence they need a method of communicating with them. This method is known as user interface. Two types of user interface are available today. The first, known as somatic interface, requires the user to communicate with the computer through somatic commands. This interface has been used since the very first days of computers. Although the somatic interface has progressed far since the use of mouse & keyboard to include virtual reality headgear and gloves, voice recognition devices etc, it still requires the user to exercise some sort of somatic control over the computer. The second kind of user interface appeared along with nanocomputers and is known as the neural interface. Using a nanocomputer and a datajack, the user can control any device with his thought by issuing mental commands. This is considerably faster and smoother than the somatic interface.

Somatic interfaces are more common because many people still distrust the use of Cyberware and the occasional hivenet user believes them to be safer. Neural

interfaces are considered cutting-edge and used by technology gurus, power users and hackers. The fast control they provide comes at a price: because the nanocomputer is located inside his body, someone using a neural interface may suffer severe physical damage by offensive programs targeting such interfaces.

[A neural interface requires a nanocomputer and a datajack. The computer you control with a neural interface doesn't have to be your nanocomputer; it can be any computer your nanocomputer is linked to. This means that you can use your nanocomputer to control a more powerful desktop computer to access the hivenet using a neural interface; in this case you use the equipment and statistics of the computer you control, not the nanocomputer.]

[The difference between somatic and neural interfaces is in the time required to complete a computer-related task. A neural interface will generally be faster, allowing you to concentrate on the more important aspects of your work. However, a neural interface can be targeted by special offensive programs (this can happen even if you use the nanocomputer to control another computer.)

ONE SKILL, MANY USES

[In CYD20, the Computer Use skill handles many things that are often widely different from one another: programming, hacking, searching for data in the hivenet etc. It would be illogical to assume that someone knows all subjects covered by Computer Use equally well. For example, a corporate programmer may know everything there is about programming but lack in hacking because he has never practiced that field of computer operation. One way to simulate this is to create several different skills, one for each possible field of computer operation. However, this would penalize characters wishing to make computers their business by forcing them to spend many skill points among numerous skills. Instead, CYD20 uses a specialties system.]

Specialties

[Computer Use has many specialties. When a character purchases the 1st rank in the skill, he's allowed to select one specialty. At 5, 10, 15, 20 ranks and so on he can select an additional specialty.]

[When the character attempts a computer-related task, he uses his full ranks in the skill if he has the specialty applying to the task. If he doesn't, his skill ranks are halved for that particular task.]

[**Example:** A character has Intelligence 14, 9 ranks in Computer Use and the infiltration and network manipulation specialties. When he takes the bypass authentication action to break into a secure system, which requires the

infiltration specialty, his bonus for the skill check is +11 (+2 from Intelligence, +9 from the ranks). If he wants to delete a file from the secure system, something which requires the file manipulation specialty he doesn't have, his skill bonus is only +6 (+2 from Intelligence, +4 from one-half the ranks).

[The following specialties are available:]

[**Cryptography:** Applies to encrypting or decrypting data.]

[**Data search:** Applies to searching for information in the hivenet, locating a particular file or database entry etc.]

[**Database manipulation:** Applies to database operations, like adding, changing or deleting records.]

[**File manipulation:** Applies to file operations, like copying or deleting.]

[**Infiltration:** Applies to attempts made to access security sites, bypass their security mechanisms, delete logs of your actions etc.]

[**Network assault:** Applies to attacking in the hivenet using combat software.]

[**Network defense:** Applies to defending against combat software.]

[**Network manipulation:** Applies to network operations, like locating a user or tracing him to his physical location.]

[**Programming:** Applies to creating new programs or upgrading existing ones.]

THE HIVENET

What started as the ARPAnet near the end of the last century and gradually evolved into the globe-spanning computer network known as the Internet would eventually take a completely different form, purpose and destination, becoming a web of silicon strands covering the world. As it grew, the Net assimilated conventional telephony, television, radio and most other traditional forms of communication and information. It began controlling, categorizing and regulating every kind of human activity and constructs, from tax records to satellite orbits to distribution of electrical power. At some point it became hard to find someone who didn't have access to the Net, retaining a digital identity, at least in developed nations. The Net had evolved in a giant hive where humanity met, discussed and satisfied many of its needs. It was then that the term "hivenet" first appeared. It has now become a standard in describing the computer network spread across the world.

The hivenet is a world which most people visit occasionally and in which data traders, hackers, information couriers, wireheads and other by-products of the Information Age make their living. Some consider it more real than the real world. Others even consider it a living organism that has developed a limited form of sentience. Whatever the truth may be, everybody knows about the way the hivenet is structured.

The hivenet isn't controlled by a single computer or group of computers. In fact, the hivenet isn't controlled by anyone. It's a giant conglomeration of independent computer systems linked together in one giant network enabling them to share information. No system is more "valuable" than the other, but all add together to the hivenet's image as a place where you can find pretty much

anything you like.

Hivenet structure is based on nodes. Nodes are central points in the grater structure which lead to other points. Nodes lead to other nodes and these t other nodes, until someone reaches his final destination. Some nodes are greater than others, because they act as routes which lead to smaller nodes. Nearly every major city has its own great node. Each node represents a different world in the virtual reality of the hivenet. Central nodes are often built according to the host country's culture. The Athens node may include a virtual Parthenon, while the New York node may be based around a magnificently bright Statue of Liberty. Smaller nodes are designed according to their function. The node of a pharmaceutical corporation may be designed as a medical laboratory. A small node is usually ran by a single computer system, while tens or hundreds of systems may cooperate to retain the illusion of a central node.

Bandwidth

Every computer connected to the hivenet links to its servers through a line of communication, whether this is a satellite, optic fibers or a combination of both. The quality and speed of this connection doesn't depend on the processing power of the computer but on the speed of the communication line used, its ability to move data from and to the hivenet. This is commonly known as bandwidth. The available bandwidth for a connection to the hivenet is mainly a matter of how much you're willing to pay to the service provider offering the communication line. Bandwidth is very important for those who want to transfer large amounts of data over the hivenet or use features

Comm Line	Bandwidth	Purchase DC (per month)
Optic fiber, lowband	1 memory slot/round	10
Optic fiber, highband	2 memory slots/round	15
Optic fiber, broadband	4 memory slots/round	20
Optic fiber, ultraband	8 memory slots/round	25
Satellite link, lowband	1 memory slot/round	15
Satellite link, highband	2 memory slots/round	20
Satellite link, broadband	4 memory slots/round	25
Satellite link, ultraband	8 memory slots/round	30

Hivenet Damage Table

Damage Rolled	Disruptor	Destroyer	Killer
1-2	Connection surge	Controls ionized	Controls ionized
3-4	Connection disrupted	Controls ionized (extended)	Controls ionized (extended)
5-6	Softwipe (d4)	Memory card disrupted	Memory card disrupted
7-8	Softwipe (d8)	Storage device disrupted	Storage device disrupted
9-10	Softwipe (d12)	Processor disrupted	Processor disrupted
11-12	Connection broken	Memory card damaged	Memory card damaged + burn
13-14	Hardwipe (d4)	Storage device damaged	Storage device damaged + burn (+2)
15+	Hardwipe (d6)	Processor damaged	Processor damaged + burn (+4)

[**Burn:** If the target uses a neural interface, make a d20 roll and add the bonus in the parenthesis on the burn damage table.]

[**Connection broken:** The target is disconnected from the hivenet.]

[**Connection disrupted:** The target's bandwidth is halved for d6 rounds. If more than half of the bandwidth was already in use, the target decides how he assigns the remaining slots to current tasks. Extra results of this category don't halve the bandwidth again, but they increase the duration.]

[**Connection surge:** Any file transmission or reception currently in progress by the target is lost and has to be initiated again from the beginning.]

[**Controls ionized:** The target suffers a -2 penalty to Computer Use checks for one round. If an extended result is achieved. The penalty endures for d4 rounds. Multiple results of this category don't inflict an additional penalty but they increase the duration.]

[**Hardwipe:** A number of storage memory slots worth of data are deleted from the target's computer. The target decides which programs or data are deleted from storage memory; this data is unrecoverable. Active programs that are deleted from storage memory are also removed from active memory. Note that even partial deletion of a program from active memory (eg one slot out of the 5 used by the program is deleted) destroys the program. Data cannot be deleted from an optical disc or holocube loaded in a read-only optical drive or holodrive.]

[**Memory card damaged:** As memory card disrupted, but the memory card ceases functioning until it is repaired.]

[**Memory card disrupted:** One of the target's active memory cards (chosen randomly) stops functioning for d6 rounds. The resulting decrease in active memory slots may force the target to deactivate some programs; in this case the target decides which programs to deactivate. Multiple results of this category always prefer to affect different memory cards, if there are any available.]

[**Processor damaged:** As processor disrupted, but the processor stops functioning until repaired.]

[**Processor disrupted:** One of the target's processors (chosen randomly) stops functioning for d6 rounds. The resulting decrease in Speed slots may force the target to deactivate some programs; in this case the target decides which programs to deactivate. Multiple results of this category always prefer to affect different processors, if there are any available.]

[**Softwipe:** A number of active memory slots currently in use by the target are deleted. The target decides which programs are deleted from active memory; he has to load these programs again if he wants to continue using them. Note that even partial deletion of a program from active memory (eg one slot out of the 5 used by the program is deleted) renders the program useless.]

[**Storage device damaged:** As storage device disrupted, but the device ceases functioning until it's repaired. A magnetic drive affected by this result loses all data or programs stored in it permanently. Optical drives and holodrives won't function, but the optical discs and holocubes used by them are unaffected.]

[**Storage device disrupted:** One of the target's storage devices (chosen randomly) ceases functioning for d6 rounds. During this time any data or programs stored in the device are inaccessible. Active programs that are stored in the device are also removed from the active memory. Multiple results of this category always prefer to affect different storage devices, if there are any available.]

like real-time decryption.

[Bandwidth is mainly used for transferring data over the hivenet and determines the maximum number of Storage Memory slots your comm. line can move each round. Bandwidth may be split between uploading tasks (sending data over to another computer) and downloading tasks (retrieving data from another computer) in anyway you want. For example, if you have a maximum bandwidth of 5 memory slots/round, you can simultaneously upload a file at the rate of 3 memory slots/round and download another file at 2 memory slots/round, download a file at 2 slots/round and another at 3 slots/round etc.]

[Bandwidth is purchased by specialized service provider companies. Service providers usually "hire" comm. lines and their subscribers pay the listed Purchase DC each month. There is the option of buying a permanent comm. line, but such a thing is expensive: increase the listed Purchase DC by 7 points.]

[Two types of comm. lines are available at the moment for connecting to the hivenet. The first are the widely used optic fiber lines. They are cheap, provide great speed but they can only be used from a fixed location. Satellite links on the other hand, are more expensive for the same bandwidth but can be used from anywhere,

Burn Damage Table

Roll	Burn Damage
1-3	Shock
4-6	Kinetic center overload
7-9	Synapse overload
10-11	Vertigo
12-13	Sensory overload
14-15	Mindwipe
16	Language center collapse
17	Bioelectrical collapse
18	Kinetic center collapse
19	Massive brain hemorrhage
20+	Coma

[Bioelectrical collapse: The user's synapse links with his nanocomputer are burnt out. His nanocomputer, as well as all implants requiring it to work, stops functioning. The nanocomputer's functioning can be restored by waiting for 4d6 weeks until the links heal and making a new surgical operation to connect the computer to them.]

[Coma: The user falls into a coma lasting for 4d6 months.]

[Kinetic center collapse: The user suffers d4 permanent Dexterity drain.]

[Kinetic center overload: The user suffers d6 temporary Dexterity damage.]

[Language center collapse: The user immediately loses one of his language skills (it may be re-learned). The lost language is determined randomly, but the user's native language is only affected if there are no other languages remaining. If the user's language is affected, it is not erased, but the user is unable to form coherent sentences with it (DC 12 Intelligence check to understand what he's trying to say).]

[Massive brain hemorrhage: The user immediately loses 4d10 hit points.]

[Mindwipe: The user suffers from temporary amnesia for 4d6 weeks. He can't use any skills which can't be used untrained, except from language skills, and all other skills function at half effective ranks.]

[Shock: The user immediately loses d6 hit points.]

[Sensory overload: The user temporarily loses the use of one sense. Roll a d10 to determine the sense lost: 1-2 sight, 2-4 hearing, 5-6 scent, 7-8 taste, 9-10 touch. The loss lasts for d4 days.]

[Synapse overload: The user must succeed in a DC 15 Fortitude save or be rendered unconscious for d10 hours.]

[Vertigo: Balance centers are temporarily overloaded. The user suffers from acute vertigo that inflicts a -6 penalty to Dexterity for d4 days.]

even by someone on the move, with the help of a cell phone (see the Hi Tek section).]

[Up to five comm lines may be linked together and their bandwidth is cumulative.]

[Hivenet combat is organized in rounds, as real-world combat. Combatants have their usual action allowance and make initiative and attack rolls.]

Hivenet Combat

Primitive attack programs for computer networks were known since the late 20th century, but in the modern era these programs have been developed and refined so that they are able to destroy computers from a distance and even kill a user, giving a whole new meaning to the term "digital crime". With the development of offensive software, it was only a matter of time before programs which defended against such attacks appeared. The result is that today, some regions of the hivenet are as dangerous as any rough neighborhood.

Combat Organization

Hivenet Initiative

[Initiative in hivenet combat is figured differently. The initiative check for someone using a somatic interface is d20 + Int modifier. For someone using a neural interface the initiative check is d20 + Int mod + 2 per grade of the datajack port he uses (eg someone using a grade 2 cable port to connect to the hivenet rolls d20 + Int modifier + 4).]

[A character's Dexterity modifier or the improved initiative feat doesn't modify his hivenet initiative.]

Awareness and the Digital

Battlefield

[Hivenet combat requires common ground. This means that all participating combatants must be in the same node (ie logged on the same system) and that fleeing is simply a matter of logging off from a node. Someone who is currently logged on the PharmaTek corporation network cannot attack another user located in the IRS central network, unless he logs off one node and logs on to the other. The combatants need also to have access to the node, either legitimate (having the proper access codes) or illegitimate (bypassing the authorization mechanism).]

[Attacking another user also has another requirement: you must be aware of his presence in the node. This is automatic if the other user is in a public node and doesn't care to conceal his presence, but the matter is complicated if he's a hacker infiltrating the system. A user who conceals his presence can only be found by running a network scan (taking the network scan action) or by tracing him through his identification key (taking the locate user action). Any user that attacks another user is instantly made obvious from the incoming trail of data, so it is impossible to surprise someone in hivenet combat.]

[The hivenet is not a physical space and thus a character can't "move" through it. The only kind of movement is logging off a system. A character taking a full-round action in the hivenet can only take a 5 ft step in the real world.]

Hivenet Attack Bonus

[The attack bonus for a hivenet attack is equal to the bonus a character has in the Computer Use (network assault) skill, including skill ranks, Intelligence modifier, feats and other factors modifying the skill bonus. Normally, a hivenet combatant is able to only make one attack per round.]

[Splitting the attack bonus: A character using a neural interface, having at least 5 ranks in Computer use and possessing the network assault specialty, can take the full network attack action to make multiple attacks in a round by "splitting" his bonus among the attacks (eg if he has a +7 bonus he can choose to make one attack with a +4 bonus and one with a +3 bonus). When using this option, a character can make up to one extra attack per 5 ranks in Computer Use. However, each attack programs may be used to attack only once per round, so the character must have multiple attack programs in active memory to make use of this option.]

Hivenet Defense

[A character's Defense in the hivenet is equal to 10 + his bonus in the Computer Use (network defense) skill (including skills ranks, Intelligence modifier, feats and other factors modifying the skill bonus). Feats, equipment and other factors modifying a character's Defense in the real world do not affect his Defense in the hivenet. The use of defensive software increases Defense and is highly recommended.]

[Full defense: If a combatant forfeits all attacks during a round, he gains a +4 bonus to his Defense until the next round.]

[Fight defensively: A combatant possessing the network defense specialty of the Computer Use skill can choose to fight defensively, taking a -2 penalty to all attack rolls he makes during a round to gain a +2 bonus to his Defense until the next round.]

Combat in a Secure System

[Someone who has infiltrated a secure system and has to fend off its security measures finds himself in a serious disadvantage when confronted by someone with legitimate access to the system (or one of the system's drone guardians). Attack rolls on part of the user do not have to beat the system's Security level to be successful and do not bring repercussions if they fail, but they still suffer a -1 penalty for every 10 points (or fraction thereof) of Security the system has. Thus, a system with Security 25 will inflict a -3 penalty to the attack rolls of a hacker.]

Hivenet Combat Damage

[Attack programs are generally divided in three categories: disruptor, destroyer and killer programs. All of them have damage dice, as real-world weapons do, but they don't cause "real" damage. Instead, the result of the damage dice is compared to the appropriate damage table (one for each program category) to determine the effect. It is impossible to attack in the hivenet without using an attack program.]

[Disruptor programs are considered the most harmless of all. They usually disrupt the communication lines of the target and may cause some software damage by deleting files, blocking access to memory etc.]

[Destroyer programs target hardware by overriding a computer's control over its circuits and causing

catastrophic power surges. These programs can completely destroy a remote computer.] (in this case, both the nanocomputer and the other computer suffer any damage effect rolled). Killer programs may produce a “burn” result, which means that the target has suffered brain damage. A “burn” result only affects a target with a neural interface and requires a d20 roll on a separate table.]

[Killer programs are the most dangerous of all. They usually function as destroyer programs, but they have the frightening potential to turn a nanocomputer against its user, inflicting severe damage on his brain, even killing the target. This can happen even if the target simply uses a nanocomputer to control another computer

HACKING

In a world where information is power and computers are weapons, hackers are the ultimate soldiers. Experts in infiltrating secure remote systems and stealing the secrets they hold, they are the heroes of modern fairy tales, battling security drones instead of dragons and getting away with a treasure of data instead of rescuing the princess. Some are idealists, still believing in the "information wants to be free" motto, while others are hired mercenaries in the world of data trading and corporate espionage.

Security

The paranoia typical of modern computer networks ensures that even the most basic computer system has some degree of security to defend against intruders. Important systems typically have increased security measures which can complicate a hacker's job. In the language of hackers, the security of a system is described using a color code, from green (the most basic security) to black (the highest level of security possible and the dream of any dedicated hacker to one day crack).

[Every remote system has a Security level, which acts as the DC for any Computer Use checks made by the hacker while working in the system. The Security level of a system varies according to the function it serves and the importance of the data stored in it. The Security levels described here come with a Purchase DC; this is the cost of the security equipment and software used to make a system that secure.]

The Price of Failure

The security mechanisms of a computer system can be described as the antibodies and white blood cells of a human organism. In this case, a hacker is the virus. Every

move he takes is countered by the system's security. It is possible that the god of hacking can infiltrate an ultrasecure system, do his job and get out without being noticed by any security measure, but most hackers are men and they make mistakes. And while most people have a chance to learn from their mistakes, in the hacker business there is no place for them.

[The security measures of a computer system are activated every time the hacker fails a Computer Use check by more than 5 points. In this case, roll a d12 on the security table corresponding with the security level of the system to see what happens.]

The Basics

Gaining Access to a Remote System

Hackers can have many tasks: steal data, delete files, alter database entries etc. All these tasks however, only describe the second part of the hacking process: what the hacker needs to do once he is inside a remote system. The first part of the process, ie getting inside the remote system, remains the same regardless of the task at hand. Invariably, the hacker must log on the remote system and then successfully circumvent the authentication verifying mechanism of it.

[To gain access to a remote system, the hacker must first take a log on action, to establish a connection to the system, and then succeed in a bypass authentication action.]

Locating the Target Data

Many remote systems contain a huge amount of data and the hacker is usually interested in only a very small por-

Color	Security	Purchase DC
Green	15	15
Yellow	20	22
Cyan	25	28
Indigo	30	37
Red	35	48
Black	40	60

Security Tables

	Code Green	Code Yellow	Code Cyan
1	System sweep	System sweep	System sweep
2	System sweep	System sweep	System sweep + connection logged
3	System sweep	Connection logged	Connection logged + access denied
4	Connection logged	Connection logged	Authentication required
5	Connection logged	Access denied	Authentication required + connection logged
6	Access denied	Access denied	Trace initiated
7	Access denied	Authentication required	Trace initiated + connection logged
8	Authentication required	Trace initiated	Disruptor drone activated
9	Trace initiated	Authentication required + tracer initiated	Disruptor drone activated + trace initiated
10	Trace initiated	Disruptor drone activated	Administrator alert + trace initiated
11	Administrator alert	Administrator alert + trace initiated	Administrator alert + trace initiated
12	Disconnected	Disconnected	Disconnected
	Code Indigo	Code Red	Code Black
1	System sweep + connection logged	System sweep + connection logged + access denied	Retroactive tracer initiated + connection logged + authentication required
2	Connection logged + access denied	Retroactive tracer initiated	Retroactive tracer initiated + connection logged + authentication required
3	Access denied + authentication required	Disruptor drone activated + retroactive tracer initiated	Retroactive tracer initiated + connection logged + access denied + authentication required
4	Retroactive tracer initiated	Destroyer drone activated + retroactive tracer initiated	Retroactive tracer initiated + connection logged + access denied + authentication required
5	Disruptor drone activated + retroactive tracer initiated	Destroyer drone activated + retroactive tracer initiated	Destroyer drone activated + retroactive tracer initiated + administrator alert
6	Disruptor drone activated + retroactive tracer initiated	Retroactive tracer initiated + access denied	Destroyer drone activated + retroactive tracer initiated + administrator alert
7	Destroyer drone activated + retroactive tracer initiated	Retroactive tracer initiated + authentication required	Destroyer drone activated + retroactive tracer initiated + administrator alert
8	Destroyer drone activated + retroactive tracer initiated	Administrator alert + retroactive tracer initiated	Killer drone activated + retroactive tracer initiated + administrator alert
9	Retroactive tracer initiated + access denied	Administrator alert + retroactive tracer initiated	Killer drone activated + retroactive tracer initiated + administrator alert
10	Administrator alert + retroactive tracer initiated	Killer drone activated + retroactive tracer initiated	Killer drone activated + retroactive tracer initiated + administrator alert
11	Disconnected	Disconnected	Disconnected
12	Disconnected	Disconnected	Disconnected

[Access denied: The system temporarily blocks all access. The hacker cannot take any action in the system for d6 rounds.]

[Access denied: The system temporarily blocks all access. The hacker cannot take any action in the system for d6 rounds.]

[Administrator alert: The system's administrator is alerted to the presence of an intruder and coordinates security measures against him more effectively. This has the following effects: 1. Halve the time required for any trace already in progress or any trace initiated in the future until the hacker logs off or is disconnected, 2. Any system sweep inflicts a -10 penalty instead of -5, 3. Any drone activated gets a +2 bonus to its attack roll.]

[Authentication required: Access is denied to the hacker and the system requires him to verify his authentication again. This obstacle must be overcome by taking a successful bypass authentication action before the hacker can proceed with his task.]

[Connection logged: The hacker's attempted action is logged twice instead of just once. This creates an additional log for him to cope with.]

[Destroyer drone activated: A destroyer drone engages the hacker in hivenet combat. Destroyer drones are detailed in the software section.]

[Disconnected: The hacker's connection to the remote system is immediately terminated. If he still wants to have a try at infiltrating the system, he has to begin again from the start.]

[Disruptor drone activated: A disruptor drone engages the hacker in hivenet combat. Disruptor drones are detailed in the software section.]

[Killer drone activated: A killer drone engages the hacker in hivenet combat. Killer drones are detailed in the software section.]

[Retroactive trace initiated: Retroactive traces have been designed to defeat hacking attempts made from a constantly changing location (ie by hackers that are on the move using a satellite link to connect to the hivenet). This works exactly like a normal trace, but as soon as the trace is complete the remote system sends a small file to be installed in the hacker's computer. Thereafter, each time the hacker connects to the hivenet (not necessarily logging on the same system), the installed tracer reports his location to the system administrator. The tracer file is minute in size and doesn't take up any memory, speed slots or bandwidth. A retroactive trace will be detected by a trace monitor as a normal trace. If the hacker suspects that a retroactive tracer has been placed in his computer, he may find it by taking a system scan action.]

[System sweep: The system detects suspicious activity and initiates a full sweep. This makes the hacker's job more difficult, inflicting a -5 penalty on his next Computer Use check.]

[Trace initiated: The remote system attempts to trace the hacker's connection back to his physical location. The hacker won't be aware that he's being traced unless he uses an active trace monitor. Once a trace is initiated, it can't be stopped unless the hacker disconnects from the hivenet. Each new "trace initiated result" will decrease the time required for the trace to be completed by d6 rounds. A trace usually takes d6 rounds to be completed, but if the hacker has "bounced" his connection, an additional d6 rounds per bounce are required. Once the trace concludes, the system (and its administrators) becomes aware of the hacker's physical location (ie the place from which he connects to the hivenet).]

tion of them, so finding his target may be a time-consuming process. Knowledge of the name of the file being sought or its contents can cut down the time required to locate it.

[Locating the target data requires the hacker to take a successful locate data action.]

with the delete log action. If the hacker doesn't erase all logs he produced, then it will be clear to the system administrator that someone successfully infiltrated the system. The logs can be analyzed to gain further information by taking the analyze logs action.]

Deleting Logs

Every action taken by a hacker in a remote system is logged by the system and these logs are proof that someone has trespassed in the system and can be used to trace the hacker to his physical location. Good hackers always take care to erase any signs of their infiltration by deleting these logs. Sometimes however, a hacker doesn't have the time required to clear all logs produced by his actions, either because of poor planning or due to an unexpected turn of events. In this case, the number of the remaining logs is the main factor that determines the quality and quantity of info a security expert gains by analyzing them.

[Every action taken by the character in a remote system, whether successful or not, creates one log, except from the network attack, full network attack, log off and delete log action which don't create any logs. Logs can be erased

Bouncing your Connection

One of the greatest fears all hackers have is to be traced back to their physical location and have the police pay them a social visit. A classical trick used to avoid being traced or at least make the trace attempts more difficult is to "bounce" the connection among multiple nodes before connecting to the target system. For example, if your target is the system of the PharmaTek corporation, you can first bounce your connection to Galt Industries, then to the National Library and finally to PharmaTek. Bouncing your connection effectively inhibits tracers, but increases the lag and the security monitors you have to cope with.

[An attempt to trace you is usually concluded within d6 rounds if you connect directly to the target system. For each "bounce" you add, the time required for a trace increases by d6 rounds, but you suffer a -1 penalty to all Computer Use checks.

COMPUTER ACTIONS

Nearly anything important a character can attempt with a computer can be described with one of these actions (or a combination of them).

Alter Record

[This action is taken to alter the contents of a database entry. It is a full-round action when using a somatic interface or a move action when using a neural interface. In a system you have infiltrated you are required to succeed in a Computer Use (database manipulation) check against a DC equal to the system's Security level.]

Analyze Logs

[This action is taken to analyze the logs left behind by a careless hacker. A Computer Use (infiltration) check is made, with the DC varying according to the number of logs available for analysis. If you don't have legitimate access to the system where the logs are contained, your check result must beat the system's Security level else the analysis fails.]

Available Logs	Analysis DC
6+	5
5	10
4	15
3	20
2	25
1	30

[With a successful check, you realize what the hacker was trying to do (eg what file was he seeking to copy or what database entry he wanted to alter). If the check result exceeds the DC by 10 or more points, the logs can be used to trace the hacker back to his physical location (at least at the time he performed the hack).]

[Log analysis takes 10 minutes per available log.]

Bypass Authentication

[This action is taken by a hacker to bypass the authentication verification needed to access a secure system after logging on to it. It requires a number of rounds (per attempt made) equal to half the system's Security level if you are using a somatic interface or equal to Security divided by 5 if you are using a neural interface (eg the authentication of a system with Security level 25 takes 12 rounds to bypass using a somatic interface or 5 rounds with a neural interface). A successful Computer Use (infiltration) check is also needed (the DC is equal to the system's Security level).]

Control Slave

[This action is taken to do something with a device slaved to the computer system you're logged on. For example, you can open or close an automatic door, deactivate a security scanner or turn a camera the other way. If you don't have legitimate access to the system, you have to succeed in a Computer Use (network manipulation) check against a DC equal to the system's Security level.]

[If you want to accomplish complex things with the slaved device, like for example program coordinates in a missile, launch it and override its self-destruct mechanism, you have to take multiple actions with each accomplishing a small part of the greater action. The Gamemaster determines exactly how many separate actions are required by breaking down the task in small identifiable parts. The above example with the missile would most likely require 2 separate actions.]

[Control slave is a move action with a neural interface or a full-round action with a somatic interface.]

Create Backdoor

[This action is taken to create a breach in the system's security that enables you to access the system at a later time without proper authorization. Opening a backdoor requires you to have already accessed the system and takes a variable amount of time depending on the sys-

Action	Effect	Related Specialty	Time Required
Alter record	Alters the contents of a database entry	Database manipulation	Full-round (somatic) or Move (neural)
Analyze logs	Gains info on a hacker from logs of his actions	Infiltration	Varies
Bypass authentication	Access a secure site	Infiltration	Security: 2 rounds (somatic) or Security: 5 rounds (neural)
Control slave	Controls a device slaved to a computer system	Network manipulation	Full-round (somatic) or Move (neural)
Create backdoor	Leaves a backdoor in a remote system	Infiltration	Varies
Create record	Creates a new entry in a database	Database manipulation	Full-round (somatic) or Move (neural)
Decrypt file	Makes an encrypted file accessible without the password	Cryptography	Varies
Delete file	Irrevocably deletes a file from a system	File manipulation	Move
Delete log	Deletes a security log from a remote system	Infiltration	Attack (somatic) or Move (neural)
Delete record	Deletes an entry from a database	Database manipulation	Attack (somatic) or Move (neural)
Encrypt file	Makes a file inaccessible without a password	--	Varies
Full network attack	Multiple attacks	Network assault	Full-round
Global search	Searches the hivenet for information	Datasearch	Varies
Load program	Makes a program active	--	Move (somatic) or Free (neural)
Locate data	Locates a particular file or database entry in a system	Datasearch	Varies
Locate user	Detects the id key of a user or locates him in the hivenet	Network manipulation	Varies
Log off	Disconnects from a remote system	--	Move (somatic) or Free (neural)
Log on	Connects to a remote system	--	Move (somatic) or Free (neural)
Network attack	Attacks another user	Network assault	Attack
Network scan	Scans a system for logged-on users	Network manipulation	Varies
Receive file	Initiates the copying of a file from a remote system to your computer	File manipulation	Move (somatic) or Free (neural)
Scan system	Detects dangerous files like backdoors, tracers or viruses	File manipulation	Varies
Trace user	Initiates a trace	Network manipulation	Full-round (somatic) or Move (neural)
Transmit file	Initiates the copying of a file from your computer to a remote system	File manipulation	Move (somatic) or Free (neural)
Unload program	Removes a program from active memory	--	Move (somatic) or Free (neural)
Use program	Use an active program	--	Varies

tem's security. You also need to succeed in a Computer Use (infiltration) check against a DC equal to the system's Security level. Once created, a backdoor enables you to access the system at any later time without having to take a bypass authentication action.]

[Secure systems usually run scans once in a while to detect and remove backdoors. The frequency and efficiency of these scans depend on the quality of the system's security. Usually, the system makes a scan check

(d20 + a scan bonus) and detects the backdoor if the result exceeds your Computer Use check result. Backdoors are automatically detected if you leave a system without first deleting the logs of your actions. Any backdoor detected is removed.]

[If you want to search your computer for backdoors left there by others, you should take the system scan action.]

Security	Time Required	Frequency	Scan Bonus
Green	d3 rounds	1 per month	+3
Yellow	d4+1 rounds	1 per 15 days	+5
Cyan	d6+1 rounds	1 per week	+8
Indigo	d8+2 rounds	1 per 3 days	+10
Red	d10+4 rounds	1 per day	+12
Black	2d6+6 rounds	2 per day	+15

Create Record

[This action is taken to create a new entry in a database. It is a full-round action when using a somatic interface or a move action when using a neural interface. In a system you have infiltrated you are required to succeed in a Computer Use (database manipulation) check against a DC equal to the system's Security level.]

Decrypt File

[This action is taken to decrypt an encrypted file, making its contents accessible even if you don't know the proper password. Because encryption algorithms are horribly complicated, you need to use a decryption program. Unlike encryption, which is done by the program, decryption requires your active input and so you need to succeed in a Computer Use (cryptography) check to successfully decrypt a file. The DC and time required is found in the details for decryptor programs.]

Delete File

[This action is taken to irrevocably delete a file from a system. This isn't as simple as it sounds. A file that is simply deleted is very easy to recover. By taking this action however, you fill up the space assigned to the deleted space with garbage data, thus making it unrecoverable. This is not as fast as simple deletion and needs some time to be completed. You can delete up to 5 storage memory slots of files (or 5 slots from one large file) by taking a move action with a somatic interface or 10 memory slots of files with a neural interface.]

[You can freely delete files from your own computer or from a remote system you have legitimate access to. If you have infiltrated a remote system, you must make a Computer Use (file manipulation) check against a DC equal to the system's Security level for your delete file

action to be successful.]

Delete Log

[This action is taken by a hacker to delete the logs of his actions in a secure system he has infiltrated. Deleting a log is an attack action if using a somatic interface or a move action if using a neural interface and requires a successful Computer Use (infiltration) check against a DC equal to the system's Security level. Usually one log is deleted, but for every 5 points your check result exceeds the DC you manage to delete an additional log.]

Delete Record

[This action is taken to delete a database entry. It is an attack action when using somatic interface or a move action when using a neural interface. In a system you have infiltrated you are required to succeed in a Computer Use (database manipulation) check against a DC equal to the system's Security level.]

Encrypt File

[This action is taken to encrypt a file so that its contents are impossible to access without knowledge of the proper password. You need to use an encryption program (of any grade). Encryption is done automatically by the program, but usually requires some time (this is explained in the details for encryption programs).]

Full Network Attack

[This action resembles network attack, but allows you to make multiple attacks in the same round. To use it, you must be using a neural interface, have 5 or more ranks in Computer Use and own the network assault specialty. You can then make up to one extra attack per 5 ranks in Computer Use by "splitting" your attack bonus between them. This is always a full-round action.]

Global Search

[This action is taken to search the hivenet for information on a particular topic. To find anything useful, you have to succeed in a Computer Use (datasearch) check. The DC, as well as the time required for the search, depends on how narrow the search is, although using a neural interface halves the time needed.]

Subject	DC	Time Required
Very broad	20	d10 turns
Broad	15	d3 turns
Narrow	15	d10 rounds
Very narrow	10	d3 rounds

Estimated Size	Multiplier
Typical computer contents	x1
Small company data	x2
Large corporation data	x3
Megacorporation data	x4
Government agency data	x5

Load Program

[This simple action is used to load a program from storage memory to active memory, making it active. It is a move action with a somatic interface or a free action with a neural interface. Your computer needs to have enough free speed and active memory slots to meet the program's requirements.]

[Success is guaranteed if the system you search is a public one or you have legitimate access to it. If you want to search a system you've infiltrated, you first have to succeed in a Computer Use (data search) check against a DC equal to the system's Security level. If you fail, you only waste one round and can try again.]

Locate Data

[This action is used to locate a particular file or database entry in your computer or a remote system you have accessed. Although eventually any search will result in a success, the time it requires depends on the amount of data stored in the system and the information you have on the target data (the more refined your search is, the fastest it will be concluded). To calculate the time needed for a search to result in success, first determine the base time depending on the available information you have on the target data.

Available Info	Base Time
Approximate file size; type of file or data	d 8 rounds
Date file was created, last modified; part of the filename; the group or project	d 6 rounds
Specific file size; most of the filename; the owner of the data	d 3 rounds
Exact filename	1 round

[Then, multiply the base time by a number produced by the estimated amount of data stored in the system. Using a neural interface halves the required time (to a minimum of one round).

[Example: A search to locate the personal journal of the head researcher of the PharmaTek megacorporation takes d3x4 rounds (the owner of the data is known, the system holds all of a megacorporation's data.)

Locate User

[This action is taken to determine the identification key of another user or to locate him in the hivenet by his identification key. The identification key is a unique number assigned by the hivenet to every machine connected to it, in order to identify it as part of the world wide network. Computers that are constantly connected to the hivenet (like those of a corporation) are assigned a permanent key. Computers that connect part-time (like most personal computers) are assigned a random key each time they connect to the hivenet.]

[Learning a user's identification key: As a move action (if using a somatic interface) or a free action (if using a neural interface), you can learn the identification key of another user. The other user must be connected to the same system as you are and you must be aware of him. You can then use the identification key to track his location in the hivenet if he logs off from the system. Note that if he disconnects from the hivenet, he will get a new identification key the next time he connects.]

[Locating the user in the hivenet: If you know the identification key currently used by someone, you can find to which system he is currently logged on by engaging in a global search using his key to guide you. Although this is simple and doesn't require any skill check, it does take some time—4d6 rounds, half when using a neural interface. The search won't reveal anything if the user has disconnected from the hivenet.]

Log Off

[This simple action is taken to disconnect from a remote system, canceling the hivenet connection between the system and your computer (although you remain connected to the hivenet, unless of course you want to “pull the plug” completely). Log off is a move action when using a somatic interface or a free action when using a neural interface. However, you can’t log off a system in the same round you have logged on to it.]

Log On

[This simple action is taken to connect to a remote system through the hivenet. If the system is a public server, you can browse its contents. Logging on a secure system must be followed by a bypass authentication action to gain access into the system. Log on is a move action when using a somatic interface or a free action when using a neural interface.]

Network Attack

[This action is taken to make a single attack against a target in the same node as you are. You must be aware of the target’s presence and use an active attack program. Network attack is always an attack action.]

Network Scan

[This action is taken to search a system for any user present at the time. The time needed for a network scan depends on the size of the system scanned; use the following table to determine the time needed based on an estimate of the system. Using a neural interface halves the time needed (to a minimum of one round).]

System Size	Time Required
Personal Computer	1 round
Small corporation network	d3 rounds
Large corporation network	d6 rounds
Megacorporation/government agency network	d8 rounds

[Once concluded, a network scan will reveal all users present in the system who don’t wish to conceal their presence. Users who want to conceal their presence (like hackers) are only revealed to you if they lose in an opposed check (you roll Computer Use (network manipula-

tion, they roll Computer Use (infiltration); you only roll once then compare your check result with that of any hidden user in the system. Once a user is revealed to you, he remains that way until he logs off the system.)]

[If you attempt to run a network scan on a system you don’t have legitimate access to, your Computer Use (network manipulation) check result needs to be equal to or higher than the Security level of the system. If it isn’t, the action fails and the system takes measures against you as in the case of any failed Computer Use check.]

Receive File

[This action is taken to receive a file located in a computer linked to your own or in a remote system accessed through the hivenet. It is a move action using a somatic interface or a free action using a neural interface. The action is taken only to initiate the transference. The time required for the file to be transferred depends on the bandwidth allocated to it (if receiving through the hivenet) or the data exchange rate of the port used to link to another computer. Canceling the reception of a file in progress or altering the bandwidth or data exchange rate allocated to it requires you to take another transmit file action.]

[You can freely receive files from non-secure systems or from secure systems you have legitimate access to. To receive from a secure system you have infiltrated, you must succeed in a Computer Use (file manipulation) check with DC equal to the system’s Security level.]

System Scan

[This action is taken to detect dangerous files on your computer, like viruses, tracers and backdoors. A system scan takes some time to perform; for every speed slot you assign to the scanning process you can scan one slot of storage memory per 10 minutes. A system scan is completed when all storage memory slots in use are scanned. At that time, you make a Computer Use (file manipulation) check to see how effective your scan has been. You only make a single check, then compare its result to the DC needed to detect every dangerous file on your computer.]

[Backdoors: The DC to detect a backdoor is equal to the Computer Use (infiltration) check result of the person who placed the backdoor. A detected backdoor can be automatically removed.]

[Tracers: The DC to detect a retroactive tracer is 20. A detected tracer can be automatically removed.]

[Viruses: The DC to detect a virus is equal to its Stealth level. A detected virus can be automatically removed, but some viruses may have inflicted irreversible damage.]

Trace User

[This action is taken to trace a user to his physical location through his connection. The target user must be in the same system as you are and you need to be aware of his presence. The trace is initiated by taking a full-round action (if using a somatic interface) or a move action (if using a neural interface); it will proceed on its own from there on. To initiate a trace, you also need to succeed in a DC 20 Computer Use (network manipulation) check; if your check result is over 30 you halve the time needed for the trace to conclude.]

[Once a trace is initiated, the only way to be stopped is for the target user to log off the system, although he will only know he's being traced if he has an active trace monitor. A trace will be completed in d5 rounds if the target has connected directly to the system; if he has "bounced" his connection the time needed increases by d6 rounds per bounce. Once the trace is completed, you learn the place from which the user connects to the hivenet. Retroactive traces may be used against those who use mobile connections (like satellite links).]

Transmit File

[This action is taken to transmit a file located in your computer either to a linked computer or to a remote system through the hivenet. It is a move action using a somatic interface or a free action using a neural interface.

The action is taken only to initiate the file's transmission. The time required for the file to be transmitted depends on the bandwidth allocated to it (if transmitting through the hivenet) or the data exchange rate of the port used to link to another computer. Canceling a file transmission in progress or altering the bandwidth or data exchange rate allocated to it requires you to take another transmit file action.]

[You can freely transmit files to non-secure systems or to secure systems you have legitimate access to. To transmit to a secure system you have infiltrated, you must succeed in a Computer Use (file manipulation) check with DC equal to the system's Security level.]

Unload Program

[This simple action is used to remove a program from active memory, making it inactive. It is a move action with a somatic interface or a free action with a neural interface. The speed and active memory slots assigned to the program are freed.]

Use Program

[This action is taken to use a program. The program must already be active (loaded in active memory). The time it requires depends on the program's function. Alternatively, this action can also be used to modify the speed or active memory slots assigned to the program. This takes a move action (using a somatic interface) or a free action (using a neural interface). You cannot decrease the slots assigned to a program beneath its minimum requirements.]

[Note that many programs function automatically without requiring you to take this action.]

PROGRAMMING

[Most of the programs detailed in this sourcebook can be coded by a competent programmer, saving him from the cost of purchasing them or the trouble of finding them in the case of restricted or illegal programs. An already existing program can also be upgraded to a better, more efficient version. Both tasks make use of the Computer Use (programming) skill.]

[Write a program: To create a program from scratch, you must succeed in a Computer Use (programming) skill check. The Programming DC is given individually for each program. A successful skill check enables you to complete the program in a number of programming hours equal to its Purchase DC x 10. If the skill check is failed, you waste one-third of the time required to complete the program before you realize you're not getting anywhere. When creating a program from scratch,

you always end up with a grade 1 program; you can then improve it using the upgrade program task.]

[Upgrade program: By improving and streamlining the code of an existing program, you can make it more reliable, improve its performance, even add new features. Upgrading a program usually takes less time than writing it from scratch, but is also more difficult in many occasions. Upgrading a program is handled exactly like creating one from scratch, except that the program's current grade is added to the Programming DC and the time required is halved. If the skill check is successful, the program's grade increases by one, up to the maximum available for that kind of programs. You can take the upgrade task as many times as you want, possibly bringing a program from grade 1 to the maximum available grade. Programs without grades cannot be upgraded.]

SOFTWARE

Backdoor

This highly illegal security crack program is used to set up a backdoor tailored to the system a hacker has infiltrated.

[While active, a backdoor program will add its grade as a software bonus to any skill check made for the create backdoor action. Moreover, the time required to place the backdoor is reduced by one round per grade (to a minimum of one round).]

Decryptor

A decryptor program is used to attack and break an encryption algorithm. Because there is no set method to break modern encryption, the use of a decryptor is both difficult and time-consuming, requiring a great deal of input by the user. The availability of decryptor programs is strictly regulated by the government; possession by citizens is illegal since decryptors are classified as weapons.

[A decryptor is used with the decrypt file action to access an encrypted file without knowledge of the password. A decryptor first must be custom-programmed according to the unique encoding pattern of the file to be decrypted. This usually takes one day per grade of the encryptor used to encode the file and requires a successful Computer Use (cryptography) check; if the check result exceeds the DC by 5 or more points, the time required to program the decryptor is halved. Once successfully programmed, a decryptor works on its own.]

[The DC of the Computer Use (cryptography)

check and the rate at which the file is decrypted is found by comparing the grade of the decryptor to the grade of the encryptor on the related table. You can increase the decryption rate by assigning more speed slots to the decryptor. For each extra speed slot, increase the rate by one storage memory slot.]

Destroyer

Destroyers are attack programs that target hardware by overriding a computer's control over its circuits and causing catastrophic power surges.

[Destroyers inflict damage using the destroyer damage table. Their grade determines their damage dice.]

Grade	Damage
1	d8
2	d10
3	2d6
4	2d8
5	2d10

Dbase Tools

This set of tools makes the use of databases faster and more efficient.

[While active, dbase tools add their grade as a software bonus to any skill check made for the alter, create and delete record actions.]

	Encryptor, grade 1	Encryptor, grade 2	Encryptor, grade 3	Encryptor, grade 4	Encryptor, grade 5
Decryptor, grade 1	DC 20, 1 slot/day	DC 25, 1 slot/week	DC 30, 1 slot/15 days	DC 35, 1 slot/month	DC 40, 1 slot/3 months
Decryptor, grade 2	DC 15, 1 slot/6 hrs	DC 20, 1 slot/day	DC 25, 1 slot/week	DC 30, 1 slot/15 days	DC 35, 1 slot/month
Decryptor, grade 3	DC 10, 1 slot/hour	DC 15, 1 slot/6 hrs	DC 20, 1 slot/day	DC 25, 1 slot/week	DC 30, 1 slot/15 days
Decryptor, grade 4	DC 10, 1 slot/10 min	DC 10, 1 slot/hour	DC 15, 1 slot/6 hrs	DC 20, 1 slot/day	DC 25, 1 slot/week
Decryptor, grade 5	DC 10, 1 slot/min	DC 10, 1 slot/10 min	DC 10, 1 slot/hour	DC 15, 1 slot/6 hrs	DC 20, 1 slot/day

Digital Armor

This group of defensive programs use a variety of algorithms and screens to disrupt attack signals. Although each functions in a different way, they all serve the same purpose: protect the user from attack programs.

[While a digital program is active, its grade is added as a software bonus to Defense in the hivenet.]

Discology

This program consists of several utilities handling file tasks, including copying, deleting, renaming etc, which free up the user's hands and allows him to deal with more important tasks.

[While active, a discology program will add its grade as a software bonus to any skill check made for the delete, receive and transmit file actions.]

Disruptor

Disruptors are attack programs that disrupt comm lines and can delete files or block access to memory.

[Disruptors inflict damage using the disruptor damage table. Their grade determines their damage dice.]

Grade	Damage
1	d8
2	d10
3	2d6
4	2d8
5	2d10

Drone

Drones are the fear of all hackers. These programs are automated security & combat software platforms sent by a security systems to attack infiltrators. They use the same technology as attack programs, so they are divided into disruptor, destroyer and killer drones. However, they also incorporate intelligent coding to track and assault intruders and defenses to resist their attacks, making them truly sophisticated pieces of software.

[Drones are an integral part of many secure computer systems and they appear to assault an intruder whenever a "drone activated" result is rolled on a security table. They are persistent and will attack an intruder until he logs off the system or they are destroyed.]

[Each drone has its own attack bonus, initiative modifier and Defense. They have a damage rating and use the damage table appropriate to their type (disruptor, destroyer or killer). They also have an Armor level, which determines how well they resist attacks made against them.]

d20 roll	Drone (disruptor)
1-4	Init +0, Atk +2, Def 14, Dmg d8, Armor 4
5-8	Init +2, Atk +4, Def 15, Dmg d10, Armor 5
9-12	Init +4, Atk +6, Def 18, Dmg 2d6, Armor 7
13-15	Init +6, Atk +8, Def 20, Dmg 2d8, Armor 8
16-18	Init +6, Atk +9, Def 21, Dmg 2d8, Armor 8
19-20	Init +8, Atk +12, Def 24, Dmg 2d10, Armor 10
d20 roll	Drone (destroyer)
1-4	Init +2, Atk +4, Def 16, Dmg, d8, Armor 5
5-8	Init +4, Atk +6, Def 18, Dmg d10, Armor 6
9-12	Init +6, Atk +8, Def 20, Dmg 2d6, Armor 8
13-15	Init +8, Atk +10, Def 22, Dmg 2d8, Armor 10
16-18	Init +8, Atk +11, Def 23, Dmg 2d8, Armor 10
19-20	Init +10, Atk +14, Def 26, Dmg 2d10, Armor 12
d20 roll	Drone (killer)
1-4	Init +4, Atk +6, Def 18, Dmg 2d6, Armor 5
5-8	Init +6, Atk +8, Def 20, Dmg 2d6+2, Armor 6
9-12	Init +8, Atk +10, Def 22, Dmg 2d8, Armor 8
13-15	Init +10, Atk +12, Def 24, Dmg 2d8+2, Armor 10
16-18	Init +10, Atk +13, Def 25, Dmg 2d8+2, Armor 10
19-20	Init +12, Atk +16, Def 28, Dmg 2d10, Armor 12

[Drones don't suffer damage as computer systems do. When an attack against a drone is successful, make a damage roll adding +2 if using a destroyer or killer program and compare the result to the drone's Armor. If it's greater than the drone's Armor, the drone is destroyed. In any other case the drone is unharmed.]

[Drones don't have a Purchase DC and don't take up active memory, storage memory or speed slots, since they are an integral part of a computer's security system. You can use the drones table to randomly generate a drone each time an intruder activates one.]

Encryptor

An encryptor encodes files or other forms of data so that they can't be accessed without the proper password. Modern encryption uses advanced cryptographic algorithms that are very hard to break, although even the best encryption is in danger of being broken by someone skilled in cryptography with access to fast computers and efficient software.

[By taking the encrypt file action with an encryptor, you can encrypt a file. The program works automatically, but needs some time to complete the encryption of the data. An encryptor can encode one storage memory slot worth of data per round; for every additional speed slot assigned to the program beyond its minimum requirements this rate is increased by one slot per round. After the encryption is complete, the data encrypted can only be accessed by someone knowing the password you've set. The grade of an encryptor determines the difficulty of any attempt made to break the encryption.]

File Scanner

This program specializes in quick file scanning to locate data matching the keywords inserted by the user. It is "intelligent" enough to recover data similar but not identical to the provided keywords, thus broadening the results obtained.

[While active, a file scanner adds its grade as a software bonus to all skill checks made for the locate data action. Moreover, a file scanner will reduce the time required for the search to be concluded by 2 rounds per grade (to a minimum of one round).]

Houndbot

This simple program is sent to "hunt" information on the hivenet, using intelligent search algorithms to find the maximum possible results as well as sort them out according to their relevance.

[While a houndbot is active, it adds its grade as a software bonus to any skill check made for the global search action. Moreover, the time required is reduced by one round per grade (to a minimum of one round).]

ID Scanner

This program automates the process of extracting a user's ID key and using it to locate him in the hivenet.

[While active, an id scanner adds its grade as a software bonus to any skill check made for the locate user action. Furthermore, the time required to locate someone in the hivenet using his id key is reduced by 2 rounds per grade (to a minimum of one round).]

Killer

Killers are attack programs that mostly function like destroyers, but can also turn a nanocomputer against its user, inflicting severe harm on his brain.

[Killers inflict damage using the killer damage table. Their grade determines their damage dice.]

Grade	Damage
1	2d6
2	2d6+2
3	2d8
4	2d8+2
5	2d10

Lockpick

This highly illegal program is used to detect weak spots in a remote system, assisting a hacker in the difficult task of accessing it.

[While a lockpick is active, it adds its grade as a software bonus to any skill check made for the bypass authentication action. Moreover, the time required is reduced by one round per grade (to a minimum of one round).]

Log Analyzer

This program assists a security expert to perform an extensive analysis of the logs left behind by a hacker and extract every tiny bit of information from them.

[While active, a log analyzer will add its grade as a software bonus to any skill check made for the analyze logs action. Furthermore, the time required to process the logs is divided by the program's grade.]

Log Deleter

This program assists a hacker in erasing his trails after he successfully hacks a remote system.

[While active, a log deleter will add its grade as a software bonus to all skill checks made for the delete log action.]

Network Mask

This program, extensively utilized by hackers, is used to mask someone's connection signal, thus making him harder to detect in a network.

[While active, a network mask adds its grade as a software bonus to any Computer Use (infiltration) check made to resist being detected by a network scan action. Additionally, the program adds dB rounds to the time required to locate you in the hivenet using the locate user action.]

Network Scanner

This program automates to a great extent the process of scanning a computer system for logged-on users and uses specialized algorithms to detect hidden users.

[While active, a network scanner adds its grade as a software bonus to any skill check made for the network scan action.]

Retroactive Tracer

This specialized program is an advanced type of tracer that can even defeat mobile hackers (those using a satellite link to make a hack while on the move). It does this by embedding an extremely small, very difficult to detect, file in the target's computer, which sends a signal back to you whenever the target is connected to the hivenet.

[A retroactive tracer works as a normal tracer program, with the following additions. As soon as the trace is com-

plete, a small file is installed in the target's computer. Thereafter, each time the target connects to the hivenet (not necessary logging on the same system), the installed tracer transmits his location to you. The tracer file is minute in size and doesn't take up any memory, speed slots or bandwidth. A retroactive tracer will be detected by a trace monitor as a normal trace. The target can only detect and remove a retroactive tracer by taking the system scan action.]

Tap Detector

This program monitors the signal of a cable port or an optic cable hivenet connection and can detect anomalies caused by dataline taps placed to "eavesdrop" on the data passing through the cable. It cannot, however, detect an induction jack, as it doesn't interfere with a cable's signal. [A tap detector must be used from a computer connected to the cable where a tap has been placed. By taking the use program action, you can detect any dataline tap placed along the cable. This requires one turn of monitoring and succeeding in a Computer Use (network manipulation) check with DC 20. The tap detector's grade is added as a software bonus to this check.]

Threat Scanner

This program is used to scan a system for the existence of dangerous files, like backdoors, retroactive tracers or viruses.

[While a threat scanner is active, it adds its grade as a software bonus to any skill check made for the system scan action. Moreover, the time required for a system scan to be completed is divided by the program's grade (to a minimum of one round).]

Trace Monitor

A must for any serious hacker, this extremely useful program informs the user if there is a trace on his location in progress. Higher quality monitors can also give an estimate on the time remaining before a trace will be completed.

[An active trace monitor will automatically detect any trace initiated on you. A grade I monitor will only display that a trace is in progress, but not the time remaining before it is concluded. Higher grade monitors display the time remaining before the trace is completed, but usually

have an error margin. To determine the deviation from the true time remaining, roll a d10 and consult the following table. On an odd roll, add the deviation result to the true time remaining. On an even roll, subtract the deviation result from the true time remaining (to a minimum of one round).]

Trace Monitor Grade	Deviation
2	+/- 2d6 rounds
3	+/- d6 rounds
4	+/- d3 rounds
5	+/- 1 round

Tracer

This is a specialized security program designed to help a user in tracking another user through his hivenet connection to his physical location.

[While a tracer is active, it adds its grade as a software bonus to any skill checks made for the trace user action.]

Virus

Viruses are tiny programs made for a single purpose: to spread havoc in computer systems. Their name is derived by the fact that they have many things in common with biological viruses: they are hard to detect, they "multiply" by copying themselves on other systems, thereby infecting them, and they "live" as parasites in a computer system, utilizing its resources until the whole system is brought to its knees. Much like biological viruses, they range from the relatively harmless (those that are more of a nuisance than a real threat) to the deadly (those that corrupt data or even destroy hardware).

[Each virus has a Stealth level, an Effect and an Incubation. Its Stealth level is the DC of any system scan action made to detect the virus. A virus' Effect is the harmful result it has on a computer system it has infected. Its Incubation is the time required after the infection for the virus' Effect to appear.]

[A virus is so small that it doesn't take up any

Virus	Programming DC	Incubation	Stealth	Effect(s)
655	25	d3 days	20	Hardware destruction d10 per 12 hours
658	27	2d10 hrs	20	Hardware destruction d10 per 12 hours
Agatha	20	d4 days	18	Disruption +5
Alphazoid	24	d3 days	25	Data corruption 1 memory slot per 12 hours, Disruption +5
Anderson's folly	31	2d10 hrs	24	Disruption +5, Hardware destruction 2d8 per day
Ballistax	26	d3 days	22	Data corruption 1 memory slot per 12 hours, Hardware destruction d10 per day
Betazoid	26	2d12 hrs	25	Data corruption 1 memory slot per 12 hours, Disruption +10
Black emperor	27	2d8 hrs	22	Hardware destruction d10 per day, Disruption +10
Cambridge flu	25	d2 days	24	Data corruption 1 memory slot per 12 hours, Disruption +5
Canceroid	25	d6 days	28	Data corruption 1 memory slot per 12 hours
Centurion 2	23	d3 days	22	Data corruption 1 memory slot per 12 hours
Corpbuster	26	d12 hrs	25	Data corruption 1 memory slot per 6 hours
Fireworm	21	d3 days	20	Disruption +10
Flavius	23	d2 days	20	Disruption +15
General ludd	34	d6 hrs	25	Hardware destruction 2d10 per 12 hours
Hayden	27	2d4 hrs	22	Hardware destruction d10 per day
Hiveflu	21	d6 days	20	Disruption +10
Krammick	26	d6 hrs	20	Data corruption 1 memory slot per day, Disruption +10
Predatorz	25	d2 days	24	Disruption +5, Hardware destruction d8 per day
Red emperor	26	2d8 hrs	22	Data corruption 1 memory slot per 12 hours, Disruption +10
Silent crawler	25	d4 days	28	Disruption +15
TRX6A	23	d4 days	24	Disruption +10
TRX8A	24	d4 days	24	Data corruption 1 memory slot per day, Disruption +10
W6V5Z	23	d2 days	20	Hardware destruction d8 per day
White snake	21	d3 days	20	Data corruption 1 memory slot per day
Yellow goblin	28	d8 hrs	30	Disruption +15

active memory, storage memory or speed slots. It masquerades itself by hiding inside the code of other programs and files in the computer. A computer is infected by a virus when it receives a program or file containing the virus. Thereafter, whenever this computer sends a file to another system, that system is also infected by the virus.]

[To remove a virus from a system, the user must first detect the virus with the system scan action (DC equal to the virus' Stealth level). If the virus is detected, it can then be easily removed. However, any software or hardware damage the virus has already caused remains after its removal. If the skill check for the system scan action exceeds the DC by 5 or more points, the virus can be isolated in an inactive form so that the character can use it to indirectly attack other systems (by uploading it to these systems).]

[The following Effects are commonly used by viruses. Advanced, powerful viruses may combine two or more effects together.]

[Data corruption: The virus corrupts files and programs in storage memory, making them unusable. This corrup-

tion progresses at a rate depending on the virus, eg 2 memory slots per day. Once a virus corrupts the entire file, its data are unrecoverable even if the virus is removed from the system. Determine which file becomes corrupted randomly; once the file is corrupted the virus will proceed corrupting other files until all data in the computer are rendered useless.]

[Disruption: The virus disrupts the function of the computer, increasing the DC of any computer-related task by an amount usually between +5 to +15. This increase is not applied to system scan actions performed to detect the virus.]

[Hardware destruction: The virus use techniques similar to those of destroyer attack programs (but usually much simpler) to attack a system's hardware. The damage roll for the attack (using the destroyer damage table) and the frequency of the attack depend on the virus. For example, a virus may deal 2d6 damage once per day.]

[Viruses have no Purchase DC, since they're illegal programs without a market. They can easily be found in the hivenet by a careless user. The virus table contains the most well-known viruses to date.]

Program	Programming DC	Speed Slots	Active/Storage Slots	Purchase DC	Restriction
Tap detector, grade 1-5	15	(1+grade):2	1+grade	13+2xgrade	--
Encryptor, grade 1-5	22	(3+grade):2	3+grade	12+4xgrade	Res for grade 4-5
Decryptor, grade 1-5	25	(4+grade):2	4+grade	16+4xgrade	Res; Mil for grade 4-5
Threat scanner, grade 1-5	20	(1+grade):2	1+grade	12+2xgrade	--
Houndbot, grade 1-5	15	(1+grade):2	1+grade	8+2xgrade	--
Lockpick, grade 1-5	22	(2+grade):2	2+grade	14+2xgrade	III
Tracer, grade 1-5	18	(1+grade):2	1+grade	12+2xgrade	Res
Retroactive tracer, grade 1-5	22	(2+grade):2	2+grade	15+2xgrade	Res
Trace monitor, grade 1-5	18	(1+grade):2	1+grade	12+2xgrade	Res
Digital armor, grade 1-12	20	(5+grade):3	(10+grade):2	15+grade	Lic for grade 7-9, Res for grade 10-12
Disruptor, grade 1-5	22	(2+grade):2	2+grade	15+2xgrade	Res
Destroyer, grade 1-5	24	(4+grade):2	4+grade	20+2xgrade	Res
Killer, grade 1-5	28	(6+grade):2	6+grade	25+2xgrade	Res
File scanner, grade 1-5	20	(1+grade):2	1+grade	8+2xgrade	--
Log deleter, grade 1-5	22	(2+grade):2	2+grade	15+2xgrade	III
Discology, grade 1-5	20	(1+grade):2	1+grade	10+2xgrade	--
Dbase tools, grade 1-5	20	(3+grade):2	3+grade	14+2xgrade	--
Network scanner, grade 1-5	22	(2+grade):2	2+grade	14+2xgrade	--
ID scanner. Grade 1-5	15	(1+grade):2	1+grade	12+2xgrade	--
Backdoor, grade 1-5	22	(2+grade):2	2+grade	15+2xgrade	III
Log analyzer, grade 1-5	20	(1+grade):2	1+grade	14+2xgrade	--
Network mask, grade 1-5	22	(2+grade):2	2+grade	15+2xgrade	III
Virus	?	--	--	--	III
Drone	--	--	--	--	--

ARTIFICIAL INTELLIGENCE

True artificial intelligence is the pinnacle of computer technology and some say the ultimate achievement of human science. Whereas most supercomputers can run expert systems and take fairly accurate decisions or make predictions based on available information, they do not question the logic behind their output and certainly don't develop any kind of awareness or consciousness. True AIs are much like other sentient beings in that they're aware of their existence in the world.

AI technology has been around for a while but still remains experimental and extremely expensive, so that only a handful of AIs have been constructed. All AIs are invariably vast machines stretching across entire buildings and requiring an army of technicians to maintain them. They are entrusted with important tasks like weather prediction, economic forecasting and particle collision analysis. Their structure is very different from that of regular computers, resembling a human's nervous system.

Each AI is a sentient being with a different personality. Part of this personality is derived from the procedures pre-programmed in the AI system during its construction, but the AI's training and first few years of "life" also have a great impact on personality development. An AI's training usually takes a couple of years and is performed by an entire team of experts, including scientists of various specialties under the supervision of psychologists.

AI Stats

[Because AIs are sentient, self-aware entities they are handled much like characters, rather than devices. An AI has a level, ability scores, skills and feats like a character. In the same time, it also has some of the characteristics of computers since it is essentially a fusion of unloving materials and sentience.]

Abilities

[An AI only has "mental" abilities: Intelligence, Wisdom and Charisma. It has no Strength, Dexterity or Constitution

whatsoever since it lacks a physical body. Determine the ability scores of an AI as those for any character, but apply the following modifiers: Intelligence +15, Wisdom -2, Charisma -4. AIs are supremely intelligent, combining sentience with titanic processing power, but they lack life experience, emotional growth and communicative ability.]

Class and Level

[Each AI has a character level and one or more classes like any normal character. Because an AI doesn't have physical abilities, it can only gain levels as a charismatic, dedicated or smart hero. An AI can also take an advanced class, if it meets its prerequisites and if the class is mentally rather than physically oriented (Gamemaster's discretion).]

[AI character levels vary widely, depending on their primary task and side projects, but a level range can be given based on the years an AI has been active.]

Active Years	Character Level
0-1	1
2-5	2-6
6-10	4-13
11-15	6-16
16-20	8-18
21+	10-20

Skills

[An AI doesn't acquire skills as humans do. Because it is essentially a sentient computer, it can accept "skill modules", pre-programmed information and data recorded in its memory. These modules range from 1-10 ranks and the AI's human designers usually include all skills necessary for the job it's made for. The AI can then improve on these skills or even acquire new ones in the normal manner, ie by spending skill points. Because of its vast storage capacity and perfect memory, an AI's limit in ranks is its character level + 9 for class skills and half that much for cross class skills. This means that even a low-level AI can quickly amass a large number of ranks in important skills and become an expert in the field, which is perhaps the

trait that makes AIs valuable to humanity.]

[Because an AI lacks a physical body, it can only gain ranks in “mental” skills, that is skills which have Intelligence, Wisdom or Charisma as their key ability.]

Feats

[An AI gains feats as normal characters do. However, its non-physical existence precludes it from taking feats based on physical activity. Thus, only the following feats are available to an AI: Attentive, Builder, Cautious, Confident, Creative, Deceptive, Educated, Gearhead, Guide, Iron Will, Medical Expert, Meticulous, Studious and Trustworthy.]

Hit Points, Damage and Death

[An AI gains hit points from its classes much like a character, but adds its Intelligence modifier to the result of the Hit Die instead of its Constitution modifier. These hit points are not used to determine its resistance against physical damage; they determine the AI's resistance against offensive software. Because an AI is such an effective and superior computer, it has +20 bonus hit points at 1st level.]

[There are three known ways to destroy an AI. The first two require someone to invade the AI's physical location, a difficult thing since most AI installations are heavily guarded. If successful, he can use explosives to blow up the machinery composing the AI; at least 60% of the AI's structure must be destroyed for the AI to become truly unrecoverable, else it can be repaired and restarted with some loss in memory and skills but with its personality matrix largely intact. A slightly easier way is to knock out the AI's cooling installations. If the coolant (most often liquid helium) is cut off, the AI's circuits will quickly overheat and melt down, leading to a thermal death within 6 minutes.]

[The third way to destroy an AI is to attack it in the hivenet using offensive software. While theoretically possible, it is practically suicidal because of its awesome capabilities as a computer. Those who wish to try tackling with an AI in the hivenet will soon discover that an AI takes damage from offensive software differently than characters or even drones do. The damage dice of an offensive program directly reduce an AI's hit points. As the AI takes damage, its performance degrades: for every

10 hit points an AI is below its maximum it suffers a -1 penalty to Intelligence. If the AI drops to 0 or lower hit points, it is destroyed. The AI's self-repair mechanisms enable him to recover 1 hit point per turn. Disruptor programs only prove a temporary inconvenience for an AI: they inflict half damage and cannot reduce the AI's hit points below half their maximum value. Destroyer and killer programs deal normal damage.]

Hacking into an AI

Hacking into an AI system is handled like hacking into any computer except that it's a very difficult if not impossible task. The hackers underground consider an AI to be the ultimate data fortress. They are correct, because there hasn't yet been any known successful hack against an AI. An AI hack requires superhuman capabilities and it may well prove that only an AI can hope to hack into another AI.

[All AIs are considered to have black-code security.]

AI Talents

[An AI receives talents from basic classes as all characters. However, there are some talents unique to AIs, simulating the extraordinary abilities they can develop based on their superhuman intelligence and supercomputer speed. An AI can take these talents from any basic class, selecting them instead of class talents.]

Digital Evasion Talent Tree

The AI is adept at avoiding hivenet attacks by presenting a non-coherent target and concealing its presence.

[**Digital Evasion:** The AI's hivenet Defense is increased by 2.]

[**Improved Digital Evasion:** The AI's hivenet defense is increased by another 2, for a total of +4.]

[Prerequisites: Digital Evasion.]

[**Advanced Digital Evasion:** The AI's hivenet Defense is increased by another 4, for a total of +8.]

[Prerequisites: Digital Evasion, Improved Digital Evasion.]

Digital Shield Talent Tree

The AI is adept at resisting digital attacks by shifting its data round and relying on backups.

[**Digital Shield:** The AI has damage reduction 1 against offensive programs.]

[**Improved Digital Shield:** The AI has damage reduction 2

against offensive programs.]

[Prerequisites: Digital Shield.]

[**Advanced Digital Shield:** The AI has damage reduction 3 against offensive programs.]

[Prerequisites: Digital Shield, Improved Digital Shield.]

Multitasking Talent Tree

The AI is adept at performing several different tasks at once.

[**Multitasking:** The AI is capable of forming two personas that can act separately from one another at the same time. Each persona has the normal action allowance of a character. For example, the AI can use one persona to perform the latest economic analysis while using the other to attack a hacker trying to infiltrate its system. Nothing prohibits both personas to be occupied with the same task at the same time.]

[**Improved Multitasking:** As Multitasking, but the AI can form three personas.]

[Prerequisites: Multitasking.]

[**Advanced Multitasking:** As Multitasking, but the AI can form four personas.]

[Prerequisites: Multitasking, Improved Multitasking.]

Security Talent Tree

The AI is adept at protecting itself against infiltration.

[**High Security:** The AI's Security level increases by 5.]

[**Ultra Security:** The AI's Security level increases by another 5, for a total of +10.]

[Prerequisites: High Security.]

[**Master Security:** The AI's Security level increases by another 10, for a total of +20.]

[Prerequisites: High Security, Ultra Security.]

Speed, Active and Storage Memory Slots

[An AI is so powerful as to have millions of speed, active and storage memory slots. The exact number is irrelevant; in game terms an AI can run any number of programs simultaneously.]

Interface

[An AI functions as if using a neural interface.]

Self-Programming

[One of an AI's most valuable traits is the ability to program itself. AIs don't use programs as other computers do. Instead, they create the code and algorithms of a program on-the-fly, when the need arises. What may seem as a grueling task for a human programmer is actually a very easy, almost instantaneous job for an AI.]

[When an AI has a need for a certain program, it can create and run it by taking an attack action and succeeding in a Computer Use (programming) check with DC equal to the Programming DC. The desired program can be of any grade. If the check fails, the AI can try again by taking a new attack action. If the skill check is successful, the program is created and becomes active. A successfully created program is stored in the AI's memory and can be recalled as a free action, without a skill check being necessary.]

SECTION FOUR

MACH FIVE

VEHICLE RULES

Accessory and Modification Size

[Vehicles can accept a variety of accessories and modifications, but all these take up space. Each of these has a Size code. This is the minimum size a vehicle must have to accept the accessory/modification (thus, an accessory with size code L can be placed in Large or larger vehicles).]

Off-road Movement

The figures on speed, maneuverability and other technical characteristics given by vehicle manufacturers usually assume movement on good-quality asphalt roads. Many people however, have the need to move across much rougher terrain, especially those living in isolated areas. In this case the typical automobile or motorcycle is a poor choice, as its performance is severely affected by the terrain. Special wheeled vehicles, like SUVs or dirt bikes, or even better tracked vehicles, are a natural choice in these cases.

[The following table presents the effects off-road movement has on ground vehicles based on the terrain type

and vehicle type (normal wheeled, all-terrain wheeled and tracked). The first number is the modifier to the vehicle's Maneuver. The second number is the modifier to Top Speed. The third is the damage the vehicle suffers for each hour it travels off the road (this damage involves particularly rough terrain and is not decreased by the vehicle's hardness). Traveling above street speed doubles the damage suffered by the vehicle.]

Vehicle Weapons

[Each vehicle can mount a limited number of weapons. A helicopter can take more weapons than a motorcycle and military vehicles can generally take more weapons than similar civilian vehicles.]

[The maximum Size of a weapon a vehicle is capable of mounting is equal to the vehicle's Size category. Thus, a Huge vehicle can mount up to Huge weapons.]

[The number of weapons a vehicle can install is determined by its available softpoints and hardpoints. A Large or smaller weapon can use either a softpoint or a hardpoint. Huge or larger weapons must use a hardpoint.]

[All vehicle weapons must be mounted on an appropriate weapon mount (fixed, swivel, turret etc). These are detailed in the accessories section.]

Terrain	Normal wheeled	All-terrain wheeled	Tracked
Sandy desert	-2/x½/0	-1/x¾/0	+0/x¾
Dirt road	-1/x1/0	+0/x1/0	+0/x1/0
Plains	-2/x¾/0	-1/x1/0	+0/x1/0
Mountain	-3/x½/d6	-1/x¾/0	+0/x¾/0
Marsh	-2/x½/d4	-1/x¾/0	-1/x¾/0
Forest	-2/x½/d3	-1/x¾/0	+0/x¾/0
Snow/ice	-4/x½/0	-3/x½/0	-2/x¾/0

MOTORCYCLES

Aprilia Xplorer

The Xplorer is generally considered one of the best dirt bikes in the world. Made for the off-road racing enthusiast, it sacrifices some speed to provide unparalleled maneuverability in the harshest terrains. Aprilia has equipped Xplorer with a GPS module as standard so that would-be conquerors of mountains and moors should not be afraid of getting lost.

[**Dimensions:** One square wide, two squares long.]

[**Weapon mounts:** One softpoint.]

[**Special:** Has an integral GPS receiver. Xplorer is considered an all-terrain wheeled vehicle when determining off-road movement penalties.]

BMW Twin Lightning

Twin Lightning has the distinction of being the fastest motorcycle in the world. BMW's racing team has won many cups and other awards running Twin Lightning and a lesser but nevertheless powerful model is available for sale. The bike has state-of-the-art features in many fields, including suspensions, brakes and a microcomputer activated in high speeds to keep the bike stable.

[**Dimensions:** One square wide, two squares long.]

[**Weapon mounts:** One softpoint.]

[**Integral accessories:** Emergency brakes, improved handling grade 2, improved speed grade 3.]

Honda Cutlass

Marketed as a no-nonsense racing bike, Cutlass features a sleek, aerodynamic design and is preferred by speed junkies.

[**Dimensions:** One square wide, two squares long.]

[**Weapon mounts:** One softpoint.]

[**Integral accessories:** Improved handling grade 1, improved speed grade 1.]

Suzuki Thrillseeker

Suzuki has made quite a success with these cheap but hardy dirt bikes. While Thrillseeker doesn't offer any bells or whistles common in more expensive models, it is affordable by most people who want to experience the thrill of off-road racing.

[**Dimensions:** One square wide, two squares long.]

[**Weapon mounts:** One softpoint.]

[**Special:** Thrillseeker is considered an all-terrain wheeled vehicle when determining off-road movement penalties.]

Yamaha Lawpatrol

Yamaha makes these motorcycles on contract with various law enforcement agencies, to be used as urban patrol vehicles. They feature a tough, armored chassis and a dual engine that uses an economy electromotor in patrol mode and switches to fuel cells to provide the horsepower needed in high speed chases.

[**Dimensions:** One square wide, two squares long.]

[**Weapon mounts:** One softpoint.]

[**Armor:** Concealed armor plating grade 3.]

[**Integral accessories:** Radio grade 1.]

Yamaha Silver Arrow

Silver Arrow is one of Yamaha's most successful motorcycle models. The idea of giving the traditional street bike the air and look of a racing bike was a stroke of genius on

Motorcycle	Crew	Pass	Cargo	Init	Mnv	TopSpeed	Defense	Hardness	HP	Size	Pur. DC	Restr
Aprilia Xplorer	I	I	0 lb	+0	+0	220 (22)	10	5	18	M	25	Lic
Suzuki Thrillseeker	I	I	0 lb	+0	+0	200 (20)	10	5	18	M	24	Lic
BMW Twin Lightning	I	I	0 lb	+0	+2	340 (34)	10	5	18	M	33	Lic
Honda Cutlass	I	I	0 lb	+0	+1	280 (28)	10	5	18	M	28	Lic
Yamaha Silver Arrow	I	I	0 lb	+0	+0	180 (18)	10	5	22	M	23	Lic
Yamaha Lawpatrol	I	I	0 lb	+0	+0	180 (18)	10	8	22	M	24	Res

part of the designers and probably the main reason behind the model's success.

[Dimensions: One square wide, two squares long.]

[Weapon mounts: One softpoint.]

CARS

[All cars provide three-quarters cover for crew and passengers, unless otherwise stated in their description.]

Audi Ultima

Ultima is Audi's luxury coupe. A sleek and stylish car, the impression its appearance leaves behind is only surpassed by its performance on the road.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

[**Integral accessories:** Emergency brakes.]

BMW 8.22 Konvertor

This luxury sedan has a classic, streamlined appearance attractive to the eye. Combining comfort with speed, it's one of the best choices in its category.

[**Dimensions:** Two squares wide, four squares long.]

[**Weapon mounts:** Two softpoints, one hardpoint.]

[**Integral accessories:** Emergency brakes, improved handling grade I.]

BMW 8.54 Konvertor Coupe

This is the coupe edition of the Konvertor sedan. It is based on the sedan version, but is more compact and sports a faster engine. When compared to other coupes its appearance may seem rather bland and strict, but it is nevertheless a classic, timeless design from a manufacturer with a long history.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

[**Integral accessories:** Emergency brakes, improved handling grade I, improved speed.]

Chrysler Lawmaster 1000

This sedan is a patrol car sold by Chrysler to various law enforcement agencies. It features a tough frame that can withstand small arms fire pretty well and a tweaked hybrid electromotor/fuel cell engine that provides economy during patrols and speed during chases.

[**Dimensions:** Two squares wide, four squares long.]

[**Weapon mounts:** Two softpoints, one hardpoint.]

Car	Crew	Pass	Cargo	Init	Mnv	TopSpeed	Defense	Hardness	HP	Size	Pur. DC	Restr
Audi Ultima	I	4	250 lb	-2	-1	240 (24)	8	5	32	H	35	Lic
BMW 8.22 Konvertor	I	4	400 lb	-2	-1	240 (24)	8	5	35	H	33	Lic
BMW 8.54 Konvertor Coupe	I	4	250 lb	-2	+0	260 (26)	8	5	32	H	36	Lic
BMW MountainWagon	I	4	700 lb	-2	-2	220 (22)	8	5	38	H	35	Lic
Chrysler Lawmaster 1000	I	4	300 lb	-2	-2	200 (20)	8	10	35	H	32	Res
Daewoo Astrax	I	3	150 lb	-2	-1	140 (14)	9	5	30	L	27	Lic
Daewoo Metroplex	I	I	75 lb	-2	+0	120 (12)	9	5	28	L	25	Lic
Lamborghini Infernus	I	I	100 lb	-2	+2	450 (45)	8	5	32	H	40	Lic
Landrover Exciter	I	3	600 lb	-2	-2	180 (18)	8	5	38	H	32	Lic
Lotus Zeta	I	I	100 lb	-2	+0	320 (32)	8	5	32	H	37	Lic
Mercedes Magnitude	I	4	400 lb	-2	+0	260 (26)	8	5	35	H	34	Lic
Rolls Royce R7000 VIP	I	7	500 lb	-4	-4	200 (20)	6	15	38	G	38	Lic
Toyota Eclipse	I	3	200 lb	-2	-1	160 (16)	9	5	30	L	29	Lic
Toyota Exelcis	I	4	300 lb	-2	-2	180 (18)	8	5	35	H	30	Lic
Toyota Exelcis Coupe	I	4	200 lb	-2	-1	200 (20)	8	5	32	H	32	Lic
Toyota Piranha	I	I	100 lb	-2	-2	260 (26)	8	5	32	H	34	Lic

[**Armor:** Concealed armor plating grade 5.]

[**Integral accessories:** Armored glass panels, radio grade 2, puncture-resistant tires.]

Daewoo Astrax

A common sight in modern metropolis, the Astrax is an economy compact car running on an electromotor. Although having been accused of consuming too much power to be truly economic in the long run, its low price appeals to many people with a tight budget.

[**Dimensions:** Two squares wide, two squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

Daewoo Metroplex

Metroplex is a true metrocar, a vehicle made for the modern urban environment. It can seat no more than two in comfort, has a very limited cargo space and is powered by a small electromotor incapable of attaining high speeds. Yet, its compact size, power efficiency and low price make it ideal for those interested in a car for everyday life in the big city.

[**Dimensions:** Two squares wide, two squares long.]

[**Weapon mounts:** Two softpoints.]

Lamborghini Infernus

One of the most highly coveted automobiles, Infernus also has the distinction of being the fastest car available in the commercial market. With an aerodynamic, futuristic look, two roaring engines and an army of accessories and options, it has achieved a fetish status.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

[**Integral accessories:** Emergency brakes, improved handling grade 4, improved speed grade 5.]

Landrover Exciter

This is an economy SUV for those who want an all-terrain vehicle without having to spend a small fortune.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

[**Special:** Exciter is considered an all-terrain wheeled vehicle when determining off-road movement penalties.]

Lotus Zeta

A sleek, fast and prestigious car, Zeta is what comes in most peoples' mind when they hear the words "sports car". It has more or less the classic appearance used in Lotus' models, making it an instant classic.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

[**Integral accessories:** Emergency brakes, improved handling grade 2, improved speed grade 4.]

Mercedes Magnitude

A status symbol anywhere in the world, this sedan offers comfort, luxury, power and safety, all wrapped up in an exquisite package bearing the name of a respected manufacturer.

[**Dimensions:** Two squares wide, four squares long.]

[**Weapon mounts:** Two softpoints, one hardpoint.]

[**Integral accessories:** Emergency brakes, improved handling grade 2, improved speed grade 1.]

Rolls Royce R7000 VIP

This large limo is based on a classic, timeless design but this doesn't stop it from offering many modern comforts, like an onboard computer, audio and video system with satellite link, mini-bar and full temperature control. Designed with the intention of transporting important people, the R7000 features several layers of well-concealed armor that offer protection without making the car look like a tank on wheels.

[**Dimensions:** Two squares wide, five squares long.]

[**Weapon mounts:** Two softpoints, one hardpoint.]

[**Armor:** Concealed armor plating grade 10.]

[**Integral accessories:** Armored glass panels, puncture-resistant runflat tires.]

Toyota Eclipse

Eclipse is an all-purpose, comfortable compact car with high quality standards. Offering comfortable seating, an astonishingly large cargo space for a car of its category and a hybrid electric/fuel cell engine, it is suitable for any occasion in everyday city life.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

Toyota Exelcis

Perhaps the best-selling automobile across the world, this sedan combines quality production values with an economic price. It doesn't try to be anything more than a car for the masses that can be afforded by the masses, but it's very good at its job.

[**Dimensions:** Two squares wide, four squares long.]

[**Weapon mounts:** Two softpoints, one hardpoint.]

Toyota Exelcis Coupe

This is the coupe edition of the Exelcis sedan. It has identical production values with the sedan version and a slightly more powerful engine. It has met wide success due to its

futuristic appearance, which is a great departure from the sedan version.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

[**Integral accessories:** Improved speed grade 1.]

Toyota Piranha

If there is such a thing as an economy sports car, it is the Piranha. Although it can't match the comfort or speed of more expensive models, it delivers much more than it costs.

[**Dimensions:** Two squares wide, three squares long.]

[**Weapon mounts:** One softpoint, one hardpoint.]

[**Integral accessories:** Improved speed grade 2.]

TRUCKS AND VANS

[All trucks and vans provide three-quarters cover for crew and passengers unless stated other wise in their description. Their cargo hold provides full cover, unless the doors are open (in which case it only provides one-quarter cover).]

Audi Quadron

The Quadron is a minivan used to drive a small group in relative comfort rather than transport goods.

[**Dimensions:** Two squares wide, four squares long.]

[**Weapon mounts:** Three softpoints, one hardpoint.]

[**Special:** The Quadron doesn't have a cargo hold providing full cover.]

Chrysler Lawmaster 2000

This is a heavily armored van used by law enforcement agencies to transport prisoners or special squads to the place they're needed.

[**Dimensions:** Two squares wide, five squares long.]

[**Weapon mounts:** Two softpoints, two hardpoints.]

[**Armor:** Concealed armor plating grade 10.]

[**Integral accessories:** Armored glass panels, puncture-resistant tires, radio grade 2.]

[**Special:** Lawmaster's cargo hold has been converted to a seating space, that is why the vehicle has a large passenger and a low cargo rating.]

Mercedes Kamox

This huge semi-tractor is the king of the highways. It is perfectly capable of transporting a heavy load of goods and materials over long distances, although its speed is heavily limited by its size and maneuverability.

[**Dimensions:** Two squares wide, nine squares long.]

[**Weapon mounts:** Five softpoints, four hardpoints.]

Toyota Transporter

Transporter is a rather typical van used for transportation within a city.

[**Dimensions:** Two squares wide, five squares long.]

[**Weapon mounts:** Two softpoints, two hardpoints.]

VW Hauler

Hauler is a light truck commonly used for transporting goods over relatively short distances.

[**Dimensions:** Two squares wide, six squares long.]

[**Weapon mounts:** Three softpoints, two hardpoints.]

VW Rhino

Rhino is a heavily armored truck based on the Hauler's frame. It is commonly used to transport cash or previous goods.

[**Dimensions:** Two squares wide, six squares long.]

[**Weapon mounts:** Three softpoints, two hardpoints.]

[**Armor:** Armor plating grade 10.]

[**Integral accessories:** Armored glass panels, puncture-resistant runflat tires, radio grade 3.]

Truck/Van	Crew	Pass	Cargo	Init	Mnv	TopSpeed	Defense	Hardness	HP	Size	Pur. DC	Restr
Audi Quadron	1	10	300 lb	-2	-2	180 (18)	8	5	38	H	32	Lic
Chrysler Lawmaster 2000	1	12	400 lb	-4	-5	150 (15)	6	15	42	G	36	Res
Mercedes Kamox	1	2	50,000 lb	-4	-4	150 (15)	2	5	50	C	36	Lic
Toyota Transporter	1	4	1,500 lb	-4	-4	170 (17)	6	5	42	G	34	Lic
VW Hauler	1	2	15,000 lb	-4	-4	150 (15)	6	5	45	G	34	Lic
VW Rhino	1	2	15,000 lb	-4	-5	130 (13)	6	15	45	G	36	Res

ARMORED VEHICLES

All armored vehicles provide full cover for their crew and passengers, unless stated otherwise in their description.]

Brightspear

Brightspear is an effective mobile anti-air platform using the converted frame of a battle tank. Lightly armored and inefficiently armed against ground threats, it relies on mobility and friendly support for protection while engaging airborne targets. Brightspear is effective against both high-altitude and low-altitude aircrafts, using a powerful but compact radar to detect them and a battery of twin autocannons and radar-guided missiles to destroy them.

[**Dimensions:** Three squares wide, six squares long.]

[**Armament:** Two fire-linked 25 mm autocannons on a full turret, two forward-firing light missile pylons.]

[**Armor:** Armor plating grade 10.]

[**Integral accessories:** Air-search high-res imaging radar grade 3, radio grade 3 with encryption module grade 3.]

[**Special:** Brightspear is considered a tracked vehicle when determining off-road movement penalties. Starlight imaging for the pilot and gunner. The autocannons are linked to the radar so that they receive a +4 fire control bonus to the attack roll against any airborne target detected by the radar.]

Lawmaster 3000

Lawmaster 3000 is an armored police vehicle used in riot control and special operations. It can safely carry a special police squad, deliver tear gas grenades and disperse rioting crowds using its water cannon. Against heavily armed opponents, it can defend itself using its twin machine guns. A heavy ram designed to break through blockades is attached to its front.

[**Dimensions:** Three squares wide, five squares long.]

[**Weapon mounts:** Four softpoints, three hardpoints.]

[**Armament:** Water cannon and 2 fire-linked machine guns on full turret, 2 grenade launchers on concealed fixed mounts (one on each side).]

[**Armor:** Armor plating grade 10.]

[**Integral accessories:** Puncture-resistant runflat tires, radio grade 2.]

[**Special:** When Lawmaster rams a target, the damage it inflicts is multiplied by 1.5 while the damage it suffers is halved.]

Morning Star

The Morning Star is a fine example of modern main battle tanks: heavily armed to be able to crush nearly any opposition in the battlefield and heavily armored so that it can only be threatened by well-armed opponents. Powered by dual methane engines, its main weapon is a 120 mm cannon that can pulverize targets many miles away. The Morning Star also includes many other weapons and defenses.

[**Dimensions:** Three squares wide, six squares long.]

[**Weapon mounts:** Five softpoints, six hardpoints.]

[**Armament:** 120 mm cannon and medium machine gun on full turret, 2 forward-firing heavy missile bays, swivel-mounted heavy machine gun on top of turret, 4 swivel-mounted grade 3 drone medium machine guns (two on each side).]

[**Armor:** Armor plating grade 20.]

[**Integral accessories:** Fire suppression system, ground-search low-res imaging radar grade 3, radio grade 3 with encryptor module grade 3, smoke generator.]

[**Special:** Morning Star is considered a tracked vehicle when determining off-road movement penalties. Starlight imaging for the pilot and the gunner. The 120 mm cannon

Armored Vehicle	Crew	Pass	Cargo	Init	Mnv	TopSpeed	Defense	Hardness	HP	Size	Pur. DC	Restr
Brightspear	4	0	425 lb	-4	-5	80 (8)	6	15	65	G	45	Mil
Lawmaster 3000	3	10	425 lb	-4	-5	100 (10)	6	15	55	G	40	Mil
Morning Star	4	0	425 lb	-4	-6	80 (8)	6	25	65	G	47	Mil
Orca	3	0	425 lb	-4	-5	100 (10)	6	20	55	G	45	Mil
Roamer	3	10	425 lb	-4	-5	100 (10)	6	20	55	G	42	Mil

has a rangefinder and a targeting system that provides a +4 fire control bonus to attack rolls (assuming that the rangefinder can be used to measure distance to the target).]

Orca

This light tank serves as a reconnaissance and fire support vehicle. Lightly armed and armored when compared to main battle tanks, it relies on its speed to outmaneuver larger opponents and is quite capable of taking on any target except from the heaviest tanks. Apart from the usual equipment, it features a powerful 30 mm autocannon as its main weapon.

[**Dimensions:** Three squares wide, five squares long.]

[**Weapon mounts:** Five softpoints, five hardpoints.]

[**Armament:** 30 mm autocannon and medium machine gun on full turret, forward-firing light missile bay, swivel-mounted heavy machine gun on top of the turret, 2 swivel-mounted grade 3 drone medium machine guns (one on each side).]

[**Armor:** Armor plating grade 15.]

[**Integral accessories:** Fire suppression system, radio grade 3 with encryptor module grade 3, smoke generator.]

[**Special:** Orca is considered a tracked vehicle when determining off-road movement penalties. Starlight imaging for the pilot and gunner. The 30 mm autocannon has a rangefinder and a targeting system that provides a +4 fire control bonus to attack rolls (assuming that the rangefinder can be used to measure distance to the target).]

Roamer

Roamer is an armored personnel carrier, designed to deliver infantry squads quickly and safely in the thick of the action.

[**Dimensions:** Three squares wide, five squares long.]

[**Weapon mounts:** Four softpoints, four hardpoints.]

[**Armament:** 25 mm autocannon and medium machine gun on full turret.]

[**Armor:** Armor plating grade 15.]

[**Integral accessories:** Fire suppression system, radio grade 2 with encryptor module grade 3, smoke generator.]

[**Special:** Roamer is considered a tracked vehicle when determining off-road movement penalties. Starlight imaging for the pilot and gunner.]

ROTORCRAFTS

[All rotorcrafts provide their crew and passengers with three-quarters cover, unless otherwise stated in their description.]

cargo lifted through steel cables. When Gabriel carries attached cargo heavier than 2,000 lbs, its Maneuver level gets a -2 penalty.]

Falcon

This is an all-purpose helicopter used extensively for a variety of tasks, like aerial photo shootings, VIP transportation, even medical evacuations.

[**Dimensions:** Two squares wide, seven squares long.]

[**Weapon mounts:** Two softpoints, two hardpoints.]

[**Integral accessories:** Air-search radar grade 1, radio grade 2.]

[**Special:** Passenger seating is in the back section which has sided doors. If these doors are open, passengers only get one-quarter cover.]

Hornet

The Hornet is called a mini-heli, because it is a miniature rotorcraft designed to transport only the pilot. It is mostly intended to be used by hobbyists.

[**Dimensions:** One square wide, three squares long.]

[**Weapon mounts:** One softpoint.]

[**Integral accessories:** Air-search radar grade 1, radio grade 1.]

[**Special:** Because of its design, it only provides one-quarter cover to the pilot.]

Gabriel

Gabriel is a monster of a rotorcraft, used to transport heavy cargo. Aside from its large cargo space, it can be used to lift extra cargo attached to it with steel cables. Gabriel uses a twin rotor configuration to generate enough lifting thrust.

[**Dimensions:** Two squares wide, ten squares long.]

[**Weapon mounts:** Five softpoints, three hardpoints.]

[**Integral accessories:** Air-search radar grade 1, radio grade 3.]

[**Special:** Gabriel's cargo hold is accessed by side doors. When these are open, anyone in the cargo hold only has one-quarter cover. When the doors are closed, anyone in the cargo hold has full cover. The Cargo rating given in Gabriel's statistics measures the total weight the craft can lift; this can be split between the cargo hold and any

Mangusta

This specialized assault rotorcraft is a tank killer. It can detect and track down armored vehicles even in thick jungles using advanced sensors, and destroy them with its potent 30 mm autocannon or anti-tank rockets.

[**Dimensions:** Two squares wide, seven squares long.]

[**Weapon mounts:** Four hardpoints.]

[**Armament:** Fixed-mount 30 mm autocannon, 2 heavy missile pylons.]

[**Armor:** Armor plating grade 5.]

[**Integral accessories:** Heat scanner grade 4, multimode high-res imaging radar grade 3, radio grade 2 with encryption module grade 3.]

[**Special:** Starlight and thermographic imaging for the pilot and gunner. The gunner has a smart targeting HUD, which provides a +2 fire control bonus to attack rolls with the weapons.]

Car	Crew	Pass	Cargo	Init	Mnv	TopSpeed	Defense	Hardness	HP	Size	Pur. DC	Restr
Falcon	1	4	500 lb	-4	-4	300 (30)	6	5	45	G	43	Lic
Gabriel	2	12	10,000 lb	-8	-8	300 (30)	2	5	65	C	45	Lic
Hornet	1	0	0 lb	-4	-4	200 (20)	9	5	20	L	40	Lic
Mangusta	2	0	0 lb	-4	-4	400 (40)	6	10	50	G	47	Mil
Rattlesnake	1	0	0 lb	-4	-4	450 (45)	6	10	40	G	45	Mil
Redgain	2	3	400 lb	-4	-4	300 (30)	6	10	45	G	44	Res
Yellowasp	3	5	200 lb	-4	-4	350 (35)	6	10	45	G	46	Mil

Rattlesnake

Rattlesnake is a one-man assault rotorcraft designed to ambush and destroy infantry squads and lightly armored vehicles. Its small size, speed and maneuverability enable it to perform its duties very well and avoid confrontations with superior opponents. During peace, Rattlesnakes are commonly used for patrols.

[**Dimensions:** Two squares wide, five squares long.]

[**Weapon mounts:** Two softpoints, two hardpoints.]

[**Armament:** Two fixed-mounted fire-linked portable gatling guns and two fixed-mounted fire-linked grenade machine guns. All are rigged to the pilot's controls.]

[**Armor:** Armor plating grade 5.]

[**Integral accessories:** Air-search radar grade 2, radio grade 2.]

[**Special:** Starlight imaging for the pilot. A smart targeting HUD provides a +2 fire control bonus to attack rolls with the weapons.]

Redgain

Redgain is a conventional rotorcraft adapted to the needs of modern law enforcement agencies, including patrol, surveillance, rapid response and rescue operations.

[**Dimensions:** Two squares wide, seven squares long.]

[**Weapon mounts:** Two softpoints, two hardpoints.]

[**Armament:** Swivel-mounted medium machine gun on the right side of the back section.]

[**Armor:** Armor plating grade 5.]

[**Integral accessories:** Air-search radar grade 2, parabolic mike, radio grade 2, telescopic video camera with starlight imaging, telescopic video camera with thermographic imaging.]

Yellowasp

Yellowasp is a military rotorcraft based on the hull of a conventional helicopter and designed to transport and support infantry squads. It performs these duties admirably well, although it is somewhat vulnerable against armored vehicles and gun emplacements.

[**Dimensions:** Two squares wide, seven squares long.]

[**Weapon mounts:** Two softpoints, four hardpoints.]

[**Armament:** Two fixed-mounted fire-linked medium machine guns rigged to the pilot's controls, two light missile pylons rigged to the pilot's controls, two swivel-mounted point-defense gatling guns in the back section (one on each side).]

[**Armor:** Armor plating grade 5.]

[**Integral accessories:** Air-search radar grade 2, radio grade 2 with encryption module grade 3.]

[**Special:** Starlight imaging for the pilot and gunner. Passenger seating is in the back section, which has side doors. If those doors are open (a requirement for the gatling guns to be fired) passengers and gunners receive only one-quarter cover. A winch in the back section is used to lower to and raise troops from the ground.]

JETS

[All jets provide three-quarters cover for crew and nine-tenths cover for passengers unless stated otherwise in their description.]

EF2040 Efreet

The Efreet is a modern jet fighter/interceptor. It features sophisticated detection and defensive electronic systems as well as radar stealth technology. Its powerful jets can propel it to mach 5, making it one of the world's fastest vehicles, and several weapon systems (mainly missiles and bombs) can be carried by it.]

[**Dimensions:** Seven squares wide (including wings; fuselage is two squares wide), nine squares long.]

[**Weapon mounts:** Four softpoints, six hardpoints.]

[**Armament:** Twin fire-linked 20 mm autocannons on concealed fixed mounts, 4 heavy missiles bays.]

[**Armor:** Armor plating grade 5.]

[**Integral accessories:** ABC (chaff, flare), ECM grade 4, low-res imaging radar grade 3, radio grade 5 with encryptor module grade 3, reflec shielding grade 4.]

[**Special:** Starlight and thermographic imaging for the pilot. The pilot has a smart targeting HUD, which provides a +2 fire control bonus to attack rolls with the weapons.]

Lockheed Silverhawk

This is a small passenger jet frequently used to carry VIPs to their destination. Its luxury, spacious interior ensures comfort during flight.

[**Dimensions:** Ten squares wide (including wings; fuselage is two squares wide), twelve squares long.]

[**Weapon mounts:** Four softpoints, four hardpoints.]

[**Integral accessories:** Radar grade 2, radio grade 3.]

Car	Crew	Pass	Cargo	Init	Mnv	TopSpeed	Defense	Hardness	HP	Size	Pur. DC	Restr
EF2040 Efreet	1	0	0 lb	-4	-2	5000 (500)	6	10	45	G	52	Mil
Lockheed Silverhawk	2	20	1,000 lb	-4	-4	1700 (170)	6	5	45	G	49	Lic

ACCESSORIES AND MODIFICATIONS

Anti-Ballistic Countermeasures

These systems are designed to protect a vehicle from guided missiles. They include chaff, flares and anti-ballistic missiles.

- **Chaff:** *This system detects an incoming radar, radar radiation or microwave-tracking missile and releases a cloud of aluminum particles to fool it.*
- **Flare:** *This system detects an incoming infrared-tracking missile and releases a bright flare to lure the missile's heat-seeking system towards it.*
- **ABMs:** *Anti-ballistic missiles are smart missiles with small warheads designed to intercept and destroy incoming missiles before they hit the vehicle. All ABMs use radar tracking.*

[**Chaff:** Chaff is effective against missiles using radar, radar radiation or microwave tracking. An aluminum deployment is automatically released against any such threat and will provide nine-tenths concealment for Huge or smaller vehicles or three-quarters concealment for Gargantuan or Colossal vehicles against such missiles for one round. A chaff system holds 5 deployments; new ones have Purchase DC 8 (per 5 deployments).]

[**Flare:** Flare works exactly like chaff, but is only effective against infrared tracking missiles. A flare system holds 5 flares. New flares have Purchase DC 10 (per 5 flares).]

[**ABMs:** An ABM system consists of the targeting computer and the missiles. The targeting computer is linked to a radar (probably the one used by the vehicle) and detects incoming missiles as well as launches and guides the ABMs against them. The actual ABMs are light rockets with standard explosive warheads and assisted radar tracking systems (using the radar linked to the targeting computer). If they succeed in an attack roll against an incoming missiles (light missiles have Defense 14, heavy

missiles have Defense 13) they destroy it; ABMs are considered to attack with a +5 base attack bonus (based on the skill of the targeting computer, since the pilot isn't actively controlling them). ABMs need to be placed on weapon mounts as all weapons.]

Armor Plating

This modification consists of armored plates placed on a vehicle to increase its resistance against attacks. The plates are either steel, ceramic or composite ones. Apart from being quite obvious, they also reduce a vehicle's speed and handling due to their weight. The first problem is addressed by concealed plates which can not be distinguished from the rest of the vehicle, but are more expensive and difficult to install.

[Armor plating comes in grades. Each grade will increase a vehicle's hardness by 1. However, it will also decrease top speed by 2% and for every 5 grades Maneuver drops by 1 (so, grade 10 armor plating gives -20% top speed and -2 Maneuver).]

[Standard armor plating is quite obvious to any onlookers. Armor plating can also be concealed, which can't be detected visually, but is more expensive. After armor plating is installed, it can't be further upgraded; to install heavier or lighter plating you have to first remove the old one.]

Armored Glass Panels

These are made from impact-resistant polymers and will protect from most small arms. They're common in armored cars.

[Armored glass panels have hardness 10 and 4 hit points.]

Accessory	Size	Purchase DC	Restriction
ABC, AB missile	--	22	Mil
ABC, ABM targeting computer	Large	20	Mil
ABC, chaff	Large	18	Mil
ABC, flare	Large	18	Mil
Armor plating, concealed, grade 1-15	Medium for grade 1-3, large for 4-6, huge for 7-9, gargantuan for 10-12, colossal for 13-15	10+grade+1 per size category of the vehicle	Lic for grade 1-5, Res for grade 6-10, Mil for grade 11+
Armor plating, standard, grade 1-25	Medium for grade 1-5, large for 6-10, huge for 11-15, gargantuan for 16-20, colossal for 21-25	5+grade+1 per size category of the vehicle	Lic for grade 1-5, Res for grade 6-10, Mil for grade 11+
Armored glass panels	Medium	10	--
Drone weapon system, grade 1-5	--	17+grade	Mil
ECM, grade 1-5	Large for grade 1-2, huge for grade 3-4, gargantuan for grade 5	20+gradex2	Mil
Fire link	--	10	Mil
Fire suppression system	Large	12	--
Gun port	Large	5	Res
Gyrostabilization	--	10+1 per weapon size category	Mil
Improved handling, grade 1-5	Medium	12+gradex2	--
Improved speed, grade 1-5	Medium	15+gradex2	--
Radar detector	Large	17	--
Radar, grade 1-5	Large for grade 1, huge for 2, gargantuan for 3, colossal for 4-5	18+gradex3	Res for grade 4, Mil for grade 5
Radar, high-res imaging	--	30	Mil
Radar, low-res imaging	--	27	Mil
Radar, multimode	--	24	--
Radio, grade 1-5	Medium for grade 1, Large for grade 2-3, Huge for grade 4-5	8+gradex2	--
Reflec shielding, grade 1-5	Large	23+gradex2	Mil
Remote control platform, additional cable port	--	13	--
Remote control platform, additional control slot	--	18	--
Remote control platform, additional infrared port	--	15	--
Remote control platform, additional remote port	--	16	--
Remote control platform, basic	Small	22 for ground vehicles, 26 for rotorcrafts, 30 for jets	--

Drone Weapon System

A drone weapon system turns any automatic vehicular weapon into a smart weapon capable of acting on its own. Equipping the weapon with servomotors and rigging it to a microcomputer, the drone is entirely capable of targeting hostiles it detects through a motion scanner and engaging them with autofire until they're neutralized. It is most

commonly used by heavy military vehicles to set up an anti-personnel perimeter defense, protecting against grunts with anti-armor weapons.

[A drone system can be installed on any vehicle weapon capable of automatic fire. Usually one system is required for each weapon, but fire-linked weapons can be grouped under the same system. A drone weapon comes in grades.

Accessory	Size	Purchase DC	Restriction
Smoke generator	Large	15	--
Thermal shielding, grade 1-5	Large	25+gradex2	Mil
Tire, puncture-resistant runflat	--	12	--
Tire, puncture-resistant	--	10	--
Tire, runflat	--	10	--
Weapon mount, concealed fixed	Medium	12	Mil
Weapon mount, fixed	Medium	10	Res
Weapon mount, full turret	Gargantuan	20	Mil
Weapon mount, heavy missile pylon	Gargantuan	16	Mil
Weapon mount, light missile pylon	Huge	14	Mil
Weapon mount, missile bay	Gargantuan	As pylon+4	Mil
Weapon mount, partial turret	Gargantuan	18	Mil
Weapon mount, pop turret	Gargantuan	As turret+4	Mil
Weapon mount, swivel	Huge	12	Res

It detects targets using a motion scanner (see the Hi-Tek section) of grade equal to its own. If a target is detected, he is engaged until destroyed or repelled. A single target is attacked by burst fire, while for multiple targets the drone uses autofire. A drone has the following statistics: Atk bonus +2 x grade, Init 1 + grade and is considered to be proficient with any weapon it controls as well as have the Advanced Firearms Proficiency, Burst Fire and Strafe feats.

ECM

ECM stands for Electronic Countermeasure. This electronic set messes with communications and electronic equipment based on radiowaves in an extended area, jamming radios and radars.

[An ECM comes in grades. It can be activated or deactivated as a move action. When activated, it inflicts a penalty to radar detection checks and attack rolls of missiles using radar tracking, and disrupts all communications made with radios of a certain grade or less (higher-grade radios still function, although their effective range is halved). Handheld radios and cell phones are also disrupted, regardless of their grade. These effects apply in the immediate surrounding area; for every 5 miles of distance the radar penalty is reduced by 2 and the affected radio grade by 1. Note that an ECM's user is affected by it as much as his opponents are.]

Grade	Radar Penalty	Disrupted Radio Grade
1	-2	2
2	-4	3
3	-6	4
4	-8	5
5	-10	5

Fire Link

This device connects two or more weapons together so as to be able to fire simultaneously.

[A fire link can connect two or more weapons of the same type. The weapons linked need not be on the same mount, but they have to be able to fire in the same fire arcs. Fire-linked weapons fire together in the same attack action; only one attack roll is made and if successful, all weapons hit.]

Fire Suppression System

A fully automatic system using inert gases to put out fires in milliseconds.

[A fire suppression system will extinguish any fire in the vehicle's interior within one round, but the gases inflict a -4 penalty to Drive or Pilot checks and attack rolls for all crew and passengers for 4 rounds afterwards. After dealing with a fire, the system must be refilled with gas (Purchase DC 5).]

Gun Port

This simple modification installs a roughly muzzle-sized port in the vehicle's chassis into which someone can stick his gun and fire outside without exposing himself. It's usually placed under an armored glass panel (to give the shooter some visibility) and can be plugged when not needed.

[Someone using the gun port can fire his weapon at the firing arc the gun port covers while retaining all the cover provided by the vehicle.]

Gyrostabilization

This modification is installed on vehicular weapons to assist in keeping the weapon trained on the target.

[Gyrostabilization can be installed in any weapon, except those on fixed mounts. It decreases attack penalties due to speed by 2.]

Improved Handling

This term encompasses various modifications, such as all-wheel steering, that improve handling and provide smoother control over the vehicle.

[Improved handling comes in grades. Each grade grants a +1 equipment bonus to the vehicle's Maneuver rating.]

Improved Speed

This term encompasses various modifications, such as performance engines, afterburners, NO2 boosters, that improve a vehicle's speed.

[Improved speed comes in grades. Each grade grants a 10% increase in top speed.]

Radar

Radars detect targets within an effective range, which varies according to the radar's power, projecting their location as "blips" on a display screen. They can be generally divided into surface or air search radars, with each being optimized to detect different targets. Modern radars can also host additional properties at an increased cost. Among these are:

- **Low-res imaging:** *This type has a much higher resolution than a common radar, revealing a target's general shape and size.*
- **High-res imaging:** *An even higher resolution ra-*

dar, it is able to provide a fairly accurate black and white image of the target.

- **Multimode:** *This type of radar is effective at detecting both airborne and ground targets.*

[Radars come in grades. When purchasing a radar, you must designate it as either an air search or surface search one. To detect a target, a radar must succeed in a detection check. This is a d20 roll, adding a +5 bonus per grade. The DC is usually 5 per 15 miles of distance (for airborne targets) or one mile of distance (for ground targets). An air search radar trying to detect a ground target or a surface search radar trying to detect an airborne target has +10 DC. Only medium or larger targets will be detected by a radar. A gargantuan target has its DC decreased by 5; a Colossal target has its DC decreased by 10. A Medium target has its DC increased by 5. Because a radar constantly functions at an optimal level of performance, it is always assumed to take 10 on its detection check unless you tweak its settings (see below).]

[Radars make a detection check once per round (at the beginning of a round); the result of this single check is then compared to the DC of each possible target to determine which of them are detected. By taking a move action, you can tweak a radar's settings to attempt to detect targets far away or with special anti-radar protection. Make a DC 15 Computer Use check. If you succeed, the next detection check made by the radar gets a +1 competence bonus plus an extra +1 bonus for every 5 points the check result exceeds the DC by. However, when you tweak its settings, a radar cannot take 10 on its roll.]

[The following radar options are available. They can be added to any radar by paying the Purchase DC for each one separately and can even be combined together, but they can't be added after the radar is installed.]

[Multimode: A multimode radar is considered both an air-search and surface-search at the same time.]

[Low-res imaging: This option will reveal a target's general shape and size if the detection check result exceeds the DC by 5 or more points.]

[High-res imaging: This option functions like low-res imaging, but if the DC is exceeded by 10 or more points, it provides a black and white image of the target.]

Remote Control Platform

This device is used to slave a vehicle's systems to a control interface implant, enabling someone to control the vehicle with his thought. A basic remote platform only allows control over basic functions, like acceleration, deceleration and maneuvering, but at an additional cost nearly any system or onboard weapon can be controlled through it. Basic communication with the control interface is made through a cable port (to be connected to the user's datajack), but advanced platforms can take advantage of infrared or remote ports.

[A remote control platform must be installed on any vehicle the user wants to control through a control interface implant. The basic platform has one control slot and one cable port. Additional control slots and other types of ports (infrared or remote) can be added by paying their cost separately.]

[Control slots are used to control the vehicle, its systems and weapons. The first control slot is always dedicated to controlling speed and maneuvering. Each other system or weapon to be controlled requires an additional control slot (fire-linked weapons only require one slot). Once a slot is dedicated to a system or weapon, it can't be re-assigned. The platform always overrides manual control.]

Radio

Broadband, two-way radios are a standard of communication between vehicles.

[Radios come in grades. A radio's effective range is 30 miles per grade. The size code of a radio depends on its grade.]

Reflec Shielding

This modification adds a special coating on the vehicle's surface that is designed to absorb electromagnetic waves, making the vehicle very hard to detect with radars.

[Reflec shielding comes in grades. Each grade will increase the DC of a radar's detection check by 5.]

Smoke Generator

This device produces a cloud of smoke to cloak the vehicle

and the surrounding area.

[When a smoke generator is used, it covers an area of 20 ft radius around the vehicle with a cloud of smoke. The area covered increases by 10 ft radius per round, up to a maximum of 60 ft. The smoke obscures all sight, including infrared vision and provides anyone within the cloud with total concealment. The cloud disperses after 10 rounds, although a moderate wind (11+ mph) disperses it in 4 rounds and a strong wind (21+ mph) in one round. A smoke generator can produce 10 deployments of smoke before it needs to be refilled. New deployments have Purchase DC 5.

Thermal Shielding

This modification masks the heat signature of a vehicle quite effectively. It is used to fool heat scanners, as well as heat-seeking missiles.

[Thermal shielding can be installed in any vehicle except from jets (their hot gases exhausts negates any shielding). Thermal shielding inflicts a penalty on guided missiles using an infrared tracking system and provides the vehicle with concealment to those using infrared vision (thermographic imaging). Twice the miss chance of the concealment should be used to see if the vehicle passes undetected by a heat scanner (eg if there is a 40% miss chance, the vehicle has an 80% chance of not being detected by a heat scanner).]

Grade	Missile Penalty	Infrared Concealment
1	-2	One-quarter
2	-4	One-half
3	-6	Three-quarters
4	-8	Nine-tenths
5	-10	Total

Tires, Special

An important part of any wheeled vehicle, tires in a typical cyberpunk scenario tend to get shot, ruptured and generally abused a lot, so it's always a good idea to invest some money in them. Special tires include puncture-resistant tires, hard enough to resist abuse, runflat tires, which perform quite well even if deflated, and the combined puncture-resistant runflat tires.

[Puncture-resistant tires have hardness 3 and 5 hit points. Runflat tires don't lose much functionality when

deflated; a vehicle with half or more flat tires will still be able to move at highway speed and a vehicle with all tires flat will still be able to move at street speed. Also, each flat tire only imposes a -1 penalty to Drive checks. In order to enjoy these benefits, all tires on a vehicle must be runflat ones.]

[Puncture-resistant runflat tires combine the advantages of the two previous types.]

Weapon Mounts

Weapon mounts are the variable systems used for placing weapons on vehicles. They include fixed and swivel mounts, turrets that form a superstructure protecting both weapon and gunner and pylons which hold missiles, bombs and other heavy ordnance. Some of them are concealable until used, offering subtlety and an advantage that may take the enemy by surprise.

[Each weapon to be placed on a vehicle must be placed on a weapon mount. Each weapon mount needs a different gunner to handle it, unless the weapons it contains are rigged to the pilot's controls, the gunner's controls or to a remote control platform. A weapon mount can hold multiple weapons, but they can't be fired simultaneously unless they're fire-linked.]

[Fixed mount: The most basic type of weapon mount, a fixed mount can only fire in one fire arc, selected when the mount is installed.]

[Concealed fixed mount: This performs like a fixed mount, but the weapon is built inside the vehicle and fires through a small port which opens and closes. It is entirely concealable until used, but takes up one softpoint (in addition to those needed by the weapons it holds).]

[Swivel mount: A swivel mount is an improvement over the fixed mount, since the weapon can be rotated to

cover more fire arcs. It is able to fire in 3 fire arcs, selected when it is placed.]

[Partial turret: Like a swivel mount, a partial turret can fire in 3 fire arcs, but it also provides the gunner with total cover and the weapon with three-quarters cover. However, installing a partial turret takes up one of the vehicle's hardpoints, in addition to those needed by the weapons.]

[Full turret: A full turret performs like a partial turret, but can fire in all 4 fire arcs.]

[Pop turret: A pop turret is an option that can be added to a partial or full turret. A pop turret retracts into the vehicle when not needed, thus it is entirely concealable. Its only disadvantage is that it takes up more space: instead of one hardpoint, a pop turret takes up one hardpoint and one softpoint or 2 hardpoints.]

[Missile pylon: Missile pylons are the only weapon mounts that can accept rockets (apart from missile bays). They must either be rigged to the pilot's controls or to a remote control platform and can fire in one arc. Pylons can take rockets with any targeting system except from semi-automatic tracking and do not require additional equipment for these targeting systems to function. After their rockets are fired, they can be loaded with new ones (loading a rocket on a pylon takes one turn). A light missile pylon takes up one hardpoint and can mount up to 4 light rockets (the rockets don't take additional hardpoints or softpoints). A heavy missile pylon also takes up one hardpoint and can mount up to 2 heavy rockets.]

[Missile bay: Missile bays function like pylons, but the rockets are stored inside the vehicle and are fired through a port that opens and closes. A missile bay is entirely concealable until used but takes up one hardpoint and one softpoint or 2 hardpoints instead of only one hardpoint.]

VEHICULAR WEAPONRY

Weapon	Damage	Critical	Damage Type	Range Incr	Rate of Fire	Magazine	Size	Purchase DC	Restriction
Water cannon	2d6 (non-lethal)	--	Bludgeoning	15 ft	S, A	--	H	15	--
Autocannon, 20mm	4d10	19-20	Ballistic	150 ft	A	Linked	G	32	Mil
Autocannon, 25mm	4d12	19-20	Ballistic	150 ft	A	Linked	G	35	Mil
Autocannon, 30mm	5d12	19-20	Ballistic	150 ft	A	Linked	G	38	Mil
Cannon, 120mm	10d12	--	Ballistic or Concussion	300 ft	S	Internal	G	38	Mil
Cannon, 105mm	8d12	--	Ballistic or Concussion	300 ft	S	Internal	G	36	Mil

[**Water Cannon:** Anyone hit by a water cannon's jet must make a DC 15 Strength check or be knocked prone. Creatures of Huge or greater size are immune to this effect.]

[**Cannon, 105 mm or 120 mm:** because of their great size, cannons require 2 hardpoints to be mounted on a vehicle. They may fire high explosive, sabot or canister rounds. High-explosive shells are not especially good against armor, but they explode with a 50 ft burst radius, inflicting concussion damage. Sabot shells are long, aerodynamic darts made from tungsten carbide. While not explosive, they have superior armor-penetrating capabilities. They inflict ballistic damage and will ignore up to 25 points of ballistic resistance or hardness the target has.

Canister shells are strictly anti-personnel. They contain up to 10,000 nail-sized flechettes that travel in a wide path, probably decimating entire platoons. When a canister shell is fired, everyone in a cone that starts from the cannon's muzzle and extends 300 ft (with 100 ft diameter at its end) takes 4d10 ballistic damage (half with a successful DC 15 Reflex save). A canister shell inflicts 50% secondary damage but doubles the ballistic resistance of an armor or the hardness of an object.]

[**Autocannon, 20 mm, 25 mm or 30 mm:** These multi-barreled weapons follow the rules for gatling guns. The rounds they fire are not explosive, but they're nevertheless called cannons because of their large caliber.]

SECTION FIVE

HI-TEK

TOOLS OF THE TRADE

Antibiotics

Mankind's main weapons against bacterial diseases, antibiotics come in many different forms and compositions. Each of these substances is usually effective against certain bacterial families only. Fortunately, the advancements in genetic technology have allowed antibiotics to be synthesized according to the chemical structure of the bacteria they are meant to combat, thus enabling mankind to remain one step ahead of the ever present and mutating bacteria.

[The appropriate antibiotic will provide a +5 chem. Bonus to Fortitude saves against a bacterial disease for one day. A character can even take the antibiotic beforehand as a precaution if he believes he'll be exposed to a disease. Viral diseases are unaffected by antibiotics.]

Anti-intruder Laser

A common device in many high-security areas, this alarm uses a low-power infrared laser beam to guard against intruders. Invisible to the eye, the laser beam sounds the alarm when it is interrupted by the passage of a person or object through it.

[Anti-intruder lasers come in grades. Even the slightest touch of the beam will set off the alarm. The laser beam is only visible in infrared vision or by using a snoop spray. Disabling the laser requires a successful Disable Device check with DC 25 + 2 per grade.]

Authorization Scanners

These security devices are used to restrict access to sensitive areas to authorized personnel only. This is accomplished by establishing the identity of the individual requesting access through analyzing a unique feature and comparing it to an existing copy. The following types of authorization scanners exist:

- **Biometric:** *Biometric scanners are the most expensive but also the most secure, since they per-*

form a full body scan and it's impossible to create a counterfeit.

• **Card:** *These devices require the person to prove his authorization by inserting the appropriate key-card. Although quite secure on their own, they have the innate flaw that a keycard can be stolen from its rightful owner, so they're usually found in combination with another type of scanner.*

• **Handprint:** *Handprint scanners analyze the prints of the entire hand of the person requesting authorization. They are harder to fool than thumbprint scanners, but also more expensive.*

• **Retinal:** *Retinal scanners use a low-power laser beam to scan the retina of a person. They are considered very secure because making a counterfeit is quite difficult.*

• **Thumbprint:** *These devices scan a person's thumbprint. They are outdated and provide the least security, but low-security sites prefer them because they're cheap.*

• **Voice:** *Voice scanners are frequently used along with other scanners to provide added security. They are not very reliable because the advances in voice analysis and reproduction technology can easily provide means of bypassing them.*

[Authorization scanners come in grades. Bypassing a scanner by tampering with it requires a successful Disable Device check with DC 25 + 2 per grade. The other option is to fool a scanner by using a counterfeit. Of course, the quality of the counterfeit can not be checked until the device actually confirms it.]

[Biometric: Biometric scanners cannot be fooled by counterfeits.]

[Card: A card scanner may be fooled by using the real keycard of an authorized individual or a copy. To make a copy, you need access to the prototype and a successful Craft (electronic) check with DC 25 + 2 per grade of the scanner. The process takes d6+2 hours.]

[Handprint: A handprint scanner may be fooled

Item	Size	Weight	Purchase DC	Restriction
Antibiotics	--	--	3	--
Anti-intruder laser, grade 1-5	Small	1 lb	15+grade	--
Authorization scanner, biometric, grade 1-5	Large	40 lb	20+gradex2	--
Authorization scanner, card, grade 1-5	Small	2 lb	8+grade	--
Authorization scanner, handprint, grade 1-5	Small	2 lb	14+grade	--
Authorization scanner, retinal, grade 1-5	Medium	5 lb	17+gradex2	--
Authorization scanner, thumbprint, grade 1-5	Small	2 lb	12+grade	--
Authorization scanner, voice, grade 1-5	Small	2 lb	12+grade	--
Binoculars	Tiny	1 lb	14	--
Blix	--	--	4	III
Briefcase, bulletproof	--	--	13	--
Briefcase, concealed firearm	--	--	As firearm+2	Res
Briefcase, incinerator	--	--	8	--
Briefcase, secure	--	--	12	--
Bug scanner	Tiny	1 lb	9	--
Cell phone suit, grade 1-3	Tiny	0.5 lb	9+gradex3	--
Cell phone, regular, grade 1-3	Diminutive	0.25 lb	8+grade	--
Chemical detector	Medium	4 lb	12	--
Clarity	--	--	6	III
Copy glove	Tiny	0.1 lb	22	III
Copy shades	Tiny	0.1 lb	24	III
Data gauntlet, Neptune	Small	2 lb	16	--
Data gauntlet, Asclepius	Small	2 lb	21	--
Data gauntlet, Jupiter	Small	2 lb	19	Mil
Data gauntlet, Vektron Engineering	Small	2 lb	18	--
DMSO	--	--	4	--
Encryptor module, grade 1-5	Tiny	0.1 lb	14+gradex4	Res for grade 4-5
Flexicam	Tiny	1 lb	11	--
Heat scanner, grade 1-5	Tiny	1 lb	18+grade	--
Imaging goggles	Tiny	0.5 lb	15	--
Imaging shades	Tiny	0.1 lb	18	--
Imaging, flare suppression	--	--	13	--
Imaging, magnetic	--	--	22	Res
Imaging, sonic, grade 1-5	--	--	20+grade	--
Imaging, starlight	--	--	17	--
Imaging, telescopic	--	--	14	--
Imaging, thermographic	--	--	18	--
Implant scanner	Medium	5 lb	15	--

much like a thumbprint one, but in this case the membrane needs to cover the entire hand. Such a counterfeit is harder to create (DC 25 for the skill check, d6+2 hours to complete) and a set of prints is harder to find. The police holds no records on handprints and they can only be taken from an object held by the entire palm (eg a large cup, but not a pencil).]

[Retinal: A retinal scanner may be fooled by using a contact lens that mimics the retina of an authorized

individual. To create such a lens, you need to know the structure of that individual's retina (either through a file or by scanning his retina with a scanner of your own) and make a successful DC 25 Craft (chemical) check. The construction process takes d6+4 hours.]

[Thumbprint: A thumbprint scanner may be fooled by a thin cellulose membrane placed over one's thumb that mimics the prints of an authorized individual. To create such a membrane, you need that individual's prints

Item	Size	Weight	Purchase DC	Restriction
Laser mike	Small	2 lb	13	Res
Microcam	Diminutive	--	14	Res
Microrecorder	Diminutive	--	8	Res
Microtracker	Diminutive	--	8	Res
Motion scanner, grade 1-5	Tiny	1 lb	15+grade	--
Pressure panel	Medium	5 lb	10	--
Redex	--	--	7	Mil
Shotgun mike	Small	2 lb	10	Res
Snoop spray	Tiny	0.5 lb	6	--
Stabil-X, regular	--	--	6	--
Stabil-X, super	--	--	10	--
Stimpatch, regular	--	--	4	--
Stimpatch, super	--	--	8	--
Synthetic blood	--	--	4	--
Tendorphin	--	--	5	Res
Thermashield cloak	Medium	1 lb	23	Res
Traumaject, regular	--	--	4	--
Traumaject, super	--	--	8	--
Ultrasound emitter, grade 1-5	Small	1 lb	13+grade	Res
Vectra	--	--	3	Res
Video feeder	Small	2 lb	11	Res
Vidphone	Small	2 lb	6	--
Voice reproducer	Tiny	1 lb	20	Res
White noise jammer	Tiny	1 lb	7	--

(either from a file or from an object he's held) and a successful DC 20 Craft (chemical) check. The construction process takes d4 hours.]

[**Voice:** A voice scanner may be fooled by using a voice reproducer.]

Binoculars

This set of binoculars digitally processes the image received and provides scaled magnification up to x24. They have an output cable port that can send the processed image to another device, like a video recorder. For an additional cost, binoculars can take various imaging systems.

[All binoculars have telescopic imaging. Up to two other imaging systems (apart from flare suppression, which doesn't take any significant space) may be added by paying separately for each one. However, after a set of binoculars is purchased no additional options may be added.]

Blix

One of the most addictive drugs ever developed, blix is a synthetic opioid several times more powerful than mor-

phine. It brings so great euphoria and pleasure as to be incapacitating; blix users fall into a semi-comatose euphoric state during which they don't register other stimuli, like pain, light or sound. Blix exists in two forms: a solution for injections or a pill to be ingested. The injected solution is faster-acting, but the end results are the same for both forms.

[Blix comes as a solution or a pill. The solution can be injected to someone as a full-round action and begins to affect the recipient after 3 rounds. The pill can be swallowed as a move action and affects the recipient after 10 minutes. If the recipient has received blix contrary to his will, he is allowed to make a DC 19 Fortitude save to resist its effects. On a successful save, the intense euphoric feelings inflict a -4 penalty on attack rolls, initiative checks and skill checks, but the recipient also gains damage reduction 2 against non-lethal damage (cumulative with an armor's resistance) and a +2 chem. Bonus to Fortitude saves made to avoid being stunned or knocked out by an attack (or lessen its stunning effects). If the saving throw fails or if the recipient doesn't wish to resist the drug, he is knocked out by the euphoria but gains damage reduction 4 against non-lethal damage as well as the +2

Addiction

Some drugs affecting the nervous system cause addiction – a fairly dangerous adverse effect in the long run. These substances have an Addiction Level (AL). This is the DC of the Will save which must be rolled every time the drug is taken. If the drug is taken regularly (at least once a week), the DC increases by one point per week (to a maximum of three times the original AL). If an entire week passes without taking the substance the DC is decreased by one (to a minimum of the original AL).

If any Will save is failed, the character becomes addicted to the drug and will relish it, desiring at least one dose each week whether it's for his benefit or not. An addicted character will generally go to great lengths to secure his dose and this may have a serious impact on his lifestyle. If he passes a week without a dose he suffers withdrawal: he loses one Wisdom point per 10 AL (or fraction thereof) and suffers a -1 penalty per 10 AL (or fraction thereof) to all skill checks until he can get a new dose. An addicted character can also suffer other detrimental effects whether he has a regular supply or not (the exact effects depend on the drug).

An addicted character doesn't make Will saves while taking the drug; instead, he gets one chance each week to overcome his addiction (this is also represented by a Will save). A successful save means that the character manages to free himself from the drug's insidious influence.

save bonus.]

The effects of blix last for d10+10 minutes. During this period, the recipient should not be informed how many hit points he's lost. If his Fortitude save is successful, the Gamemaster should only inform the player when his character has lost 25%, 50% or 75% of his hit points, but not the exact amount, keeping a secret count.]

[Blix has addiction level 20 and those becoming addicted to it lose 6 Wisdom and 2 Constitution points until they overcome the addiction.]

Briefcase Options

The standard briefcase is a classic, useful tool for carrying documents or small objects. For an additional cost, it can be modified in a number of interesting ways.

- **Bulletproof:** This modification adds a harder metallic casing as well as an anti-ballistic liner.

- **Concealed firearm:** A small firearm placed inside the briefcase and operated by an external button. The weapon fires through a port that slides open when the button is pressed. Although a "weapon briefcase" has poor accuracy, it is preferred by people in need of subtle firepower; most select automatic weapons.
- **Incinerator:** This modification adds a small but powerful magnesium torch that can incinerate within moments any document and severely damage any object placed inside the briefcase.
- **Secure:** A secure briefcase has a high-quality lock that is very difficult to bypass as well as a vibration detector which can be set to sound an alarm if the briefcase is moved or if cutting instruments are used on it. These system can be rigged to an incinerator to destroy the briefcase's contents if its integrity is compromised.

[The following options can be added to a briefcase by paying the Purchase DC for each one separately.]

[Bulletproof: A bulletproof briefcase has hardness 10, but its weight is increased by 2 lb. The owner can also use the briefcase as a shield, receiving a +2 cover bonus to Defense, but this requires the briefcase to be held with both hands.]

[Concealed firearm: A briefcase can mount any firearm or Medium or smaller size. The range increment of the weapon is halved, but only for the purpose of determining range penalties. Reloading the weapon requires first opening the briefcase.]

[Incinerator: The incinerator is activated by quickly turning the briefcase's key three times counterclockwise (a move action). It will instantly destroy paper, melt plastics and scorch metallic items (which suffer d6 damage). The heat-proofed interior of the briefcase doesn't suffer any harm from the thermal blast.]

[secure: A secure briefcase has a high-quality lock and a vibration detector that can be activated by turning the briefcase's key counterclockwise. Both the lock and the detector are DC 30 to disable. When activated, the vibration detector will sound an alarm if the briefcase is disturbed (picked up, moved, hit, pierced by cutting instruments etc). If the briefcase also has an incinerator, it can be set to destroy its contents if someone attempts to meddle with it. The incinerator is activated when the vibration alarm is set off or when a skill check to disable the lock or the detector fails by more than 5

points.]

Bug Scanner

Made for those valuing their privacy, a bug scanner is a portable device able to detect microcams, microrecorders and any other device capable of transmitting information.

[A bug scanner has an effective range of 30 ft.]

Cell Phone

A modern mobile phone is capable of receiving and transmitting sound and video, organize your professional and personal life as well as connect to the hivenet. Cell phones can interact with other electronic devices through cable, infrared or remote ports and some are capable of functioning as simple computers.

[Cell phones come in three grades. A cell phone has one cable, one infrared and one remote port of grade equal to its own for connecting to other devices.]

[Cell phone suits are a combination of cell phone and compact computer. Although they can't match pure computers in power, they are quite handy and useful. A cell phone suit is treated as a computer with Speed, Active memory and Storage Memory slots equal to twice its grade, but it can't be upgraded with new processors, active memory cards or storage media.]

[A cell phone can be used to connect to the hivenet using satellite uplink bandwidth.]

Chemical Detector

This briefcase-sized device is used to detect traces of drugs, explosives and other restricted chemical substances. It is a common sight in airports, government buildings and other high-security areas.

[A chemical detector discovers any trace of drugs and explosives (including bullet propellants) within 30 ft, unless the substance is in an airtight container.]

Clarity

Clarity is a complex intellect booster, illegal because of its long-term adverse effects. It provides the recipient with a feeling of emotional detachment, where cold reasoning is amplified and emotions are suppressed. Frequent use of clarity will lead to a permanent emotional dulling, turning

the user into a coldly logical being. Even so, clarity is frequently used by hackers, scientists and anyone needing to reach a decision freed from emotional bias.

[Clarity comes in the form of a pill that can be swallowed as a move action. It begins to affect the recipient 10 minutes after it is imbibed and its effects endure for d6+8 hours. While effective, clarity will provide a +4 chem bonus to Intelligence. However, it also inflicts a -4 penalty to Charisma and a -2 penalty to Sense Motive checks.]

[A clarity user needs to make a Will save each time a pill is taken. The DC starts at 5 but increases by 1 every time a new pill is taken. If a saving throw fails, the emotional detachment becomes more or less permanent and the user suffers a permanent -2 penalty to Charisma and a -1 penalty to Sense Motive checks. The DC for the Will saves resets back to 5 if the user takes no clarity for at least 2 months.]

Copy Gloves

This highly illegal device looks and feels like a normal leather glove, but actually contains hundreds of sensors which scan the prints of anyone shaking hands with the wearer. The information retrieved can then be used to create counterfeits for handprint or thumbprint scanners.

Copy Shades

Copy Shades resemble normal shades but contain a miniaturized high-resolution digital camera designed to take a picture of the retina of a person standing face-to-face with the user. The picture can then be used to create a counterfeit for retinal scanners.

[To use copy shades, you must be standing face-to-face with the target and within 1 ft of him. Eye contact is required, but not for more than a fraction of a second. You can't copy the retina of someone wearing shades as well.]

Data Gauntlets

Data gauntlets or simply "gauntlets" are a specialized category of devices taking their name from the medieval armored gauntlets they resemble. Securely strapped on the user's forearm (and sometimes extending to the palm and fingers, covering them), they provide easy and ready access to their features. Each gauntlet is made to suit a specific purpose and contains a simple, specialized computer along with the necessary software and devices for

accomplishing it.

[Data gauntlets can be worn over clothes, armored bodysuits or vests, but not over armored full suits or SAAS. Each contains a simple computer dedicated to performing the function the gauntlet was designed for; the computer cannot be used for other tasks, hence no statistics (speed, active memory, storage memory) are given for it.]

Asclepius

The Asclepius data gauntlet is an invaluable tool for the modern medical doctor, especially for those operating in the field without access to much equipment. With its small computer running medical diagnostics program, the Asclepius offers several tools to assist a doctor in his work. The gauntlet extends to the user's palm and covers it with a soft, unrestricting glove containing sensors that can measure blood pressure, heart rate and temperature with only a touch on a patient. A small, retractable ultrasonic scanner can be extended to provide an in-depth look on the body's internal cavities and organs (with the results displayed on the gauntlet's display screen). The gauntlet also contains equipment for quick blood tests and a small defibrillator that can work miracles in the hands of a trained user.

[The Asclepius gauntlet provides a +4 equipment bonus on all Treat Injury checks made by the user. The gauntlet's internal defibrillator increases this bonus to +6 when the wearer uses the Emergency Medicine feat.]

Jupiter

The Jupiter data gauntlet is intended for combat operatives, often arming small special squads. Its dedicated computer runs the TacOps tactical combat software on a small display screen that can be connected to a HUD screen or an optijack for better operation. Each gauntlet contains a transponder emitting a constant signal at a prearranged frequency. This signal is used to display on the screen all friendly units in the vicinity and can also be used along with "smart" firearms (equipped with an optical targeting module) to prevent squad members from being hit by friendly fire. A GPS receiver is standard to the gauntlet; more advanced versions can take motion or heat scanners to detect and monitor the enemy.

[A Jupiter gauntlet comes along with a dedicated computer running CombaTech TacOps grade I (see the Lock and Load section) on a display screen that may be connected through a cable port with HUD goggles or an opti-

jack. Higher grades of TacOps may also be used by the computer, but have to be purchased separately. The transponder on the gauntlets is used to display all friendly units using gauntlets within one mile of the user as "blips" on the display screen. If the user is armed with a firearm equipped with an optical targeting module, the weapon will refuse to fire against someone wearing another gauntlet with a transponder using the same frequency (this feature may be turned off by the user). This has two effects: 1) it negates the -4 attack penalty when firing at an opponent engaged in melee with an ally wearing a gauntlet, 2) if the user performs an autofire attack any friendlies wearing gauntlets inside the covered area are not hit (they automatically make their saving throws).]

[All Jupiter gauntlets have a GPS receiver. They can also take motion and heat scanners of any grade (with any targets detected displayed on the screen). These must be purchased separately and can be added to a gauntlet at a later time.]

Neptune

Made for the professional diver, the Neptune data gauntlet constantly monitors depth, the strength of water currents, temperature and has a diving computer that automatically calculates the gas mixtures required for safe performance at each different depth. A powerful flashlight is integrated in the gauntlet for emergency use and more advanced versions can take a small sonar to monitor the diver's surroundings. The greatest innovation of the Neptune gauntlet is the built-in nitrogen extraction system: an instrument in the form of a thin needle constantly extracts the excess nitrogen from the diver's blood, eliminating the need for depressurization and the fear of depth cramps.

[A Neptune gauntlet contains a flashlight and eliminates depth cramps and the need for depressurization after diving to great depths. The gauntlet can also take a sonar (treat as a motion scanner that only works underwater) of any grade that displays any movement in the surrounding area on a small display screen; through a cable port it can be connected to HUD goggles or an optijack for easier viewing. The sonar must be purchased separately and can be added to the gauntlet at a later time.]

Vektron Engineering Gauntlet

The Vektron gauntlet is a portable device intended to help engineers assess the damage suffered by a structure or to detect internal stresses and weak points, all thanks to the high-resolution ultrasonic scanner it is equipped with. [A character with a Vektron gauntlet must be within 30 ft of an object to scan it. Scanning an object takes one round per size category, for example a Huge object takes 6 rounds to be scanned. Scanning an object can reveal two kinds of information. Firstly, it can reveal how much damage the object has suffered (if it has taken any damage). Although it cannot give an exact figure, it can inform the user whether the object has lost 25%, 50% or 75% of its hit points. Secondly, it can detect any weak points in the internal structure of an object (almost all objects have at least one weak point due to internal stresses or anomalies). These weak points can then be hit by weapons (they usually have +8 Defense compared to that of the object) or be affected by explosive charges. Any damage on a weak point over the object's hardness is doubled.]

DMSO

DMSO stands for dimethylsulfoxide and is a chemical used for thrombolysis and to ease the pain of bone diseases. Its most interesting property is that it will easily pass through skin and muscle tissues, carrying with it whatever can be included in its solution. This property has led to its malicious use along with toxic agents, in order to transfer them directly into the blood stream.

[A poison solved in DMSO becomes a contact one, while retaining the same save DC. The mixture can be applied to door handles, gloves or any other surface, although DMSO will evaporate within one hour.]

Encryptor Module

This device can be added to any transmission device (cell phones, vidphones, radios etc) and encrypts its transmissions to offer privacy and security. To be of use, the receiving device must also have an encryptor module or at least a decryptor program.

[An encryptor module comes in five grades and can be installed in any device capable of transmitting data. Any data transmitted by the device will be encrypted as if by an encryptor program (see the Silicon Wizardry section)

of equal grade.

Flexicam

This is a miniature camera mounted on the end of a flexible optical fiber "stalk". It's extremely useful for peeking behind doors, inside briefcases or other containers etc.

[A flexicam has a cable port for sending its video output to another device, like HUD goggles or an optijack. When used to peek behind a door, those at the other side of the door get a chance to spot the stalk by making a DC 20 Spot check. If a flexicam is used to examine the inner workings of a lock, electronic device or explosive mechanism, it provides a +2 circumstance bonus to any Disable Device or Demolitions check made to disable it.]

Heat Scanner

This device uses thermographic technology to detect heat sources in the surrounding area, even those concealed by cold obstacles. It can then display any heat sources detected as blips on a display screen or be rigged to an alarm.

[Heat scanners come in grades. A heat scanner will detect anything radiating heat (fire, living creatures, vehicles with hot engines) within 50 ft per grade, unless it is concealed behind an obstacle more than one ft thick. Its sensitivity level may be adjusted to ignore insignificant heat sources (like vermin or small animals). Disabling a heat scanner requires a successful Disable Device check with DC 25 + 2 per grade.]

Imaging Goggles

Goggles are head-worn eyewear containing a number of imaging systems that augment the user's sight. Although bulky and unattractive, they are invaluable to professional soldiers and security personnel. All goggles feature a heads-up display (HUD) that can project video and data received from other devices and superimposed on the user's field of vision (a poor man's alternative to an optijack implant). Goggles can also receive imaging systems for an additional cost.

[All imaging goggles feature a HUD screen with a cable port for connecting to external devices. Up to two imaging systems (apart from flare suppression, which doesn't take any significant space) can be added to goggles by paying for each one separately. However, after a set of

goggles are purchased no additional options may be installed at a later time.]

Imaging Shades

Imaging shades serve the same function as goggles but the use of miniaturization technology allows them to look exactly like normal shades, being practical and subtle at the expense of a higher cost.

[Imaging shades work like imaging goggles, but can have only one imaging system (apart from flare suppression, which doesn't take any significant space). Any imaging system added to shades has +4 to its Purchase DC.]

Imaging Systems

Imaging systems are mediums used by many devices, like binoculars or imaging goggles, to extend the sensory range of human vision to other modes or spectrums.

- **Flare suppression:** *This is essentially a filter that automatically adjusts the level of light received to protect the user from being blinded by bright flashes of light.*
- **Magnetic:** *Magnetic resonance imaging, currently cutting-edge for portable applications, is able of "piercing" solid obstacles, like doors or walls, to reveal what lies beyond. This requires proximity to the obstacle and the system isn't capable of seeing through very thick or metallic obstacles.*
- **Sonic:** *Sonic imaging uses a refined, highly detailed form of echolocation. The user can literally see sound, functioning as a sonar that can pierce darkness and most other visibility obstacles. The echolocation's effective range is unfortunately limited.*
- **Starlight:** *Starlight imaging amplifies ambient lighting to provide effective vision in darkness. It is however, useless in absolute darkness.*
- **Telescopic:** *This system can magnify the image received up to 24 times.*
- **Thermographic:** *This system provides the ability to see in the infrared spectrum of light, ie heat. It functions extremely well, even in total darkness, although the user can only see sources of heat (living creatures, vehicles with hot engines etc).*

[Imaging systems can be installed to any device designed to accept them by paying the Purchase DC for them.]

[**Flare Suppression:** This system provides flare

suppression.]

[**Magnetic:** magnetic imaging enables the user to see through a non-metallic object up to 1 ft thick, if he is within 5 ft of it. The user first needs to take a move action to adjust the system to the proper settings to see through an object. Such a thing negates any concealment due to foliage. Magnetic imaging doesn't enhance the user's optical capabilities, so he will still not be able to see through darkness. When seeing through an obstacle, the user can't use infrared vision (thermographic imaging), sonic or starlight imaging.]

[**Starlight:** The user can see in darkness three-quarters as far as in daylight. Starlight imaging will reduce concealment due to darkness by two degrees (for example, someone in neartotal darkness will get one-half and someone in shadows won't get any concealment). It doesn't give any benefit in total darkness, however. Seeing any bright flash (like that of a flash grenade) through starlight imaging inflicts a -2 penalty to the Fortitude save made to avoid being blinded.]

[**Sonic:** Sonic imaging systems come in grades; each grade has an effective range at which sonic imaging functions. The user is able to see anything inside this range regardless of darkness, fog or smoke, albeit in monochrome. Opponents the user attacks lose any concealment due to these factors.]

Grade	Effective Range
1	100 ft
2	200 ft
3	300 ft
4	500 ft
5	1,000 ft

[**Telescopic:** The distance penalty to Spot checks when using telescopic imaging to examine an item or person is reduced to -1 per 50 ft. Telescopic imaging doubles the range increment of any weapon, but only for the purpose of determining range penalties.]

[**Thermographic:** Thermographic imaging provides infrared vision and makes the user capable of seeing any heat sources within his line of sight regardless of the level of darkness, smoke, fog or foliage; the system doesn't help in seeing cold objects or hot targets concealed by cold objects. Thermographic imaging negates any concealment due to darkness, smoke, fog or foliage for the targets it can detect. The smoke generated by smoke grenades and other such equipment is "hot" and

will thus block infrared vision.]

Implant Scanner

This is a portable metal detector modified so as to be able to detect and identify cybernetic implants.

[An implant scanner can detect implants in the body of someone up to 30 ft away and identify them with 90% accuracy. However, implants built into a cyberlimb, cyber-eye or cyberear cannot be detected and the presence of an endoskeleton blocks the detection of any other implant in the target's body except from cyberlimbs.]

Laser Mike

This device is similar to a parabolic mike, but makes use of an invisible laser beam that reads the minute vibrations caused by sound over glass or plastics.

[A laser mike has an effective range of 5 miles, but you have to be able to bounce the laser beam off a window, mirror or similar glass surface within 30 ft of the conversation you want to spy on.]

Microcam

This is a miniature camera, smaller than a shirt button, that adheres chemically to any surface.

[A microcam broadcasts image and sound up to 5 miles away through a remote port. Its microbattery lasts for 2 days. Casually spotting a well-hidden microcam has DC 30. Searching for one has DC 20.]

Microrecorder

A microrecorder is a microscopic audio bug that adheres chemically to any surface. Its microbattery lasts for long, since the microrecorder is voice-activated and automatically switches off when there's nothing to record.

[A microrecorder broadcasts audio up to 5 miles away through a remote port. Its microbattery lasts for 20 days. Casually spotting a microrecorder has DC 40. Searching for one has DC 30.]

Microtracker

This minute transmitter adheres chemically to any surface and broadcasts a constant signal that can be used as a homing beacon.

[A microtracker has an effective range of 5 miles. Its

microbattery lasts for 20 days. Casually spotting a microtracker has DC 40. Searching for one has DC 30.]

Motion Scanner

This device uses ultrasonic emissions to detect any movement in the vicinity, although it cannot penetrate walls and other hard obstacles. Its sensitivity level can be set so as to ignore small targets like vermin or household animals.

[Motion scanners come in grades. A motion scanner is able to detect any movement made within 100 ft per grade, although not behind any wall or other solid obstacle. The DC of the Disable Device check to disable a motion scanner is 25 + 2 per grade.]

Pressure Panel

This resembles a normal floor panel (1x1 ft) but sets off an alarm whenever anyone or anything weighting more than 1 lb steps or is placed on it.

Redex

Redex is one of the first successful combat drugs secretly developed by the military. Its serious adverse effects prohibited its generalized use, but it performed rather well when administered to small groups of elite soldiers trained to handle it. A cocktail of substances rather than a single one, redex triggers hysterical strength and a burning rage exceeding reasoning. Soldiers on redex exhibit increased strength and endurance and, most importantly, an almost unbreakable morale since the rage effect makes the fight instead of flee. In some cases, this effect is amplified and results in a psychotic state where the recipient is unable to distinguish friend from foe; this is redex's most serious side-effect.

[A redex pill can be swallowed as a move action and begins to affect the recipient 10 minutes later. The recipient receives a +2 chem bonus to Strength and Constitution and a +8 chem bonus to Will saves against fear. While under the effects of the drug, the recipient is unable to retreat from a fight on his own will, battling to his death or incapacitation. These effects last for 2d10+40 minutes.]

[A character has to make a DC 10 Will save every time he takes a redex pill. If this saving throw fails, he becomes psychotic for the duration of the drug's effects. A psychotic redex user receives the usual benefits of the

drugs but is incapable of distinguishing friend from foe and under the rage effect will invariably attack the closest person with the intent of killing him.])

Shotgun Mike

This is a shotgun-shaped microphone that can pick up a whisper at a large distance and enhance it to normal, clear sound.

[To use a shotgun mike, you must point it towards the sound source you want to enhance. The mike has an effective range of 500 ft if no obstacle lies between you and the sound source. Every 1 ft thickness of interfering obstacles halves this range. For example, a mike must be within 62.5 ft to enhance a sound source located behind three 1-ft thick walls or one wall with 3-ft thickness. It cannot enhance a sound source located behind 5+ ft thick obstacles.]

Snoop Spray

When sprayed in an area guarded by anti-intruder lasers, the cloud of particles contained in a snoop spray will reveal their beams to the eye for a short amount of time.

[A snoop spray canister contains 20 "shots". Each shot can reveal to the eye the beam of any anti-intruder laser in a 3x3 ft section for one round.]

Stabil-X

Stabil-X is an injected solution designed to stabilize the condition of a severely injured person until more helpful treatment can be administered. The super stabil-x is usually more effective but has serious adverse effects that can lead to permanent damage, so it is reserved for desperate situations.

[Stabil-X can be administered to a dying person by someone taking a full-round action. The regular stabil-x will grant a +2 chem. Bonus to Fortitude saves made by the dying character to become stable for one turn. A super stabil-x will provide a +4 chem. Bonus for the same duration. However, the recipient of super stabil-x needs to make a DC 15 Fortitude save one day later. If this saving throw fails, he permanently loses a Constitution point.]

Stimpatch

A stimpatch is a small adhesive patch containing synthetic

stimulants absorbed through skin pores into circulation. It is designed to banish fatigue and give the recipient that little extra push he needs. However, fatigue usually returns augmented when the stimulants are metabolized, so stimpatches are only a temporary relief and not a substitute for natural rest.

[Using a stimpatch is a move action and the effects appear one round later.]

[The regular stimpatch removes the fatigued condition from the recipient or reduced the exhausted condition to merely fatigued. Additionally, it provides a +1 chem. Bonus to Strength and initiative for d6+10 rounds. After this duration elapses, the recipient needs to succeed in a DC 12 Fortitude save or become exhausted and take one point of temporary Constitution damage.]

[The super stimpatch works like the regular one, except that it completely removes both fatigued and exhausted conditions and the Strength and initiative bonus it provides is +2. However, the DC for the Fortitude save is 15.]

Synthetic Blood

Genetically engineered blood has become a standard in modern medicine, replacing natural human blood which was hard to come by and ridden with diseases. Its administration can save lives, but must be done carefully and preferably in a hospital.

[Each pack of synthetic blood must be administered over the course of one turn; this requires a DC 10 Treat Injury check. A pack can restore d6 hit points (lost to an attack causing blood loss), but synthetic blood isn't capable of healing more than 25% of a character's lost hit points; the rest must be recovered through other means or natural healing. A dying character must first be stabilized before he can benefit from synthetic blood.]

Tendorphin

This is a mixture of synthetic endorphins which act like morphine, but without any serious side-effects or addiction. An excellent painkiller, tendorphin is sometimes used by thugs to resist pain and shock from wounds, gaining a seemingly superhuman ability to remain conscious and standing despite injuries.

[Tendorphin can be injected into someone as a full-round action and takes effect 3 rounds later. Tendorphin will provide damage reduction 2 against non-lethal damage

(cumulative with an armor's resistance) and a +2 chem. Bonus to Fortitude saves made to avoid being stunned or knocked out by an attack (or lessen its stunning effects). However, a character under the effects of tendorphin should not know how many hit points he's lost. The Game-master should only inform the player when his character has lost 25%, 50% or 75% of his hit points, but not the exact amount, keeping a secret count. The effects of tendorphin last for d3 hours. The drug has addiction level 5 and those becoming addicted lose 4 Wisdom points until they overcome the addiction.]

Thermashield Cloak

A thermashield cloak is a full bodysuit along with a mask, designed with an exterior layer that provides complete thermal insulation, masking the wearer's heat signature, and an internal layer of thermal-conducting fibers that channel body heat towards a small chemical tank worn as a backpack. A thermashield cloak makes the wearer invisible under infrared vision and undetectable by heat scanners. The cloak performs well for as long as the chemical tank can function as a dump for the body heat shed by the wearer. If the tank's capacity is exhausted, it must quickly be replaced or the cloak removed else the wearer will suffer from the accumulated heat and eventually die from apoplexy.

[When wearing a thermashield cloak, the wearer has total concealment against anyone using infrared vision (thermographic imaging) and cannot be detected by heat scanners. A thermashield cloak can be combined with any armor except from bodysuits. The chemical tank acting as a dump for the wearer's shed body heat can function for 2 hours of continuous use. A new tank costs Purchase DC 12. If the cloak is worn without a working tank, the wearer is treated as if he's under searing heat (although he can't use the Survival skill to modify his saving throw).]

Traumaject

This life-saving device comes in the form of an easy-to-use syringe with a pop-out needle operated with the press of a button. It injects a mixture of drugs including synthetic coagulants and artificial blood, to assist in emergency treatment of injuries.

[A traumaject shot can be administered as a move action. The chemicals take effects one turn after their administration.]

[A regular traumaject shot restores d4+4 lost hit points. A super traumaject shot restores d8+4 lost hit points, but one hour after its administration the recipient must make a DC 12 Fortitude save or take one point of temporary Constitution damage.]

[A dying character receives no benefit from a traumaject shot; no hit points are recovered. Moreover, a character can only benefit from one traumaject shot (either regular or super) per 24 hours.]

Ultrasound Emitter

A handheld device, the ultrasound emitter attempts to fool a motion scanner by transmitting a similar signal. Even with an emitter in hand, someone must be extra careful when moving through a motion scanner field.

[Ultrasound emitters come in grades. A character attempting to move through a motion scanner field using an ultrasound emitter must move at a rate of no more than 5 ft per round. A DC 20 Move Silently check must also be made each round of movement; on a failure the motion scanner detects the character. This check receives a +2 equipment bonus per grade of the emitter but also suffers a -2 penalty per grade of the scanner. Attempting to move at a speed of 10 ft per round increases the DC to 30; moving any faster will certainly set off the scanner.]

Vectra

Vectra is the latest meta-amphetamine. It has mild anti-depressant qualities and acts as a powerful boost to physical and mental endurance.

[Vectra can be swallowed as a move action. It takes effect 30 minutes after being imbibed and lasts for d6+15 hours. While effective, Vectra provides the recipient with the Endurance feat or doubles its benefits if he already has it. Moreover, it provides a +1 chem. Bonus to Intelligence. After its effects end, the recipient becomes exhausted.]

[Vectra has addiction level 10. Characters addicted to this drug lose 2 Intelligence and 2 Strength points until they overcome the addiction.]

Video Feeder

This small device can hijack a security camera, sending through it a pre-recorded image instead of what the camera normally registers.

[To place a video feeder on a security camera, you need

to succeed in a DC 15 Craft (electronic) check. The camera will then display the pre-recorded image instead of any suspicious activities.]

Vidphone

This is the standard modern phone equipped with a small camera and display monitor and having a cable port that can make use of larger display equipment. All transmissions are relayed through the hivenet to their destination.

Voice Reproducer

This device is commonly used to defeat voice authorization checks by imitating the voice of an authorized user. Its voice reproduction capabilities can also be put to many other uses. A voice reproducer is basically composed from three parts or modules: the recording, the analysis and the reproduction module. The device can record someone's voice, analyze the voice patterns used and then successfully imitate it (although not flawlessly) to say almost anything.

[A voice reproducer can be used to imitate the voice of someone you have recorded. The quality of the imitation depends on the length of the voice you have recorded for analysis. Ten seconds are usually enough to fool a voice authorization scanner, but fooling live persons during a conversation is more difficult because of the wealth of words and expressions used. For each minute of recorded voice available for analysis, other people have a -1 penalty (to a maximum of -5) to any check made to realize the trickery.]

White Noise Jammer

A jammer is a small device generating random noise that desensitizes any nearby audio recording equipment, offering privacy to a conversation. Because the noise is generated according to random patterns, it cannot be filtered.

[When activated, a jammer will offer privacy to any conversation made within 15 ft of it, countering any microrecorder or microcam (at least its audio recording capability) as well as shotgun and laser mikes.]

SECTION SIX

WHAT IT TAKES

NEW TALENTS

Strong Hero Talents

Combat Sense Talent Tree

The Strong Hero has a combat experience that enables him to quickly evaluate dangerous situations and respond to them.

Combat Sense: The Strong Hero has a Combat Sense pool, containing points he can use to augment several combat actions. He is able to expend a point from the pool in order to: 1. Add a +1 insight bonus to an attack roll, 2. Add a +1 insight bonus to his Defense against the next attack, 3. Add a +1 insight bonus to a Reflex save. He can use these points anytime during the round, even outside his normal sequence of action, but always before the actual die roll is made. The pool has 3 points and regenerates at the beginning of each new combat round, but the Strong Hero can't spend more than one point per round.

Improved Combat Sense: The Strong Hero's Combat Sense pool has 5 points and he can spend up to 2 points per round.
Prerequisites: Combat Sense.

Advanced Combat Sense: The Strong Hero's Combat Sense pool has 10 points and he can spend up to 3 points per round.
Prerequisites: Combat Sense, Improved Combat Sense.

Strategic Mind: The Strong Hero is able to use points from his Combat Sense pool to augment the attack rolls, Defense or Reflex saves of an ally. The ally must be able to see or at least hear the Strong Hero to receive any benefit.
Prerequisites: Combat Sense.

Penetration Talent Tree

The Strong Hero knows an armor's weak points and how

to use them in order to penetrate its protection.

Penetration: By taking a -1 penalty to his attack roll, the Strong Hero can ignore 1 point of resistance from the armor his opponent is wearing. The Strong Hero ignores the resistance that matches the damage type of the weapon he's using. This talent doesn't work against an object's hardness.

Improved Penetration: By taking a -2 penalty to his attack roll, the Strong Hero can ignore 2 points of resistance from the armor his opponent is wearing. The Strong Hero ignores the resistance that matches the damage type of the weapon he's using. This talent doesn't work against an object's hardness.
Prerequisites: Penetration.

Advanced Penetration: By taking a -4 penalty to his attack roll, the Strong Hero can ignore 4 points of resistance from the armor his opponent is wearing. The Strong Hero ignores the resistance that matches the damage type of the weapon he's using. This talent doesn't work against an object's hardness.
Prerequisites: Penetration, Improved Penetration.

Fast Hero Talents

Armored Maneuvers Talent Tree

The Fast Hero retains his natural grace and flexibility even in restricting armor.

Armored maneuvers: Any light or medium armor worn by the Fast Hero has its Maximum Dexterity bonus increased by 2 points and its Armor Penalty halved.

Improved Armor Maneuvers: Any heavy armor worn by the Fast Hero has its Maximum Dexterity bonus increased

Why Not Advanced Classes?

This section provides a legion of new feats and talents that can be used to customize a character, arming him with unique abilities that differentiate him from the common man and make him memorable. Some of these feats and talents could be class features of an advanced class. For example, the Gang Affiliation, Made Man and Godfather feats could provide the outline for a Career Criminal advanced class. In fact, some of the feats, like Weapon Specialization, are abilities of advanced classes found in the core book, which are translated here into feats. Why is this? And why doesn't CYD20 provide any advanced classes?

Actually, CYD20 doesn't like advanced classes very much. It is suggested that you don't use them in your campaigns. What CYD20 does like is the concept of freeform, almost unlimited character evolution the system of basic classes provides. Instead of putting labels on characters, you can use the basic classes along with the extensive feats and talents found here to create and evolve your character in exactly the way you want.

by 2 points and its Armor Penalty halved.

Prerequisites: Armored Maneuvers.

Advanced Armored Maneuvers: The improvements brought about by Armored Maneuvers and Improved Armored Maneuvers are furthermore increased by 2 additional points of Maximum Dexterity Bonus.

Prerequisites: Armored Maneuvers, Improved Armored Maneuvers.

Tough Hero Talents

BioTek Resistance Talent Tree

The Tough Hero is less vulnerable against the health-degrading effects of bioware and Cyberware.

BioTek Resistance: The total Tolerance of all bioware and Cyberware installed in the Tough Hero's body is reduced by 1 point.

Improved BioTek Resistance: The total Tolerance of all bioware and Cyberware installed in the Tough Hero's body is reduced by 1 point. This stacks with BioTek Resistance, for a total reduction of 2 points.

Prerequisites: BioTek Resistance.

BioTek Resistance: The total Tolerance of all bioware and Cyberware installed in the Tough Hero's body is reduced by 1 point. This stacks with BioTek Resistance and Im-

proved BioTek Resistance, for a total reduction of 7 points.

Prerequisites: BioTek Resistance, Improved BioTek Resistance.

Iron Body Talent Tree

The Tough Hero is capable of overcoming most health threats.

Chem Resistance: You get a +4 bonus on Will saves to avoid or overcome an addiction.

Disease Resistance: You get a +4 bonus on Fortitude saves against diseases.

Toxin Resistance: You get a +4 bonus on Fortitude saves against poisons.

Supra Armor Talent Tree

The Tough Hero knows how to move and position himself when wearing armor to increase its effectiveness.

Supra Armor: The Tough Hero increases by one point all resistance levels of an armor he's wearing.

Improved Supra Armor: The Tough Hero increases by one point all resistance levels of an armor he's wearing. This stacks with Supra Armor, for a total increase of 2 points.

Prerequisites: Supra Armor.

Advanced Supra Armor: The Tough Hero increases by one point all resistance levels of an armor he's wearing. This stacks with Supra Armor and Improved Supra Armor, for a total increase of 3 points.

Prerequisites: Supra Armor, Improved Supra Armor.

Tireless Talent Tree

The Tough Hero overcomes his fatigue very fast.

Fatigue Recovery: The Tough Hero recovers from fatigue after 4 hours of uninterrupted sleep.

Improved Fatigue Recovery: The Tough Hero recovers from fatigue after 2 hours of uninterrupted sleep and becomes fatigued after 30 minutes of being exhausted.

Prerequisites: Fatigue Recovery.

Advanced Fatigue Recovery: The Tough Hero recovers from fatigue after 1 hour of uninterrupted rest and becomes fatigued after 15 minutes of being exhausted.

Prerequisites: Fatigue Recovery, Improved Fatigue Recovery.

Smart Hero Talents

Fast Learning Talent Tree

The Smart Hero learns new things very fast.

Fast Learning: You gain an extra skill point at each new level you attain as a Smart Hero.

Improved Fast Learning: You gain an extra skill point at each new level you attain as a Smart Hero. This stacks with Fast Learning, for a total of two extra skill points.

Prerequisites: Fast Learning.

Advanced Fast Learning: You gain an extra skill point at each new level you attain as a Smart Hero. This stacks with Fast Learning and Improved Fast Learning, for a total of three extra skill points.

Prerequisites: Fast Learning, Improved Fast Learning.

Logistics Talent Tree

The Smart Hero knows how to utilize his available resources in the best possible way, programming his purchases and shifting money around to cover his debts.

Logistics: The Smart Hero is able to expend an action point in order to add the result of the action die plus one-half his Intelligence bonus (if he has a bonus) to a Wealth check.

Improved Logistics: Anytime the Smart Hero successfully makes a purchase that can reduce his Wealth bonus, he is entitled to a Knowledge (business) check (DC equal the Purchase DC) to halve the reduction to his Wealth bonus (rounding up).

Prerequisites: Logistics.

Advanced Logistics: Anytime the Smart Hero successfully uses Improved Logistics to halve the reduction in his

Wealth bonus brought about by a purchase he makes, he can expend an action point in order to cancel the whole reduction altogether.

Prerequisites: Logistics, Improved Logistics.

Skill Mastery Talent Tree

The Smart Hero is quick at learning and perfecting new knowledge.

Jack of All Trades: The Smart Hero gains 2 ranks in every Intelligence-based class skill that currently has a number of ranks less than one-half his class skill max ranks and 1 rank in every Intelligence-based cross-class skill that currently has a number of ranks less than one-half his cross-class skill max ranks. This talent can be taken up to 3 times.

Versatile Knowledge: The Smart Hero selects a number of cross-class skills equal to his Intelligence bonus. These skills become permanent class skills. This talent can be taken up to 3 times.

Dedicated Hero Talents

Perceptive Talent Tree

The Dedicated Hero is very perceptive and receives more and better information through observation.

Quick Scan: The Dedicated Hero knows how to seize up an area and quickly detect and evaluate threats with a single sweep of his eyes. As an attack action, the Dedicated Hero can scan the area that lies in front of him and up to 300 ft away (unless his visibility is restricted or he's using equipment which augments his far vision) with a +4 circumstance bonus on Spot checks. He is able to detect enemies, alarms and surveillance devices, traps, escape routes and other noteworthy features. Anything not concealed can be spotted with a successful DC 10 check. The DC for concealed threats is equal to their Hide check result. If his check result exceeds the DC by 5 or more points, the Dedicated Hero can assess the relative strength of the threat he detects: stronger (higher level or HD), on par (same level or HD) or weaker (lower level or HD).

Size Up: The Dedicated Hero has a quick eye for evaluating people, being able to determine their strengths, talents and inclinations from the way they act, move, speak and generally handle themselves. By observing someone for at least one round, the Dedicated Hero can make a DC 20 Wisdom check to size him up. If the check is successful, he learns the individual's level and the basic class in which he has progressed further. Observing someone for one turn decreases the DC to 15. Each additional turn of observation reduces the DC by 1, to a minimum of 12.

Charismatic Hero Talents

Information Talent Tree

The Charismatic Hero often has extensive information-gathering resources which can provide him with valuable data.

Research Individual: The Charismatic Hero can use his contacts to uncover general but useful information about someone. Pieces of personal information that can be uncovered include name, alias, home address, phone number, vehicle license plate, social security or credit card number, bank account balance etc. To begin with, the Charismatic Hero needs to know at least one piece of information about the individual he wants to research. If he then succeeds in a Gather Information check, he uncovers one other piece of information about the individual (chosen by the hero). For every 5 points the hero's skill check result exceeds the DC by, one additional piece of info is uncovered. The type of information, which determines the skill check DC and the Purchase DC, is considered to be specific in most cases or restricted when the individual actively seeks to conceal his personal information.

Track Individual: The Charismatic Hero's extensive information-gathering resources allow him to locate an individual by combining several bits of info together, like calls placed, purchases made with his credit card, pictures of him on security cameras etc. To begin with, he needs to know at least three separate trustworthy pieces of information about the individual. If the Charismatic Hero succeeds in a Gather Information check, he can place the individual's current location to a city. If his skill check result exceeds the DC by 5 points, he can track the individual to a specific neighborhood. If his skill check result exceeds the DC by 10 or more points, he tracks the individual to a specific city block. The type of information, which determines the skill check DC and the Purchase DC, is usually restricted but can become protected if the individual takes measures to conceal his current whereabouts.

Prerequisites: Research Individual.

Social Invisibility: You can effectively use your knowledge in information-gathering techniques to deter others looking for information about your person. Any Gather Information check made to reveal information about you has its DC increased by 10.

Prerequisites: Research Individual.

Info Web: You have developed a resourceful information network, so that precious information reaches your ears now and then. By expending an action point, you can ask the Gamemaster to provide you with an important clue or piece of info about a situation you're currently facing. The gaining of this knowledge is not instantaneous, but takes the form of a phone call, an e-mail etc, delivered to you within the hour. You cannot use this talent if you're stuck in a place with no means of communication.

Prerequisites: Research Individual, Track Individual.

NEW FEATS

Active Defense

When the bullets fill the air you know how to effectively protect yourself.

Prerequisites: Dexterity 13, Dodge.

Benefit: You can spend an action point to add the result of the action die to your Defense. This increase lasts for a number of rounds equal to one-half your character level (rounded up).

Adrenaline Junkie

You have adapted to the increased adrenaline produced by an adrenal chip and know how to make the best use of its effects.

Prerequisites: Installed adrenal chip implant.

Benefit: When your adrenal chip is active, you can choose to take an extra move or attack action in a round, either before or after your regular actions. However, each time you do so the DC of the Fortitude save that needs to be made after the effects of the adrenaline subside is increased by 1. This increase remains until you have a full 8-hour rest.

Advanced Charge

You know how to use your momentum during a charge to perform powerful attacks.

Prerequisites: Dexterity 13, Improved Charge, Base Attack Bonus +5.

Benefit: If you successfully hit after a charge, you add 1.5 your Strength bonus to damage with a one-handed melee weapon or 2 times your Strength bonus with a two-handed melee weapon.

Advanced Critical

Choose a specific melee or ranged weapon, such as a Steyr TMP. You are devastating when wielding this weapon. You must select a weapon which has a threat range.

Prerequisites: Proficient with weapon, Weapon Focus (with selected weapon), Improved Critical (with selected

weapon), Weapon Specialization (with selected weapon), Base Attack Bonus +10.

Benefit: The critical multiplier for the weapon is increased by one. For example, a revolver does x3 damage on a critical hit instead of x2.

Special: You can gain this feat multiple times. Each time you take the feat you must select a different weapon.

Advanced Power Attack

You can make unbelievably powerful melee attacks.

Prerequisites: Strength 17, Power Attack, Improved Power Attack, Base Attack Bonus +10.

Benefit: When using the Power Attack feat, your damage bonus is multiplied by 2. For example, if you take -4 to attack, you gain +8 to damage.

Advanced Recoil Control

Choose a specific firearm, such as a Steyr TMP. You have almost perfect control over the recoil it produces.

Prerequisites: Proficient with selected weapon, Recoil Control (with selected weapon), Improved Recoil Control (with selected weapon), Base Attack Bonus +10.

Benefit: The recoil penalty for the weapon is reduced by one point. This stacks with the Recoil Control and Improved Recoil Control feats, for a total reduction of 3 points.

Advanced Surprise Strike

You have mastered the art of striking unexpected at vital spots.

Prerequisites: Dexterity 13, Surprise Strike, Improved Surprise Strike, Base Attack Bonus +8.

Benefit: Whenever an opponent is in a situation where he's denied his Dexterity bonus to Defense (whether he actually has a bonus or not), your attack has its threat range increased by one. This stacks with the Surprise Strike and Improved Surprise Strike feats, for a total increase of five. Advanced Surprise Strike may be used along with a ranged attack only if the target lies within

A Few New Kinds of Feats

As you browse through the catalog of new feats, you might notice two new “kinds” of feats: biotek and motivation feats.

Biotek feats have a bioware or Cyberware as a prerequisite. These feats represent abilities provided by the bioware/Cyberware that a character needs to train or ingenious uses a few have found for these devices. In any case, these feats either expand the abilities already provided by the bioware/Cyberware or offer completely new ones.

Motivation feats are based on what motivates a character, what gives him satisfaction. One might say that they represent a character's drive in life. These feats offer substantial rewards in terms of experience when the character manages to fulfill his motivations. However, motivations can also become dangerous things; some of these feats may also apply limitations on the character's actions and way of thinking. Apart from their benefits, motivation feats are likely to provide many opportunities for intense role-playing.

one range increment of the weapon.

Advanced Vehicle Evasion

Your ability to evade threats with your vehicle is astonishing.

Prerequisites: dexterity 13, Drive 12 ranks or Pilot 12 ranks (for airborne vehicles), Vehicle Dodge, Vehicle Evasion, Vehicle Expert.

Benefit: Whenever your vehicle suffers damage by an attack or collision, you can spend an action point to decrease it. The damage suffered is decreased by twice the result of the action die roll (eg if the action die comes up as 4, damage is reduced by 8 points). To use this ability, the vehicle must be moving with at least alley speed.

Advanced Weapon Focus

Choose a specific weapon, like a Steyr TMP. You have mastered the use of this weapon in combat. You can choose unarmed strike or grapple as your weapon for purposes of this feat.

Prerequisites: Proficient with weapon, Weapon Focus (with selected weapon), Improved Weapon Focus (with selected weapon), Base Attack Bonus +8.

Benefit: You add +1 to all attack rolls you make using the selected weapon. This bonus stacks with Weapon Focus and Improved Weapon Focus, for a total of +2 to attack rolls.

Special: You can gain this feat multiple times. Each time you take the feat, you must select a different weapon.

Advanced Weapon Specialization

Choose a specific melee or ranged weapon, such as a

Steyr TMP. You are feared for good reason when wielding this weapon.

Prerequisites: Proficient with weapon, Weapon Focus (with selected weapon), Weapon Specialization (with selected weapon), Improved Weapon Focus (with selected weapon), Base Attack Bonus +15.

Benefit: You get a +2 bonus on damage rolls with the selected weapon. This stacks with the Weapon Specialization and Improved Weapon Specialization feats, for a total of +6 damage.

Special: You can gain this feat multiple times. Each time you take the feat, you must select a different weapon.

Architect

Choose a Craft skill. Your primary purpose in life is to excel in the field of your craft and you gain great satisfaction whenever you manage to build something noteworthy.

Benefit: When you successfully use the selected Craft skill to build an item with DC 20 or greater and your skill check result exceeds the DC by 5 points, you gain 100 times your character level in experience points.

Special: As you always seek to improve your talent, you have to accomplish greater and greater achievements to receive experience. The next time you have to exceed the DC by 10 points, then by 15 points etc. The threshold resets back to 5 when you haven't gained any experience through this feat for 3 months.

Black Market Mogul

You have developed close ties with black marketeers, allowing you to get restricted items and merchandise faster and cheaper.

Prerequisites: Street Status, Knowledge (streetwise) 4 ranks.

Benefit: If you're in a city you have selected for the Street Status feat, the time required to obtain any object with a restriction level (licensed, restricted, military or illegal) is halved (to a minimum of one day) and there is no increase in the Purchase DC (ie you pay the listed commercial price).

Blink-Strike Style

You are able to make extremely fast unarmed strikes at the loss of precision.

Prerequisites: Dexterity 13, Snake-Strike Style, Base Attack Bonus +8.

Benefit: You can use the Snake-Strike Style feat with a

Strong Hero Bonus Feats

The following feats can be acquired by a Strong Hero as bonus feats:

Advanced Charge
Advanced Critical
Cleaving Charge
Improved Charge
Improved Critical
Improved Power Attack
Improved Recoil Control
Improved Weapon Specialization
Improved Weapon Focus
Iron Dragon Style
Iron Fist Style
Iron Grip
Living Weapon Style
Nonlethal Force
Onyx Bear Style
Power Critical
Power Melee
Recoil Control
Swift Strike
Thunderbird Style
Vital Strike
Weapon Specialization
Winged Tiger Style

simple attack action instead of a full attack action.

Born in Anarchy

You grew up with a blatant dislike for any kind of authority and few things satisfy you more than opposing its forces and tearing down its structures.

Benefit: Any encounter with forces of the law that results in you defeating or fooling them is worth double the usual amount of experience points to you.

Special: The drawback of being a devoted anarchist is that you rarely miss a chance to hurt authority in any way you can, often at the expense of more beneficial occupations. Whenever you are presented with a good opportunity to hurt authority in some way (as determined by the Gamemaster), you have to make a DC 15 Will save to resist the temptation to follow it. If you fail this saving throw, you have to pursue the opportunity for at least a day before you receive another saving throw. Of course, being an anarchist doesn't mean that you're a mindless killer or that you have a death wish. While you won't randomly attack the first police officer who crosses your path, you'll find it hard not to intervene when you see one abusing a citizen, even when the smart move would be to walk away. Also, you are assumed to automatically make your

saving throw against opportunities seemingly leading to suicidal confrontations with the law. Cooperating with figures of authority is something you dislike immensely; if need arises, you have to succeed in a DC 20 Will save to force yourself to cooperate.

Bouncy

You are accustomed to working with "bounced" connections.

Prerequisites: Computer Use 8 ranks plus the infiltration specialty.

Benefit: When you bounce your connection to make trace attempts more difficult, you only suffer a -1 penalty to your Computer Use checks per two bounces you make.

Normal: For every bounce you add to your connection, you suffer a -1 penalty to your Computer Use checks.

Cleaving Charge

Your charge attacks are terrifying, cutting down opponents as you run.

Prerequisites: Strength 13, Dexterity 13, Power Attack, Cleave, Great Cleave, Base Attack Bonus +12.

Benefit: When you perform a charge, you are able to make a number of melee attacks equal to your Dexterity bonus against opponents standing within 5 ft of your path in addition to the attack you make on the opponent you charge. These attacks are made at your highest base attack bonus and before the opponents make any attacks of opportunity against you, but they suffer a -2 attack penalty and do not gain any of the charge benefits (or of any feat used to augment a charge attack, such as Endoassault or Advanced Charge). Only one attack may be made against each opponent.

Special: To make a Cleaving Charge, you have to move on a straight line, even if you have the Improved Charge feat. Also, a Cleaving Charge cannot be combined with a Master Charge. Lastly, you cannot make any cleave attacks during a Cleaving Charge.

Code of Honor

Although your actions may be questionable, you have a highly developed code of honor and you consider yourself a man of your word.

Benefit: Whenever you successfully complete your part of a deal that involves danger (at least one high threat encounter), you gain 250 times your character level in experience points.

Fast Hero Bonus Feats

The following feats can be acquired by a Fast Hero as bonus feats:

Active Defense
Combat Pilot
Controlled Autofire
Defensive Position
Evasive Maneuvering
Gun-Fu
Gut Shot
Hail of Fire
Improved Dodge
Improved Evasive Maneuvering
Improved Surprise Strike
Improved Weapon Specialization
Improved Weapon Finesse
Improved Weapon Focus
Infiltration Expert
Quick Jump
Rapid Shot
Speed Demon
Speed Gunnery
Surprise Strike
Speed Trigger
Steady Hands
Vehicle Evasion
Vital Strike
Weapon Specialization

Special: Your code of honor makes breaking a deal or walking away from it very difficult. You have to make a DC 20 Will save to betray someone's trust; if this fails you have to attempt to complete your part of the deal no matter what. You are assumed to automatically make your saving throw if the other side breaks or cancels the deal first.

Combat Cautiousness

In combat, you prefer to land one well-aimed attack instead of several panicked ones.

Prerequisites: Base Attack Bonus +6.

Benefit: When using the full attack action you can forfeit any number of secondary attacks you have because of your high base attack bonus (this doesn't include extra attacks gained through feats, equipment or the use of a second or double weapon). If you do so, add a +2 bonus per attack forfeited to your primary attack (the one at the highest base attack bonus).

Combat Pilot

You are adept in the use of vehicular weapons while driving or piloting.

Prerequisites: Dexterity 13, Drive 8 ranks or Pilot 8 ranks (for airborne vehicles), Vehicle Expert.

Benefit: You may substitute your base attack bonus with your ranks in Pilot (for airborne vehicles) or Drive (for ground vehicles) for one attack per round with a vehicular weapon. If you're able to make multiple attacks per round, only your highest base attack bonus may be substituted with your skill ranks. To use this feat, you must be the one controlling the vehicle and it must be on the move.

Computer Expertise

You are well trained in a certain field of computer science.

Prerequisites: Computer Use 4 ranks.

Benefit: Select one of the specialties of the Computer Use skill you currently don't own. You immediately acquire that specialty. This is in addition to specialties gained normally through acquiring ranks in the Computer Use skill.

Controlled Autofire

You have extreme control over your autofire attacks, restraining from hitting your friends and allies.

Prerequisites: Personal Firearms Proficiency, Advanced Firearms Proficiency, Point Blank Shot, Precise Shot.

Benefit: When making an autofire attack, you can select up to 3 targets in the covered area to automatically make their saving throws and receive no damage.

Defensive Position

You have learnt how to utilize cover to the maximum advantage.

Prerequisites: Dexterity 13.

Benefit: Whenever you have one-quarter, one-half, three-quarters or nine-tenths cover, the cover bonus you get on Defense and Reflex saves is increased by +2.

Destruction Derby Master

You have mastered the fine art of ramming and know how to position your vehicle to inflict more and suffer less damage.

Prerequisites: Drive or Pilot (for airborne vehicles) 8 ranks.

Benefit: On a successful ramming attack or a sideswipe stunt, the damage your vehicle inflicts is multiplied by 1.5, while the damage it suffers is halved.

Tough Hero Bonus Feats

The following feats can be acquired by a Tough Hero as bonus feats:

Advanced Charge
Combat Cautiousness
Destruction Derby Master
Focused Fire
Improved Critical
Improved Charge
Improved Power Attack
Iron Dragon Style
Iron Fist Style
Living Weapon Style
Nonlethal Force
Onyx Bear Style
Power Critical
Power Melee
Thunderbird Style

Digital Havoc

You have learnt to use offensive disruptor programs with frightening efficiency.

Prerequisites: Computer Use 8 ranks plus the network assault specialty.

Benefit: When you score a softwipe or hardwipe damage result with a disruptor program, you get to choose which files are deleted rather than determine them randomly.

Digital Invisibility

You are very hard to find or trace in the hivenet.

Prerequisites: Computer Use 8 ranks plus the network manipulation specialty.

Benefit: You have a +2 competence bonus on any Computer Use check made for the delete log action or to conceal your presence from someone taking a network scan action. Other users have +10 DC to their checks made to detect you through logs (with the analyze logs action), determine your identification key or locate you in the hivenet through it (with the locate user action). Tracers add 2d6 rounds to the time required to locate you.

Emergency Medicine

Using advanced resuscitation methods, it is possible to bring a dead person back to life, if you act quickly and luck is on your side.

Prerequisites: Treat Injury 10 ranks, Surgery.

Benefit: You can save a character reduced to -10 hit points or lower, if you are able to administer aid within 3 minutes of the character's death. Make a Treat Injury check; you can't take 10 or 20. If the check succeeds, the

dead character can make a Fortitude save (DC 15) to stabilize and be restored to 0 hit points. If the skill checks fails or the patient fails the save, the dead character can't be saved.

The DC for the skill check is 30, with the following modifications: +1 for every 2 hit points the character is below -10 and +2 for every minute that has passed since his death (the character is beyond any help after 3 minutes have elapsed). Thus, someone who has been reduced to -15 hit points and has remained in this state for two minutes needs a skill check made against DC 36 to be resuscitated.

Endoassault

You know how to effectively use the extra mass of an endoskeleton in a charge or bull rush.

Prerequisites: Installed endoskeleton of any grade.

Benefit: The added momentum due to an endoskeleton's mass enables you to add its grade to the damage roll after a successful charge or the opposed Strength check of a bull rush.

Evasive Maneuvering

You can perform intricate defensive maneuvers with a vehicle.

Prerequisites: Dexterity 13, Drive 10 ranks or Pilot 10 ranks (for airborne vehicles), Vehicle Dodge, Vehicle Expert

Benefit: By making a DC 20 stunt, you can add one-half your class Defense bonus to the vehicle's Defense for one round. If the check fails, the vehicle's Defense isn't increased and you have to make a DC 15 Drive check to retain control. To use this ability, the vehicle must be moving with at least alley speed.

Evasive Surfing

You are adept at protecting yourself in the hivenet.

Prerequisites: Computer Use 4 ranks plus the network defense specialty.

Benefit: During your action in the hivenet, you designate an opponent and receive a +2 bonus to hivenet Defense against any subsequent attacks from that opponent. You can select a new opponent on any action.

Fastjack

You have learnt how to use synaptic boost implants to augment your reflexive responses as well as your quick-

Smart Hero Bonus Feats

The following feats can be acquired by a Smart Hero as bonus feats:

Bouncy
Computer Expertise
Digital Havoc
Digital Invisibility
Evasive Surfing
Ghost in the Machine
Hardware Wiz
Improved Evasive Surfing
Improvisation Expert
Improvisation Weaponsmaster
Mastercrafter
Pattern Reading

ness.

Prerequisites: Installed synaptic boost implant of any grade.

Benefit: At the beginning of a combat, when you make the initiative check, you can choose to forfeit some or all of the biotech bonus provided by your synaptic boost. If you do so, you gain a +1 biotech bonus to Reflex saves for the duration of the combat for every +2 initiative bonus you forfeit. For example, if you have a grade 3 synaptic boost (+6 initiative bonus), you can only use a +2 bonus for the initiative check in order to receive a +2 bonus (4:2=2) to Reflex saves.

Fearless

Fear is a word not in your dictionary and you never back down from any challenge unless out of a conscious choice.

Benefit: You gain a +4 morale bonus on Will saves to resist fear effects and on level checks to oppose Intimidate checks.

Field Medicine

You are adept at taking care of injuries.

Prerequisites: Treat Injury 4 ranks.

Benefit: Your ability to restore hit points with a medical or surgery kit and the Treat Injury skill improves. In addition to the normal hit point recovery rate (1d4 for a medical kit, 1d6 per patient's character level for surgery), you restore 1 hit point for every 3 ranks you have in the Treat Injury skill.

Focused Fire

You are most effective when focusing your fire on a single target.

Prerequisites: Base Attack Bonus +6.

Benefit: When using a firearm with the full attack action, you gain a +1 attack bonus for each previous attack you've made (whether successful or not) with the same firearm against the same target in the span of the same round. For example, if you have a +15/+10/+5 attack bonus and you make all three attacks on a single target, you will have +15 for the first attack, +11 for the second attack and +7 for the third attack.

Gang Affiliation

You are affiliated with a criminal organization, such as the Mafia, Yakuza, Triads or Tongs.

Prerequisites: Membership in a criminal organization. This requires that you're on good terms with the organization and complete a task for it. The Gamemaster decides on the details, but it shouldn't be something beyond your capabilities.

Benefit: You have +2 Reputation when dealing with criminal elements or law officials (in most cases, law officials will consider you infamous). You can also request small favors from your parent organization, like simple information or limited protection. From time to time, the organization will call on you to perform some job. The details are up to the Gamemaster, but such jobs should be relatively easy (the organization wouldn't trust a rookie with anything serious) and can provide the setting for a mini-adventure.

Special: If you are expelled from the organization for any reason, you lose benefits of this feat, although you can later take a new feat with another organization that accepts you as a member. You cannot have two affiliations with different organizations at the same time.

Ghost

You have created an alternate identity as a precaution in case your current identity is compromised or becomes unsafe.

Benefit: Your alternate identity comes complete with bank accounts, credit cards, driver's license and a carefully constructed record. It remains inactive until you decide to switch to it, perhaps after becoming wanted by the police or your enemies. Thereafter, any search based on your old identity will come up with nothing, as if you've vanished from sight.

Special: You can gain this feat multiple times. Each time you take the feat, you gain a new alternate identity you

Dedicated Hero Bonus Feats

The following feats can be acquired by a Dedicated Hero as bonus feats:

Emergency Medicine
Fearless
Field Medicine
Inner Focus

can use in the future.

Ghost in the Machine

You are accustomed in evading computer security measures, but when you fail you fail big time.

Prerequisites: Computer Use 8 ranks plus the infiltration specialty.

Benefit: When you fail a Computer Use check by more than 5 points in a secure computer system you are attempting to infiltrate, you have the option to re-roll the check. If you choose to do so and succeed in the new check, the action is still a failure but the security measures of the system are not activated against you. However, if the new check also fails (even marginally), the system responds with a +2 bonus to the roll on the security table.

Gifted

Choose an ability, such as Strength or Dexterity. You have inner reserves you can call upon from time to time to improve this ability.

Prerequisites: A score of 13 or higher in the selected ability, Talented (with the selected ability).

Benefit: You can expend an action point to temporarily increase the score of the selected ability by the result of the action die roll. This increase lasts for a number of turns equal to one-half your character level. No more than one action point may be spent to increase an ability at any given time.

Godfather

You are widely recognized as one of the columns of a criminal organization.

Prerequisites: Gang Affiliation, Made Man, character level 8.

Benefit: You gain +2 Reputation, usable against anyone. This stacks with the Gang Affiliation and Made Man feats, for a total of +6 when dealing with criminal elements or law officials. Your income increases dramatically; the +4 bonus on Profession checks provided by the Made Man feat becomes +10. Most of the organization's resources

are available to you; you can use its information network, political and other contacts and manpower.

The authority of a godfather is such that when recognized by someone as either famous or infamous, you get an additional +2 bonus to Intimidate checks. This stacks with the Made Man feat, for a total bonus of +4. The organization no longer assigns tasks to you. Instead, it's your responsibility to assign tasks to lesser members, plan the organization's movements and make important decisions about its future. This could be used by the Gamemaster to stage an entire campaign.

Special: As with the Gang Affiliation and Made Man feats, you lose the Godfather benefits if you're no longer a member of the organization. The Gamemaster should remember however, that a man of such status and knowledge of sensitive information doesn't simply walk away from an organization. If he messes things up or decides to retire, his comrades are most likely to have him killed and even if he survives and escapes they will hunt him down relentlessly.

This feat requires constant monitoring and moderation by the Gamemaster. It is hard to describe its benefits in game terms and at times it may seem too powerful; it is certainly easy for a player to abuse it. However, both the Gamemaster and the player should not forget that a godfather is supposed to use the resources and power available to him for the good of his organization and not solely for his own, and that such a powerful man also has very powerful enemies (some of which may belong to the same organization).

Grim Reaper

You are such a master of melee combat that you can walk through the battlefield cutting down anyone who dares stand against you.

Prerequisites: Strength 13, Dexterity 13, Power Attack, Cleave, Great Cleave, Cleaving Charge, Base Attack Bonus +15.

Benefit: You are able to take a 5-ft step between your cleave attacks, as long as you don't exceed your normal movement allowance for the round (5 ft if you've taken a full-round action or equal to your Speed is you've taken an attack action and have a move action left).

Gun-Fu

You are an expert in using small firearms in close combat or confined spaces.

Charismatic Hero Bonus Feats

The following feats can be acquired by a Charismatic Hero as bonus feats:

Black Market Mogul
Info Haven
Street Status

Prerequisites: Dexterity 13, Base Attack Bonus +1.

Benefit: You can make ranged attacks with a Medium-sized or smaller firearm while in a threatened area without provoking an attack of opportunity.

Normal: Ranged attacks made in a threatened area provoke an attack of opportunity.

Gut Shot

You can focus your skill with a ranged weapon in a devastating shot.

Prerequisites: Dexterity 13, Point Blank Shot, Base Attack Bonus +1.

Benefit: If you successfully hit with a ranged weapon, you can expend an action point to increase the damage inflicted. You can spend the action point after the damage roll is made, but before the Gamemaster describes the effects of damage. Spending an action point increases the damage by twice the result of the action die. You cannot attempt a gut shot with an autofire attack, but you can attempt it with a burst fire attack.

Hail of Fire

You can lay down extremely effective autofire attacks.

Prerequisites: Personal Firearms Proficiency, Advanced Firearms Proficiency, Strafe, Base Attack Bonus +4.

Benefit: When you make an autofire attack, the DC for the Reflex save everyone in the covered area makes is 20 instead of 15.

Hardware Wiz

You know how to set up and tweak a computer you get your hands on so that it functions at peak performance.

Prerequisites: Computer Use 4 ranks.

Benefit: If you spend a minute tweaking a computer, you can make a DC 20 Computer Use check to increase its active memory, storage memory and speed slots by one. This increase is not permanent; after one day you have to perform new tweaks to retain the benefits. The tweaks and tricks you use to increase performance always enclose some danger to the machine; if the skill check fails by more than 5 points, the computer suffers permanent

damage, losing one slot of active memory, storage memory and speed.

Headshot

Rivalling the best professional snipers, you consider yourself a failure if you hit a body part other than the head.

Prerequisites: Far Shot, Sniper, Improved Sniper, One Shot One Kill, Base Attack Bonus +10.

Benefit: You can expend an action point in order to turn a successful single-shot attack (not burst fire or autofire) with a longarm into a headshot. The action point can be expended after an attack roll, but before the damage roll is made. A headshot is automatically a critical hit and the target doesn't receive any protection from his armor unless he's wearing a helmet. You are unable to use this ability in cases where it would be impossible to hit the target's head and the feat is useless against anything other than living creatures.

Improved Charge

You don't have to move in a straight line during a charge attack.

Prerequisites: Dexterity 13, Base Attack Bonus +3.

Benefit: You can alter your direction when making a charge to avoid obstacles.

Normal: You can only move in a straight line when making a charge.

Improved Critical

Choose a specific melee or ranged weapon, such as a Steyr TMP. You are frighteningly effective when wielding this weapon. You must select a weapon which has a threat range.

Prerequisites: Proficient with selected weapon, Weapon Focus (with selected weapon), Weapon Specialization (with selected weapon), Base Attack Bonus +8.

Benefit: Your threat range with the weapon increases by one. For example, a revolver threatening a critical hit on a 20 now threatens it on 19-20.

Special: You can gain this feat multiple times. Each time you take the feat, you must select a different weapon.

Improved Dodge

You are extremely adept at dodging attacks.

Prerequisites: Dexterity 13, Dodge.

Benefit: During your action, you designate an opponent and receive a +1 dodge bonus to Defense against any sub-

sequent attacks from that opponent. You can select a new opponent on any action. This bonus stacks with the Dodge feat if used against the same opponent (for a total of +2 Defense against that opponent) or it can be used against a different opponent (thus, having +1 Defense against two different opponents).

Improved Evasive Maneuvering

You can perform extremely complex defensive maneuvers with a vehicle.

Prerequisites: Dexterity 13, Drive 12 ranks or Pilot 12 ranks (for airborne vehicles), Evasive Maneuvering, Vehicle Dodge, Vehicle Expert.

Benefit: As Evasive Maneuvering, except that you add your full class Defense bonus to the vehicle's Defense.

Improved Evasive Surfing

You are extremely adept at protecting yourself in the hivenet.

Prerequisites: Computer Use 8 ranks plus the network defense specialty.

Benefit: During your action in the hivenet, you designate an opponent and receive a +2 bonus to hivenet Defense against any subsequent attacks from that opponent. You can select a new opponent on any action. This bonus stacks with the Evasive Surfing feat if used against the same opponent (for a total of +4 Defense against that opponent) or it can be used against a different opponent (thus, having +2 Defense against two different opponents).

Improved Power Attack

You can make extremely powerful melee attacks.

Prerequisites: Strength 15, Power Attack, Base Attack Bonus +5.

Benefit: When using the Power Attack feat, your damage bonus is multiplied by 1.5. For example, if you take -4 to attack, you gain +6 to damage.

Improved Rapid Shot

You are able to use a ranged weapon amazingly fast at the loss of accuracy.

Prerequisites: Dexterity 13, Rapid Shot, Base Attack Bonus +8.

Benefit: You can use the Rapid Shot feat with a simple attack action instead of a full attack action.

Improved Recoil Control

Choose a specific firearm, such as a Steyr TMP. You have

excellent control over the recoil it produces.

Prerequisites: Proficient with selected weapon, Recoil Control (with selected weapon), Base Attack Bonus +6.

Benefit: The recoil penalty for the selected weapon is reduced by one point. This stacks with Recoil Control, for a total reduction of 2 points.

Improved Sniper

You are extremely accurate when firing single shots from longarms.

Prerequisites: Far Shot, Sniper, Base Attack Bonus +6.

Benefit: The reduction in range penalties provided by the Sniper Feat increases to 4 points.

Improved Swift Strike

You are able to use a melee weapon amazingly fast at the loss of precision.

Prerequisites: Dexterity 13, Swift Strike, Base Attack Bonus +8.

Benefit: You can use the Swift Strike feat with a simple attack action instead of with a full attack action.

Improved Surprise Strike

You have nearly perfected the art of striking unexpected at vital spots.

Prerequisites: Dexterity 13, Surprise Strike, Base Attack Bonus +4.

Benefit: Whenever an opponent is in a situation where he's denied his Dexterity bonus to Defense (whether he actually has a bonus or not), your attack has its threat range increased by two (eg 19-20 becomes 17-20). This stacks with the Surprise Strike feat, for a total increase of four. Improved Surprise Strike may be used along with a ranged attack only if the target lies within one range increment of the weapon.

Improved Weapon Finesse

Choose a melee weapon to which you have applied the Weapon Finesse feat. You can rely on quick, precise strikes rather than powerful blows to hurt your opponent.

Prerequisites: Proficient with weapon, Weapon Finesse (with selected weapon), Base Attack Bonus +2.

Benefit: With the selected melee weapon, you can use your Dexterity modifier instead of your Strength modifier on damage rolls.

Improved Weapon Focus

Choose a specific weapon focus, such as a Steyr TMP. You

have perfected the use of this weapon in combat. You can choose unarmed strike or grapple for your weapon for purposes of this feat.

Prerequisites: Proficient with selected weapon, Weapon Focus with selected weapon, Base Attack Bonus +5.

Benefit: You add +1 to all attack rolls you make using the selected weapon. This bonus stacks with Weapon Focus, for a total of +2 to attack rolls.

Special: You can gain this feat multiple times. Each time you take the feat, you must select a different weapon.

Improved Weapon Specialization

Choose a specific melee or ranged weapon, such as a Steyr TMP. You are lethal when wielding this weapon.

Prerequisites: Proficient with selected weapon, Weapon Focus (with selected weapon), Weapon Specialization (with selected weapon), Base Attack Bonus +10.

Benefit: You get a +2 bonus on damage rolls with the selected weapon. This stacks with the Weapon Specialization bonus, for a total of +4 damage.

Improvisation Expert

You are an expert at using improvised weapons and tools.

Prerequisites: Dexterity 13.

Benefit: You don't take any penalty when wielding an improvised weapon or when using the Climb and Disable Device skills without the proper tools.

Normal: You take a -4 penalty when wielding an improvised weapon or when using the Climb and Disable Device skills without the proper tools.

Improvised Weaponsmaster

You are a master at using improvised weapons with great effect.

Prerequisites: Dexterity 13, Improvisation Expert, Base Attack Bonus +4.

Benefit: You treat an improvised weapon as one size category larger than it is for the purpose of determining the damage it deals.

Infiltration Expert

You are adept at concealing your activities.

Prerequisites: Dexterity 13, Hide 10 ranks, Move Silently 10 ranks.

Benefit: You almost leave no trace at all when using any of the following skills: Balance, Climb, Disable Device, Escape Artist, Hide, Move Silently and Sleight of Hand. Those

using Investigate, Listen, Search or Spot to detect your activity take a -4 penalty.

Info Haven

Choose a city, like New York or London. You have developed a network of contacts and other information-gathering resource in this city that can provide you with important data.

Prerequisites: Gather information 4 ranks.

Benefit: Any Gather Information check made in the selected city gains a +4 circumstance bonus and the Purchase DC for information is reduced by 5 (to a minimum of 0).

Special: You can gain this feat multiple times. Each time you take the feat you must select a different city, but additionally the skill bonus associated with previous cities selected goes up by +2 (the Purchase DC reduction remains the same). For example, if you have taken Info Haven (New York) and then take Info Haven (London), you'll have a +6 bonus in New York and a +4 bonus in London.

Inner Focus

You can be extremely effective when you put your mind to a task.

Prerequisites: Character level 8.

Benefit: You can spend 2 action points in a round. You can spend an action point, see the result of the roll, and then decide to spend a second point, as long as you do so before the Gamemaster reveals the result of your action.

Iron Dragon Style

You are able to make blows at vital points that cripple the opponent.

Prerequisites: Combat Martial Arts, Improved Combat Martial Arts, Base Attack Bonus +8.

Benefit: You can make a crippling strike by taking a -4 penalty to your unarmed strike attack. If you successfully deal damage, the opponent also suffers d4 points of temporary Strength damage. Only one crippling strike (either with Iron Dragon Style or Steel Dragon style) may be made each round.

Special: The Iron Dragon Style may be combined with the Thunderbird Style or the Thunderhawk Style in the same attack, but the attack penalty is cumulative (-6).

Iron Fist Style

You can focus your strength in devastating punches.

Prerequisites: Strength 13, Combat Martial Arts, Base Attack Bonus +1.

Benefit: If you successfully hit with an unarmed strike, you can expend an action point to increase the damage inflicted. You can spend the action point after the damage roll is made, but before the Gamemaster describes the effects of damage. Spending an action point increases the damage by twice the result of the action die.

Iron Grip

You can wield extremely large weapons.

Prerequisites: Strength 15.

Benefit: You are able to use a weapon two size categories larger than you with two hands. However, you suffer a -4 penalty to attack rolls with such a weapon.

Normal: You can't use a weapon more than one size category larger than you unless it's placed on a tripod or similar large weapon mount.

Ivory Spear Style

Possessing extensive knowledge in human anatomy, you are able to use an opponent's skeleton as a weapon against him. With carefully planned strikes, you can drive a rib into his heart, the nose bone into his brain, and perform similar deadly attacks.

Prerequisites: Combat Martial Arts, Improved Combat Martial Arts, Advanced Combat Martial Arts, Iron Dragon Style, Steel Dragon Style, Base Attack Bonus +12.

Benefit: You can make a deadly strike by taking a -6 penalty to your unarmed strike attack. If you successfully deal damage, the Massive Damage Threshold of the opponent is halved. Your unarmed strike must be able to deal lethal damage for this ability to function and you can only make one deadly strike per round.

Leaping Strike

Using spring motion bioware you can greatly add to the momentum of your melee attacks.

Prerequisites: Installed spring motion bioware.

Benefit: If you're standing at least 10 ft away from an opponent and succeed in a Jump check to reach him with a leap, your attack is treated as a charge (but still remains a simple attack action, not a full-round one). You are free to use any feat augmenting a charge attack (like advanced charge).

Living Weapon Style

You are able to attack with either fist interchangeably, or

even with elbows, knees and feet, even when holding other weapons.

Prerequisites: Combat Martial Arts, Improved Combat Martial Arts, Base Attack Bonus +4.

Benefit: You can make unarmed strikes when your hands are full, and you don't suffer any off-hand penalty for unarmed strikes.

Long Burst

You can fire bursts of longer duration that do more damage.

Prerequisites: Wisdom 13, Personal Firearms Proficiency, Advanced Firearms Proficiency, Burst Fire, Base Attack Bonus +4.

Benefit: When using an automatic firearm, you may fire a long burst as a single attack against a single target. Your attack deals +3 dice of damage, but the recoil pool of the weapon is immediately increased by twice the weapon's Recoil level (as for autofire). There is also an additional -2 attack penalty. For example, a firearm that deals 2d6 points of damage deals 5d6 instead.

Firing a long burst expends ten bullets and can only be done if the weapon has ten bullets in it.

Special: If the firearm has a 3-round burst setting, firing a long burst expends six bullets instead of ten and can be used if the weapon has only six bullets in it.

Made Man

You are a fully recognized and respected member of a criminal organization.

Prerequisites: Gang Affiliation, character level 4.

Benefit: You have +2 Reputation when dealing with criminal elements or law officials (in most cases, law officials will consider you infamous). This stacks with the Gang Affiliation feat, for a total of +4 Reputation. You are able to request greater favors from your parent organization and the money coming with your position grant you a +4 bonus on Profession checks made to increase your Wealth bonus when advancing in level.

By using the reputation and power of your organization, you can increase the weight of your threats, provided of course that those you threaten recognize you as a member. When recognized by someone as either famous or infamous, you get an additional +2 bonus to Intimidate checks, although this is useless against higher-ranking members of the organization.

The downside is that your responsibilities are also

increased and the organization will call on you more frequently and for harder tasks (which may evolve into full stories).

Special: If you are expelled from the organization from any reason, you lose benefits of this feat, although you can later take a new feat with another organization that accepts you. You cannot be a made man in more than one organization at the same time.

Master Charge

You can follow a charge with a flurry of attacks.

Prerequisites: Dexterity 13, Improved Charge, Advanced Charge, Base Attack Bonus +10.

Benefit: When you perform a charge, you may take all of your attacks (just like the full attack action) instead of only a single attack. However, only your first attack gains the benefits of the charge (and of any feats used to augment it, such as Endoassault or Advanced Charge); these benefits are lost if the first attack fails.

Special: A Master Charge cannot be combined with a Cleaving Charge.

Master Critical

Choose a specific melee or ranged weapon, such as a Steyr TMP. Few are the targets you cannot bring down with a good hit.

Prerequisites: Proficient with weapon, Weapon Focus (with selected weapon), Improved Weapon Focus (with selected weapon), Weapon Specialization (with selected weapon), Improved Critical, Advanced Critical, Base Attack Bonus +14.

Benefit: When you score a critical hit with the weapon, any bonus damage expressed as damage dice (eg from a double tap) is also multiplied.

Normal: Bonus damage expressed as damage dice isn't multiplied on a critical hit.

Special: You can gain this feat multiple times. Each time you take the feat you must select a different weapon.

Mastercrafter

Choose electronics or mechanics. You are adept at creating mastercraft objects in that field.

Prerequisites: Craft (electronic) 10 ranks for electronic items or Craft (mechanical) 10 ranks for mechanical items.

Benefit: You can build mastercraft objects using the Craft (electronic) or Craft (mechanical) skill. On average, it

takes twice as long to build a mastercraft object as it does to build an ordinary object of the same type. The cost to build a mastercraft object is equal to the Purchase DC for the components + the bonus provided by the mastercraft feature. You can add the mastercraft feature to an existing ordinary object by making the Wealth check and then the Craft check as though you were constructing the object from scratch.

In addition to the Wealth check, you must also pay a cost in experience points equal to 25 x one-third your character level x the bonus provided by the mastercraft feature. The XP must be paid before making the Craft check. If the expenditure of these XP would drop you below the minimum needed for your current level, then the XP can't be paid and you can't use this feat until you gain enough additional XP to remain at your current level after the expenditure is made.

When successfully completed, a mastercraft object provides a +1 bonus to its quality compared to an ordinary object of the same type. If you have 14 ranks in the related Craft skill, your mastercraft objects provide a +2 bonus. If you have 18 ranks, they provide a +3 bonus.

The Craft DC for a mastercraft object is the same as for a normal object of the same type, with the following modifications: For a +1 object add +3 to the Craft DC; for a +2 object add +5 to the Craft DC; and for a +3 object add +10 to the Craft DC.

Special: You may gain this feat twice, once for electronic and once for mechanical objects.

Money Shark

Money governs your life and your primary purpose in life is to earn as much as possible.

Benefit: Every time your Wealth bonus increases you gain an amount of experience points equal to 250 times your character level (regardless of how large the increase is).

Special: Your quest for material wealth often overshadows your morality and sometimes even your good sense. Whenever you are presented with a good opportunity (as determined by the Gamemaster) to make money, you have to make a DC 15 Will save to resist the temptation to grasp it. If you fail this saving throw, you have to pursue the opportunity for at least a day before you receive another saving throw, regardless of the repercussions your actions may have on other people. You can always refuse to undertake opportunities based on illegal activities (you are assumed to automatically make your saving throw).

Murphy's Bane

You seem to be incredibly lucky, living a charmed life.

Benefit: You can spend an action point to re-roll a failed ability check, attack roll, saving throw or skill check. You must abide by the new result.

Nonlethal Force

You are adept at using non-lethal force to subdue an opponent.

Prerequisites: Base Attack Bonus +2.

Benefit: You can deal nonlethal damage with a weapon that normally deals lethal damage if you so choose, without taking the normal -4 penalty on the attack roll.

Normal: You take a -4 penalty to the attack roll when attempting to deal nonlethal damage with a weapon that normally deals lethal damage.

One Shot, One Kill

When using a high-powered, accurate longarm, you usually don't need more than one shot to bring your target down.

Prerequisites: Far Shot, Sniper, Improved Sniper, Base Attack Bonus +8.

Benefit: Once per round, you can improve the threat range of an attack you make with a longarm by one (eg 19-20 becomes 18-20). The use of this ability must be declared before the attack roll is made and cannot augment a burst fire or an autofire attack.

Onyx Bear Style

You are able to make expert grapples your opponents find very hard to break. Your knowledge also makes you very adept at escaping a grapple.

Prerequisites: Defensive Martial Arts, Combat Throw.

Benefit: When making a grapple check, you add a +4 bonus to your grapple modifier.

Overconfident

You have great faith on your abilities, often greater than what common sense would dictate. You are satisfied when your confidence is proved right, but in many cases it puts you in extremely hazardous positions.

Benefit: If you successfully pull through a tough encounter (one with an EL 4 or more points higher than your character level), you receive twice the usual amount of experience points.

Special: Your overconfidence makes you believe you can survive nearly everything. Whenever faced with an overwhelming encounter that leaves even a marginal chance for success (as determined by the Gamemaster) you have to make a DC 10 Will save to flee. If you fail this saving throw you have to remain and brave it for at least one turn before you receive another saving throw. You are assumed to automatically make your saving throw when faced with an impossible encounter.

Quick Jump

You can bring yourself to your feet from any position in no time.

Prerequisites: Dexterity 13, Jump 4 ranks.

Benefit: You can stand up from a prone position as a free action.

Rapid Two-Weapon Fighting

You are extremely fast with two weapons or a double weapon.

Prerequisites: Dexterity 13, Two-Weapon Fighting, Base Attack Bonus +4.

Benefit: You are able to use an off-hand weapon or a double weapon to make an extra attack as a simple attack action instead of a full-attack action. However, the extra attack suffers a -2 penalty (in addition to the normal penalties for using a second weapon). Even if you have the Improved Two-Weapon fighting or Advanced Two-Weapon Fighting feats, you can only make one extra attack as a simple attack action.

Rapid Shot

You are able to use a firearm extremely fast at the loss of accuracy.

Prerequisites: Dexterity 13, Base Attack Bonus +5.

Benefit: When using a firearm you're able to make an extra attack each round at your highest attack bonus. However, all of your attacks must be made with a firearm and they all suffer a -2 penalty. Rapid Shot must be used with the full attack action.

Pattern Reading

You have figured out most of the patterns used by computer security drones to attack and defend and this knowledge allows you to fool them most of the time. It's too bad that human opponents don't follow any known patterns.

Prerequisites: Intelligence 13, Computer Use 8 ranks plus the network assault and network defense specialties.
Benefit: You gain a +2 competence bonus to your hivenet Defense and damage rolls, but only against drones.

Power Critical

You can focus your combat skill in lethal strikes.

Prerequisites: Base Attack Bonus +4.

Benefit: If you successfully hit with one of your attacks, you can expend an action point to increase its threat range by two. The action point can be expended after the attack roll to hit is made, but before the Gamemaster announces its result.

Power Melee

You can focus your strength in devastating attacks with a melee weapon.

Prerequisites: Strength 13, Power Attack, Base Attack Bonus +1.

Benefit: If you successfully hit with a melee weapon, you can expend an action point to increase the damage inflicted. You can spend the action point after the damage roll is made, but before the Gamemaster describes the effects of damage. Spending an action point increases the damage by twice the result of the action die.

Recoil Control

Choose a specific firearm, such as a Steyr TMP. You have good control over the recoil it produces.

Prerequisites: Proficient with selected weapon, Base Attack Bonus +1.

Benefit: The recoil penalty for the selected weapon is reduced by one point.

Sharpshooting

You're able to pull off shots others would miss due to cover.

Prerequisites: Wisdom 13, Far Shot, Sniper.

Benefit: When you use a personal firearm to attack a target that has one-quarter, one-half, three-quarters or nine-tenths cover, his cover bonus to Defense is reduced by 2.

Snake-Strike Style

You are able to make extremely fast unarmed strikes at the loss of precision.

Prerequisites: Dexterity 13, Base Attack Bonus +5.

Benefit: You are able to make an extra unarmed strike attack each round at your highest base attack bonus. However, all of your attacks must be unarmed strikes and they all suffer a -2 penalty. Snake-Strike Style must be used with the full attack action.

Sniper

You are very accurate when firing single shots from longarms.

Prerequisites: Far Shot.

Benefit: When using a longarm, you can reduce range penalties by 2 points. This ability may be used once per round and its use must be declared before the attack roll is made. It cannot be used along with a burst fire or an autofire attack.

Speed Demon

You retain smooth control over your vehicle even at high speeds.

Prerequisites: Drive or Pilot (for airborne vehicles) 6 ranks.

Benefit: All check/roll modifiers due to speed are halved, rounding down.

Speed Gunnery

You are able to control your vehicle's weapons both quickly and effectively.

Prerequisites: Dexterity 13, Drive 10 ranks or Pilot 10 ranks (for airborne vehicles).

Benefit: You may make one free attack per round with a vehicle weapon you're able to control. This attack is made at your highest attack bonus but suffers a -2 penalty. To use this feat, you must be the controlling the vehicle.

Speed Trigger

You can mimic an autofire attack with a semi-automatic weapon, albeit with poor accuracy, by emptying its clip as fast as you can.

Prerequisites: Dexterity 13, Point Blank Shot, Double Tap, Base Attack Bonus +3.

Benefit: As a full-round action, you can make an autofire attack with a ranged weapon that has Rate of Fire "S". This attack expends 10 bullets and can only be done if the weapon has ten bullets in it. It follows all rules for autofire, but has an additional -4 penalty (in addition to the usual -4 penalty if you lack the Advanced Firearms Proficiency feat).

If you have the Burst Fire feat, Speed Trigger can also be used to make burst fire attacks with a semi-auto weapon. This is also a full-round action, expends five bullets and requires that the weapon has five bullets in it. It follows all the usual rules for burst fire, but has an additional -2 penalty.

Steady Hands

You rarely lose control of a vehicle.

Prerequisites: Vehicle Expert, Drive 4 ranks.

Benefit: You get a +2 bonus on checks made to avoid losing control or to regain control of a vehicle. Moreover, you can simply expend an action point in order to automatically avoid losing or to regain control.

Steel Dragon Style

You are able to make blows at vital points that cripple the opponent.

Prerequisites: Combat Martial Arts, Improved Combat Martial Arts, Advanced Combat Martial Arts, Iron Dragon Style, Base Attack Bonus +10.

Benefit: You can make a crippling strike by taking a -4 penalty to your unarmed strike attack. If you successfully deal damage, the opponent also suffers d6 points of temporary Strength damage. Only one crippling strike (with Iron Dragon Style or Steel Dragon Style) may be made each round.

Special: The Steel Dragon Style may be combined with the Thunderbird Style or the Thunderhawk Style in the same attack, but the attack penalty is cumulative (-6).

Street Status

Choose a city, such as New York or London. It is a place you know well, in which you've made a name for yourself.

Prerequisites: Knowledge (streetwise) 4 ranks.

Benefit: You gain a +4 circumstance bonus on any Knowledge (streetwise) check made in the selected city and you have +2 Reputation when dealing with elements of the city's underworld or law officials.

Special: You can gain this feat multiple times. Each time you take the feat you must select a different city, but additionally the skill bonus associated with cities you've previously selected goes up by +2 (the Reputation bonus remains the same). For example, if you've taken Street Status (New York) and then take Street Status (London), you'll have a +6 bonus in New York and a +4 bonus in London.

Surprise Strike

You are adept at striking unexpected at vital spots.

Prerequisites: Dexterity 13, base attack bonus +2.

Benefit: Whenever an opponent is in a situation where he's denied his Dexterity bonus to Defense (whether he actually has a bonus or not), your attack has its threat range increased by two (eg 19-20 becomes 17-20). Surprise Strike may be used along with a ranged attack only if the target lies within one range increment of the weapon.

Swift Strike

You are able to use a melee weapon extremely fast at the loss of precision.

Prerequisites: Dexterity 13, Base Attack Bonus +5.

Benefit: When using a melee weapon you're able to make an extra attack each round at your highest base attack bonus. However, all of your attacks must be made with a melee weapon and they all suffer a -2 penalty. Swift Strike must be used with the full attack action.

Talented

Choose an ability, such as Strength or Dexterity. You are very talented in tasks where this ability applies.

Prerequisites: A score of 13 or higher in the selected ability.

Benefit: Whenever you spend an action point to improve an ability check, attack roll or saving throw where the modifier of the selected ability applies, you roll an additional die. For example, an 8th-level character would roll 3d6 instead of 2d6.

Special: You can gain this feat multiple times. Each time you take the feat you must select a different ability.

Thunderbird Style

You are able to make blows at sensitive points that can stun the opponent from pain.

Prerequisites: Combat Martial Arts, Improved Combat Martial Arts, Base Attack Bonus +5.

Benefit: You can make a stunning attack by taking a -2 penalty to your unarmed strike attack. If you successfully deal damage, the opponent must make a DC 15 Fortitude save to avoid being stunned for d2 rounds. Only one stunning strike (with Thunderbird Style or Thunderhawk Style) may be made each round.

Special: The Thunderbird Style may be combined with the

Iron Dragon Style or Steel Dragon Style in the same attack, but the attack penalty is cumulative (-6).

Thunderhawk Style

You are able to make blows at sensitive points that can stun the opponent from pain.

Prerequisites: Combat Martial Arts, Improved Combat Martial Arts, Thunderbird Style, Base Attack Bonus +6.

Benefit: You can make a stunning strike by taking a -2 penalty to your unarmed strike attack. If you successfully deal damage, the opponent must make a DC 15 Fortitude save to avoid being stunned for d4 rounds. Only one stunning strike (with Thunderbird Style or Thunderhawk Style) may be made each round.

Special: The Thunderhawk Style may be combined with the Iron Dragon Style or the Steel Dragon Style in the same attack, but the attack penalty is cumulative (-6).

Vehicle Evasion

With quick, reflexive maneuvers you are able to steer your vehicle away from trouble.

Prerequisites: Dexterity 13, Drive 10 ranks or Pilot 10 ranks (for airborne vehicles), Vehicle Dodge, Vehicle Expert.

Benefit: Every time your vehicle is threatened by an attack that normally allows a character to make a Reflex save to take half damage, you are able to make a Reflex save for the vehicle to suffer half damage. This saving throw is penalized by twice the vehicle's Size modifier (eg a Huge vehicle has a -4 penalty to save). To use this ability, the vehicle must be moving with at least alley speed.

Vigilante

Choose a criminal organization, such as the Mafia, Tongs, Triads or Yakuza. In the past, this organization has done a grave harm to you, perhaps killing one of your beloved ones, and you have sworn revenge against it on every good opportunity that presents itself.

Benefit: Any encounter that results in an outcome which harms the organization in one way or another is worth double the usual amount of experience points to you. Such encounters may include standoffs that result in the death of organization members, disrupting their plans etc.

Special: The drawback of being a vigilante is that your quest for vengeance often overshadows your other pursuits and sometimes your good sense. Whenever a good opportunity to harm the organization in some way pre-

sents itself (as determined by the Gamemaster), you have to make a DC 15 Will save to resist the temptation to follow it. If you fail this saving throw, you have to pursue the opportunity for at least a day before you receive another saving throw. Of course being a vigilante doesn't mean that you have a death wish; you only pursue opportunities for vengeance that have a good chance for success (again, as determined by the Gamemaster). You are assumed to automatically make your saving throw against opportunities which seem to lead into suicidal confrontations.

The Gamemaster is responsible for working this feat into his stories. If he doesn't plan any confrontation with the criminal organization for three consecutive stories, you have the option to "cash in" the feat. If you do so, you gain 500 times your character level in experience points but you lose any further benefit of the feat.

Vital Strike

Choose a specific melee or ranged weapon, such as a Steyr TMP. You have become an expert in using it to strike vital spots.

Prerequisites: Proficient with selected weapon, Weapon Focus (with selected weapon), Weapon Specialization with (selected weapon), Improved Critical (with selected weapon), Improved Weapon Specialization (with selected weapon), base attack bonus +12.

Benefit: When attacking with the selected weapon, you automatically confirm any threat as a critical hit without having to make a roll.

Special: You can gain this feat multiple times. Each time you take the feat, you must select a different weapon.

Weapon Expertise

Choose a weapon template, such as heavy machine pistols. You are an expert with all weapons of that category.

Benefit: Any feat that applies to a weapon of the selected template, also applies to any other weapon of the same template. For example, if you have taken Weapon Focus with a Steyr TMP (a heavy machine pistol), the effects of Weapon Focus also apply to any other heavy machine pistol you pick up.

Special: You can gain this feat multiple times. Each time you take the feat, you must select a different weapon template.

Weapon Specialization

Choose a specific melee or ranged weapon, such as a

Steyr TMP. You are deadly when wielding this weapon.

Prerequisites: Proficient with selected weapon, Weapon Focus (with selected weapon), Base Attack Bonus +4.

Benefit: You get a +2 bonus on damage rolls with the selected weapon.

Special: You can gain this feat multiple times. Each time you take the feat, you must select a different weapon.

Wide Burst

You can fire wider bursts that can hurt more than one opponent.

Prerequisites: Wisdom 13, Personal Firearms Proficiency, Advanced Firearms Proficiency, Burst Fire, Base Attack Bonus +4.

Benefit: When you make a burst fire attack, you have the option of affecting two opponents in adjacent squares (although not someone standing behind of the other). If

you do so, you make a single attack roll (with an additional -2 penalty) and compare the result to the Defense of each opponent separately. A target hit by q wide burst only takes +1 dice of damage.

Winged Tiger Style

You are able to make powerful flying kicks when charging an opponent.

Prerequisites: Dexterity 13, Combat Martial Arts, Base Attack Bonus +3.

Benefit: You are able to use a charge in order to deliver a flying kick to the opponent. When you do so, multiply your Dexterity bonus by 1.5 and add it to the damage your unarmed strike delivers, if successful.

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Some weapons, including among others shotguns firing buckshot, needlers, flechette grenade and rockets, cause massive trauma against "soft" targets (ie targets without armor protection or soft objects) but are lousy at penetrating hard materials and thus are very ineffective against "hard" targets (targets with armor or hard objects).

[Such weapons cause a percentage of secondary damage. The exact percentage varies from weapon to weapon, but the effects are the same: after armor resistance or an object's hardness is applied, any remaining damage is increased by the listed percentage. Weapons inflicting secondary damage will typically boost an armor's resistance or an object's hardness, becoming very hard to penetrate them.]

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