



SUPPLEMENTAL RULES

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DARK CONSPIRACY

OVERVIEW

This supplemental rules summary is intended to augment the base Dark Conspiracy book (1st edition). Rules in later editions (Empathic Sourcebook, 2nd edition) may be used where they do not conflict either the 1st edition or these rules.

The main changes within these supplemental rules are:

- Reduce the ability to “min/max” a character during character creation.
- Balance initiative and ability checks.
- Revert to original Easy/Average/Difficult tests.
- Add combat options and simplify where possible.
- Simplify automatic gunfire and make it a little more effective to go full-auto.
- Add rules for poisons, radiation, and other omitted topics from all editions.
- We still strive to maintain, as much as possible, the original “look and feel” of the 1st edition rules. Often, original 1st edition material has been summarized here in the corresponding sections for ease of reference.

This document represents our gaming group’s best effort to summarize what we consider beneficial changes to an incredibly satisfying and time enduring game system. Nothing here is intended as a copyright challenge to GDW, “Dark Conspiracy” or any copyright owner of material included herein.

It is certainly not intended for resale.

If you’re unsatisfied with any of the contents within, we’re sorry.

If you find any of the material within to be useful, then please enjoy with our compliments and if you find time, let us know!

Comments, suggestions, death threats, or Jovian extraterrestrial specimens may be sent to scottee.mac@gmail.com.

CREDITS

This document was compiled by Scott McClenaghan with proofreading and play testing by Alex W., Chris H., Jason H., and Kevin S.

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CHARACTER CREATION

ATTRIBUTE GENERATION

Rather than normal point allocation, it is suggested that players allocate 36 points to each of the seven attributes with the following restrictions.

- Empathy is purchased at a ratio of 2:1
- No secondary skill can be used to increase an attribute beyond 8.
- All attributes except Empathy are purchased as follows:

Increase to:	Cost Ratio
1-6	1:1
7-8	2:1
9-10	3:1

Example: a Strength score of 9 would cost 13 points (6 x 1, + 2 x 2, + 1 x 3).

SKILLS

Use background skills and careers to increase your character's skills. Once a skill level surpasses its controlling attribute, skill points are earned at half the normal rate. (So if a character has Small Arms – Pistol of 5, and his Strength is 5, it will take two ranks bestowed by a background skill or career to increase that skill level to 6).

INITIATIVE

Initiative is determined by career. Characters with military careers roll a D6 for initiative and add any bonuses to the result. Characters with no military careers roll a D4 and add any bonuses to the result. A character not wanting to leave initiative to chance can accept a 2 for his die roll and add any bonuses to that result.

CAREER LIMITS

Players are limited to four career terms. Selecting more or less should entail corresponding bonuses or penalties from the GM beyond aging modifications.

DERIVED SCORES

HIT CAPACITY: Characters determine their Base Hit Capacity as follows:

Hit Region	Hit Capacity (Base)
Head	Strength + Constitution
Chest	2 x (Strength + Constitution)
Left Arm	Strength + Constitution
Right Arm	Strength + Constitution
Left Leg	Strength + Constitution
Right Leg	Strength + Constitution

LOAD: A character's Load in kilograms is $3 \times (\text{Strength} + \text{Constitution})$.

THROW RANGE: A character's Throw Range in meters is $4 \times \text{Strength}$.

UNARMED DAMAGE RATING: First compute the character's Unarmed Combat Base:
Unarmed Combat Base = (Strength times Unarmed Melee Skill) / 10 + Strength + Unarmed Melee Skill

Next cross reference the Unarmed Combat Base with the Unarmed Damage Rating given in the table below. This is the amount of dice normally rolled for Unarmed Strike Attacks.

Unarmed Combat Base	Unarmed Damage Rating (Dice Rolled)	Min	Average	Max
< 6.0	D-3	1	0.5	3
< 9.0	D-2	1	1.5	4
< 12.0	D-1	1	2.5	5
< 15.0	D	1	3.5	6
< 18.0	2D-3	1	4	9
< 21.0	2D-2	1	5	10
< 24.0	2D-1	1	6	11
< 26.0	2D	2	7	12
< 28.0	2D+1	3	8	13
< 30.0	2D+2	4	9	14
30.0	2D+3	5	10	15

WEIGHT: The character's weight in kilograms is computed as follows:

Male	$80 + 4(\text{Strength} + \text{Agility})$
Female	$65 + 4(\text{Strength} + \text{Agility})$

ABILITY AND SKILL CHECKS

ABILITY CHECKS

Ability checks are made by rolling 2D6-1 and comparing it to the attribute (for an Average check); a roll equal to or less than the attribute score succeeds. Double the attribute for an Easy check, half it for a Difficult one, and quarter it for a Formidable check. An 11 always fails regardless of modifiers or difficulty; a 1 always succeeds.

SKILL CHECKS

Add the skill level and its controlling attribute (for an Average check). Double this sum for an Easy check, half it for a Difficult check, and quarter it for a Formidable check. Now add or subtract any modifiers; this is the target number. A character must roll equal to or less than the target number on a d20 to succeed, although a 19 or 20 always fail regardless of difficulty or modifiers (or a 17-20 for Small Arms or Heavy Weapons tasks).

A critical success is achieved by rolling a natural 1.

A catastrophic failure may occur when a natural 20 is rolled. Roll another skill check (at the same difficulty and with the same modifiers). If this check also fails, a catastrophic failure has occurred; if this roll succeeds, nothing results from the failure except perhaps some embarrassment.

COMBAT AND DAMAGE

THE GRID SYSTEM

The standard unit of movement on Dark Conspiracy maps is a 2 meter square. (Outdoor maps may optionally use eight meter squares.) Only one medium sized creature may occupy a single 2 meter square (although allies may freely pass through the square with no movement penalty.) A character cannot move into a square unless he has enough movement left to completely traverse the square.

Diagonal movement: Every other square diagonally traveled in a player's movement phase is doubled. *Example: A character wishes to move two meters east, 2 meters northeast, 2 meters north, and another 2 meters northeast. The total is 2 east + 2 northeast (1st diagonal) + 2 meters north + 4 meters (2nd diagonal) for a total of 10 meters. The player would not be able to do this unless he trotted.*

THE COMBAT TURN

Each player's turn consists of a Combat Action and zero or more Free Actions.

COMBAT ACTIONS

- Make an armed or unarmed melee attack.
- Fire a weapon.
- Aim a weapon.
- Throw an item.
- Reload a standard firearm (some weapons take longer).
- Use an item.
- Crawl up to ½ of the player's listed movement rate. (4 meters for humans).
- Walk up to the player's listed movement rate. (8 meters for humans).
- Trot up to twice the player's listed movement rate. (16 meters for humans).
- Run up to four times the player's listed movement rate. (32 meters for humans).
- Withdraw up to ½ of the player's listed movement rate (4 meters for humans).
- Mount/dismount or enter/exit a vehicle.
- Fall prone.

- Stand up.
- Ready equipment; this can include drawing a weapon, sheathing or stowing a weapon, or linking belts of ammunition,
- Hand equipment to another player within 2 meters.
- Receiving equipment from another player within 2 meters.

COMBINING COMBAT ACTIONS: Walking and trotting actions can be combined with melee attacks, reloading magazine weapons, falling prone, using some items, readying most equipment, handing equipment to another player or receiving equipment from another player with no penalty. They may be combined with firing small arms with restrictions (see that section for details). When Walk or Trot is combined in this way, the character moves half as far as he normally would.

Running can be combined with melee attacks. See the Melee Unarmed and Melee Armed sections below (Diving Blow and Charge Attacks). Running must be done in a relatively straight line for each action.

Mounting/dismounting, crawling, standing up, aiming, reloading non-magazine weapons, and withdrawing cannot be combined with any other actions.

A character can use his action to hand equipment to another player. If the receiving player does not use his next action to accept it (or is unable to), then the equipment is dropped in the receiving player's two meter square.

FREE ACTIONS

- Drop an item in hand.
- Talk.

A dropped item lands in the same square as the character that dropped it, which can be any square he has moved through during his action.

Talking cannot occur over gunfire.

DETERMINING INITIATIVE

Each character rolls a number of D6 equal to his Initiative. The result is his Combat Initiative. Combat proceeds with the highest Combat Initiative acting first. Characters with Combat Initiative rolls exceeding 10 will act at their rolled score, and again for every value above zero for which they can keep subtracting 10 from their score. Characters with Combat Initiative value of 0 still act on 0 unless

otherwise prevented from acting, but a character with Combat Initiative 10 (or 20) would not also act on 0.

Example: Joe has Initiative 2, and rolls a 5 and 6 for a total Combat Initiative of 11. That character acts at 11 and 1. If that character had an Initiative of 4 and rolled a 22 for his Combat Initiative, he would act on 22, 12, and 2.

FLAT FOOTED CHARACTERS

Characters who have not acted yet are considered flat footed. Such characters are not able to use Dodge actions, Block actions, Opportunity Fire, or Attacks of Opportunity (see below). Once a character takes his first action, he is no longer flat footed.

AMBUSH ATTACKS

If one or more attackers are not visible to defenders at the beginning of combat and initiate combat, treat them as if they had an Initiative of 6. All remaining combatants must make a Panic Check by rolling a D6. If the result is equal to or less than their Initiative, there is no effect. Otherwise, their Initiative is reduced by the amount they missed their panic check. Initiative cannot be reduced below 0 in this manner (and those characters can still act on 0.) After rolling Combat Initiative, all actions that would have occurred before the ambusher's first attack are ignored. Characters with initiative rolls higher than the ambushers can act immediately after them and at every interval for which they can still subtract 10. Each character is considered surprised until he takes his first action or receives damage (becoming flatfooted instead of surprised in the latter case.) In addition to the effects of being flatfooted, all melee attacks against surprised characters automatically hit and do damage to the hit location of the attacker's choice.

Example: Joe is on a rooftop of a warehouse waiting for three men to exit. None of the men sees, hears, or is otherwise alerted to Joe's presence. As soon as all three are in full view, Joe opens fire with his Uzi. Normally, Joe's Initiative is 3, however for this first round, his Initiative is 6, and he rolls a 19.

Victim 1 has an Initiative of 4. However he rolls a 5 on his Panic check and so deducts 1 from his initiative, leaving him with an Initiative 3. Victim 2 has an Initiative of 4 and rolls a 3 on his Panic Check (making it) and so rolls Initiative as normal. Victim 3 has an Initiative of 2 but rolls a 5 on his surprise check leaving him with initiative of 0. The victims roll Combat Initiatives of 12, 21, and 0, respectively.

Combat begins and all actions prior Joe's 19 are ignored. On 19, he gleefully opens fire; killing Victim 1 outright and wounding Victim 3. Victim 2 (with initiative of 21) modifies his initiative to 18 (to immediately follow Joe) and uses

his action to draw a weapon. Victim 1 would have acted on 12 and 2 except that his head is in four pieces. Joe acts again on 9, and does a Dive Attack at Victim 3 (who is still flatfooted since he hasn't acted yet.) Victim 3 is knocked prone and takes some more damage. Victim 2 acts again on 8, firing at Joe. Victim 3 stands up and draws a weapon on 0 (assuming his initiative wasn't modified by his injuries!) Initiative is now rolled as normal for the following round.

ATTACKS OF OPPORTUNITY

A character that threatens one or more squares (determined by weapon type) may be able to interrupt the initiative sequence to attack a target that enters or leaves a threatened square. This is called an Attack of Opportunity and occurs immediately after the advancing character enters or leaves that square (before he can complete his action). After the attack is resolved, the moving character then completes his action as normal (assuming he is still able to do so). A character can make only one attack of opportunity between actions.

MELEE WEAPONS: A character with a melee weapon threatens any square on the combat grid adjacent to him that he is facing. He may attack another character entering a square he threatens if the advancing character either has no melee weapon, or has a melee weapon of a smaller range than his own. He may also attack any character leaving a threatened square regardless of what weapon that character has unless the retreating character is using his action to Withdraw (a move at half speed).

WITHDRAWING CHARACTERS: Characters may use a Withdraw action (a move at half of that character's walking speed) to withdraw from melee combat. For their two meters (one square) of movement, withdrawing characters are not subject to the attacks of opportunity normally permitted against characters leaving squares threatened by armed melee attackers (however, they still provoke attacks of opportunity when leaving other such threatened squares or when entering threatened squares). Of course, combatants are free to pursue withdrawing characters (particularly since they travel faster).

DIRECT FIRE: A character with any small arms weapon threatens the square they are actively aiming at. So long as the shooter is not using a scope, then he also threatens all squares in a direct path between him and the square he is aiming at. Characters who are not aiming do not threaten any squares. Shots fired via an Attack of Opportunity are quick shots unless the shooter was already aiming at his target. Once opportunity fire is conducted, the shooter cannot fire again until his next normal action (at which time, he will have lost his aim.)

INITIATIVE EVENTS

Some events occur independently of character actions (such as explosive charge hangfires or burn damage). These events occur in terms of action segments, and a character can normally only act once per ten action segments. Each action segment is about a half a second, with each turn lasting roughly 18 seconds. For the purposes of which action segment an event occurs, always assume each turn has 36 action segments.

A hangfire, for example, may cause a charge to explode 45 action segments after it was set off. If a character set it off on his turn (at action segment 19), it would delay 19 segments on the first round, and delay another 26 segments on the next round ($19+26=45$), exploding on action segment 10 of the next round.

Some events (like burn damage) occur on fixed action segments. Open flame damage occurs on 30, 20, 10, and 0. Even if no character has an initiative equal to or exceeding 30, the 30 event still triggers. Thermite and white phosphorous damage occurs on every even action segment after contact. Empathic events (as from a sorcerer) will often occur on fixed action segments.

PANIC

Whenever characters are surprised (as from an Ambush Attack, above), there is a chance they will panic. To determine if a character freezes up, he makes a Panic Check (roll 1D6) and reduces his Initiative (not **combat initiative**) by the amount by which the die roll exceeded his Initiative (possibly none).

If a character is knocked down by wound damage, he will also make a Panic Check and will lose as many actions as his Panic Check exceeds his Initiative (again, possibly none), however if a character loses more than one action in this way, he may choose to fall prone during his second missed action, in which case he remains there until able to act again.

Characters exposed to various other combat events may also be required to make a Panic Check. Examples include but are not limited to exposure to chemical or tear gas, being in the immediate path of a charging vehicle, or being attacked by a particularly terrifying or overwhelming creature.

MELEE COMBAT

UNARMED STRIKE ATTACKS

Characters must be within 2 meters of each other to make unarmed melee attacks.

A strike attack is an Average task versus Melee Combat (Unarmed) skill. Success means the attack hits. A critical success doubles the damage. In the case of a surprise attack, no roll is made; the attack automatically hits the hit location of the attacker's choice. Unarmed Strike Attacks provoke an attack of opportunity from opponents armed with melee weapons. (See Attacks of Opportunity).

Unarmed Strike Attack rolls may be modified by aiming for specific hit regions or by size. See Other Combat Modifiers for details.

BLOCKING STRIKE ATTACKS: If a character successfully hits an opponent, the opponent may be able to block the blow. Characters may attempt to block an attack at any time when a blow is directed at them, but the block counts as one of the blocker's actions for that combat turn. (If the opponent has no actions remaining but still has an initiative score of at least 1, he may block one additional time and reduce his next turn's initiative by 1.) Blocking is a Difficult task versus Melee Combat (Unarmed) skill. Success means that attack has no effect. A critical success means the blocking character does not lose an action. Surprise attacks cannot be blocked.

HIT LOCATION OF STRIKE ATTACK: Hit locations (if the attack succeeds and is not blocked) is rolled on the appropriate column of the Human/Animal Hit Location Chart (biped or quadruped). The die roll for hit location is not made for a surprise attack (see ambush rules) nor for an aimed attack. In both of these cases, the attacker is allowed to choose the hit location.

DAMAGE: Attacker rolls damage dice equal to his Unarmed Damage Rating.

ARMOR: Armor absorbs points of damage equal to its armor value from each strike attack and suffers no damage itself. Half of the damage absorbed by the armor (round up) is inflicted on the body part the attacker used to make the strike.

ARMED STRIKE ATTACKS

Armed melee combat is conducted with handheld striking weapons. An armed melee attack is an Average difficulty task versus Melee Combat (Armed). Some weapons add or subtract a modifier to the character's Melee Combat (Armed) skill; however this cannot reduce the skill to less than 1. In the case of a surprise

attack (see Ambush rules), no roll is made; the attack automatically hits the hit location of the attacker's choice.

Armed Strike Attack rolls may be modified by aiming for specific hit regions or by size. See Other Combat Modifiers for details.

RANGE: There are two general categories of melee weapons: short and long range. Characters must be within two meters for short-range attacks, or within four meters for long range attacks. If a character with a short range weapon (including unarmed combat) attacks a character with a long range weapon, he provokes an Attack of Opportunity from the defender (see below) before each of his attacks.

BLOCKING ARMED ATTACKS: If the defender is also armed with an appropriate melee weapon, is not flatfooted or surprised, and wishes to attempt to block the strike, the character may give up his next action to do so. A block is a Difficult level task versus Melee Combat (Armed). Success means the attack is blocked, but an outstanding success means the blocking character does not lose an action for the turn.

DAMAGE: Damage inflicted from a melee attack depends upon the type of weapon being used. The Melee Weapons Chart gives the number of damage dice rolled for each type of weapon.

ARMOR: Armor absorbs hits equal to twice its armor level from each armed melee combat attack and suffers no damage itself.

CHARGING

Charge attacks are melee attacks combined with a Run action (at half speed). A charge is an Average task versus the appropriate Melee Combat skill. It cannot be blocked but it can be avoided if there is room for the defender to move to. There must be at least four meters (two empty 2 meter squares) between the attacker and the defender before a charge can be attempted.

A charge can extend over several actions. Each action's charge must be a straight line and cannot alter direction by more than 45 degrees from the last action's charge. (It is assumed the character is charging in a wide berth, not in a series of 45 degree angled legs).

Charging characters cannot take block or dodge actions, cannot threaten squares, and are at +2 to hit from any attacks of opportunities of others. If a charging character suffers damage during his charge or is otherwise interrupted, he must make a Difficult Willpower skill check or his charge begins anew from the point of

interruption UNLESS it is the target who strikes the attacker with a melee attack of opportunity.

Characters cannot target specific hit regions with their charge attacks.

AVOIDANCE: A character who is not flatfooted or surprised can use an action to attempt to avoid the Charge Attack so long as there is a free two meter square to move to. Avoiding is a Difficult task versus Agility. Success indicating that the attack was avoided; a critical success indicates no action was wasted in doing so.

EFFECTS: If a charge attack hits and is not avoided, the defender will suffer wounds to a random hit location equal to normal combat damage + 1 for each 4 meters traversed in the charge to a maximum of double the rolled damage (triple for a critical success). Half of any damage absorbed by the target's armor or cover is applied to the charger in two random hit locations.

DIVING BLOWS

Diving blows are attempts to throw oneself at an enemy and knock him down. Blocking is not possible but Avoidance is. A Diving Blow is an Average task versus Melee Combat (Unarmed) and must be combined with a Trot or Run move action (at half speed). There must be at least one empty 2 meter square between the attacker and the defender before a Diving Blow can be attempted. Attackers cannot aim Diving Blows.

AVOIDANCE: A character who is not flatfooted or surprised can use an action to attempt to avoid the Diving Blow. Avoiding is a Difficult difficulty task versus Agility. Success indicating that the attack was avoided; a critical success indicates no action was wasted in doing so; a botch indicates the defender is flat footed for the duration of the Diving Blow attack.

EFFECTS: If a diving blow hits and is not avoided, either the attacker or defender may be knocked down and suffer wounds. Both make Knock Back checks as follows. The attacker rolls 2d6 and adds his Strength. The defender rolls 2d6 if he is not flatfooted and is aware of the attack or 1d6 otherwise and in either case adds his Strength. If the attacker's score is higher than the defender's, he inflicts damage equal to the difference and may push the defender one meter in the direction of the attack plus an additional meter for each meter the attacker follows through (cannot exceed the score difference or the attacker's Strength). If the defender was moved at least one meter, he must make a Difficult Agility check or fall prone.

If the defender's score is higher than the attacker's, the attacker suffers damage equal to the difference and must make a Difficult Agility check or fall prone.

If the attacker and defender tie, there is no effect and the attacker remains standing in the two meter square adjacent to the defender.

Damage from Diving Blows is split evenly between two randomly determined hit locations (may be the same). If a leftover point exists, assign it to the first location rolled.

SIZE MODIFIERS: Normal size modifiers apply to the initial Unarmed Strike Attack. The attacker also gains a +1 bonus or -1 penalty to his Knock Back check for every size class he is larger or smaller than the defender respectively. (Smaller defenders are harder to hit, but easier to knock back). The defending Knock Back check is unmodified.

GRAPPLING ATTACKS

Grappling is an attempt to subdue an opponent without doing him any real harm. Blocking is not possible, there is no hit location to be rolled, and armor has no effect.

To Grapple, an attacker must first succeed at an Unarmed Strike Attack (include any modifiers). Instead of applying damage, the attacker makes a Grappling check (an Average task versus Agility). If it succeeds, he deals damage dice equal to his Unarmed Damage Rating, but all damage points are termed Controlling Hits.

Controlling Hits are not actual damage, but rather a measure of the extent to which one character has physically controlled another (with a hammer lock, a bear hug, etc...). So long as an attacker has any amount of controlling hits over a defender, he need only make Grappling checks each round (he does not need to make an Unarmed Strike Attack first).

Once an attacker has inflicted a number of Controlling Hits on a defender equal to the defender's Strength, the defender is totally controlled and ceases struggling. Until that time, the defending character may attempt to escape or may grapple with the attacking character. If both characters grapple, the first one to achieve Controlling Hits equal to the opponent's Strength controls the other.

A controlled character may not move, nor may the controlling character move without releasing control (all controlling hits disappear).

Grappling provokes an attack of opportunity from unarmed opponents and opponents armed with melee weapons. (See Attacks of Opportunity, below.)

ESCAPING GRAPPLE ATTACKS: An escape attempt is resolved in exactly the same way as a grapple, but if the attempt is successful, hits are removed from the

accumulated total which the other character has already built up. (The defender rolls damage dice equal to his Unarmed Damage Rating to determine hits removed – twice this many for a critical success).

STRANGLING: Strangling is handled like grappling, with three main differences:

- The initial Unarmed Strike Attack may be blocked as a normal melee attack would be (unless the defender already has accumulated Controlling Hits from his attacker).
- Armor prevents damage as it normally would for Unarmed Strike Attack damage.
- The initial Unarmed Strike Attack roll incurs the standard -4 penalty for an aimed attack to the neck (head). Any previous Controlling Hits for Grappling do not apply towards Strangling but are added as a bonus to the initial Unarmed Melee Strike roll. (Controlling Hits are then reset to 0 as the attacker attempts to accumulate more).
- A character who becomes totally controlled becomes unconscious and begins to suffer head wounds equal to the attacker's unarmed combat damage rating during each of the attacker's actions for as long as the hold is maintained. If the hold is released before death ensues, the victim rolls to regain consciousness per the serious wound rules. *Note:* Garrotes double the attacker's rolled damage and triple it for a critical success.

SIZE MODIFIERS: Normal size modifiers apply to the initial Unarmed Strike Attack for either Grappling or Strangling. The attacker also gains a +1 bonus or -1 penalty on his Grappling Check for every size class he is larger or smaller than the defender respectively. (Smaller defenders are harder to hit, but easier to control).

OTHER COMBAT MODIFIERS

AIMED STRIKE ATTACKS: A character may concentrate his armed or unarmed strike attacks against a particular body region. If such an attack succeeds, the die roll for hit location is not made (a critical success still doubles the damage done). The appropriate Melee Combat skill target number is modified as listed below:

Region	Melee Modifier
Chest or Abdomen:	-2
Arm or Leg:	-2
Head:	-4

VISIBILITY: Unless a character has some method of compensating for poor visibility conditions, he suffers penalties:

Visibility	Melee Modifier
Fog, Haze, Rain or Snow	-1
Moderate Smoke (Fire) or Night (Moonlit)	-2
Thick Smoke (Tear gas) or Night (Moonless)	-3

SIZE: Unarmed Strike Attacks, Armed Strike Attacks, Charge Attacks, and Diving Blow Attacks are modified further based on the size of the target as listed in the table below. For each size category that the attacker is larger than the target, he gets a -1 penalty. For each size smaller the attacker is than the target, he gains a +1 bonus. Note that bonuses and penalties are generally half that of size modifiers for direct fire attacks.

Size also modifies Knock Back rolls, Grappling rolls, and Escape rolls. See the appropriate section for details.

Avoidance and Block actions are not modified by Size.

SIZE	At least	Less than	Hit Modifier for Medium Attacker
Fine	½ inch	4 inches	-4
Diminutive	4 inches	1'	-3
Tiny	1'	2'	-2
Small	2'	4'	-1
Medium	4'	8'	-
Large	8'	16'	+1
Huge	16'	32'	+2
Gargantuan	32'	64'	+3
Colossal	64'	over	+4

FIRE COMBAT

Direct fire is conducted by characters who can actually see their target and who fire in a direct line toward it with the intention of obtaining a direct hit. Indirect fire is usually conducted by characters who cannot see their target and instead fire at a high angle to lob their rounds over intervening obstacles with the intention of coming down in the near vicinity of the target.

Characters can only fire one weapon at a time. Characters with no skill in a weapon type may not fire it.

RATE OF FIRE

All weapons in the game have a reload rating (Rld) or a rate of fire (ROF) rating. Weapons with a reload rating hold only one round in the weapon at a time, and once that round has been fired (one action), a number of actions (equal to the reload rating) must be spent reloading before the weapon can be fired again. If the weapon is listed as having more than one loader as part of its crew, each loader must spend the indicated number of actions reloading.

Weapons with a rate of fire listing have either a letter code or number:

- **SS (Single Shot):** This weapon can only fire one round and then must be reloaded.
- **BA (Bolt Action), LA (Lever Action):** These weapons can fire one round per action. Each time a round is fired from one of these weapons, the bolt or lever must be worked to eject the spent casing and chamber a new round. But this can be done in the same action in which the weapon is fired.
- **PA (Pump Action), DAR (Double Action Revolver):** These weapons may fire up to three rounds per action. Pump action refers to shotguns, and involves working a lever between shots to eject the spent cartridge and chamber a fresh one. A double action revolver cocks its hammer with the first part of the trigger pull, and then fires with the second. This makes the trigger pull somewhat harder than in a semiautomatic pistol.
- **SA (Semiautomatic):** Semiautomatic weapons may fire up to five shots per action. Each squeeze of the trigger fires one round, and the force of its firing automatically recocks the weapon.
- **Automatic Fire:** Weapons with a number instead of a letter code are capable of fully automatic fire as well as semiautomatic fire. The number shown is the number of bullets in a typical burst from the weapon. Each automatic weapon can fire up to either five individual shots or five bursts per action. As a practical matter, however, no character may fire at more than three different targets in the same fire phase.

RELOADING

All small arms have a magazine (Mag) listing which consists of a number and, in some cases, a letter code. This shows the type of feed device used for ammunition in the weapon and the number of rounds in it. The most common form of feed device in small arms is a box magazine which attaches through the stock or pistol grip. *Weapons with no letter code after their feed value are fed by box magazines*, each of which contains the number of rounds shown.

One reloading action is sufficient to detach an empty box magazine and insert a full one. Reloading a firearm that uses magazines can be combined with a Walk or Trot action at half move with no penalty. Firearms with other feed devices cannot be reloaded while moving.

Other forms of feed devices are noted by letter code:

- **R (Revolver):** A revolver's feed device is a non-detachable revolving cylinder which usually holds six bullets. If loaded individually, three bullets can be put into the cylinder per reloading action. If a quick loader is available (a circular clip holding six cartridges which enables all six to be dropped into the open cylinder at once), one reloading action is sufficient to reload the weapon.
- **I (Individual):** Weapons with non-detachable magazines, particularly under barrel tubular magazines, often have to be reloaded one shell at a time. Up to three bullets may be loaded into an I-class feed device per reloading action.
- **B (Belt):** The weapon, either a machinegun or automatic rifle, is fed by a belt usually containing from 50 to 100 bullets. Two reloading actions are necessary to replace a belt. However, if the machinegun has a two-man crew (gunner and loader), this requirement can be met by both expending one action reloading in the same turn.
- **C (Cassette):** A cassette is a large self-contained ammunition feed system which takes one full turn to replace.

DIRECT FIRE HIT PROCEDURE

MARKSMANSHIP: All small arms use Small Arms (Pistol or Rifle) as their marksmanship skill except for bows, which use the Archery skill. Crossbows use Small Arms (Rifle). Large caliber guns and howitzers use Heavy Weapons. Grenade launchers use Small Arms (Rifle) or Heavy Weapons, whichever value is greater. All other heavy weapons use the heavy weapons skill.

AIMED SHOTS: An aimed shot is an action that takes place after at least one action has been spent aiming the weapon. For an aimed shot to be allowed, the target must be visible in both the aiming and firing actions and all time in

between; also, the player must dictate the target being aimed at. While it is possible to aim at one target and then fire at another, the benefits of the aiming action are lost in doing so. If more than one action is spent aiming at the same target, the firer gains a +1 bonus to hit for each action spent aiming after the first (to a maximum of +4).

QUICK SHOTS: Any shot that is made without being preceded by an aiming action is considered a quick shot (this includes shots at a target other than the one originally aimed at). Even if an aiming action is performed prior to fire, if more than one shot is fired in the action, only the first counts as aimed; all subsequent shots are considered quick shots. Quick shots are taken at a -4 penalty.

LASER SIGHTS: Laser sights may be fitted to any small arm (at additional cost) and can only be used in semiautomatic fire. Laser sights may only be used at 40 meters or less, and enable up to three shots fired during an action to count as aimed shots instead of only the first one (all other shots fired in the action count as quick shots). All other modifiers (movement by target, movement by firer, etc...) still apply. Ultraviolet and infrared laser versions exist.

SIZE: Direct fire is modified further based on the size of the target as listed in the table below. For each size category that the attacker is larger than the target, he gets a -2 penalty. For each size smaller the attacker is than the target, he gains a +2 bonus. Note that this is generally double the bonus or penalty used for melee attacks.

SIZE	At least	Less than	Direct Fire Hit Modifier for Medium Attacker
Fine	½ inch	4 inches	-8
Diminutive	4 inches	1'	-6
Tiny	1'	2'	-4
Small	2'	4'	-2
Medium	4'	8'	-
Large	8'	16'	+2
Huge	16'	32'	+4
Gargantuan	32'	64'	+6
Colossal	64'	over	+8

RANGE: There are four ranges for direct fire: short, medium, long, and extreme. *The value printed in the range column of the weapons table is the weapon's short range in meters. Medium range is twice this; long range is twice medium, and extreme range is twice long range.*

It is an Average task versus the appropriate marksmanship skill to hit a target with direct fire at medium range. At short range, the firer gains a +4 bonus. At long range, he incurs a -4 penalty, and at extreme range he incurs a -6 penalty. A natural 2 on the marksmanship skill roll is an automatic hit; a natural 1 is a critical hit. (However at extreme range, only a natural 1 is an automatic hit and it is only a critical hit if a 2 would normally be a hit for that attempt).

Other direct fire modifiers are listed below:

Target is moving at a walk.	-2
Target is moving at a trot.	-4
Target is moving at a run.	-6
Target obscured (fog, haze, rain, snow, aiming into dusk/dawn).	-2
Target obscured (moderate smoke, moonlit night).	-4
Target obscured (thick smoke, moonless night).	-6
Target is prone.	-4
Target bound or held.	+4

RIFLE SCOPES: Sniper rifles come with a scope fitted to them, and other rifles may be purchased with a scope attached, for an additional price. The printed range on the appropriate tables is for a rifle without a scope. If a scope is mounted, add 15 meters to the printed range figure *when conducting aimed shots*.

RECOIL: Recoil is a measure of how much a weapon kicks when it is fired. For the purposes of this game, recoil affects only small arms, not heavy weapons. Each small arm has a recoil value listed for a single shot. If it is capable of automatic fire, it also has a recoil value listed for firing a burst. Whenever a character fires a small arms weapon, total the amount of recoil the weapon generates that action by multiplying the recoil of a single shot or burst by the number single shots or bursts fired.

Once you know how much recoil the weapon generates in an action, compare the total to the firing character's Strength. If the recoil is equal or less than the character's Strength rating, fire is resolved normally. If it is greater than Strength, reduce the final hit number of all shots/bursts **after the first** by the difference. (The first shot or burst is fired with only the recoil penalty of that single shot or burst – again, adjusted for Strength).

PISTOLS: Pistols may be steadied by using both hands and bracing yourself. This may only be done while stationary and it reduces the printed recoil value by 1.

TWO WEAPONS: Characters who are carrying two weapons at once (one in each hand) may fire either one in a single action, but not both. For the purposes of controlling recoil of either weapon the effective Strength ratings of such characters are reduced by 1.

AUTOMATIC FIRE

AUTOMATIC FIRE HIT PROCEDURE: Firing one or more bursts per action is considered automatic fire. The hit procedure is the same as the direct fire hit procedure with the following changes:

- Shooters roll versus their appropriate marksmanship once per burst rather than once per shot. All combat modifiers for range, aiming, and recoil are the same as the direct fire hit procedure.
- For every 2 points you beat your target number by, an additional shot from the burst hits (up to the maximum number of shots per burst).
- A natural 1 indicates a critical success (except at extreme range) and indicates that you hit with an additional round from the burst for every 1 point you beat your target number by (up to the maximum number of shots per burst).
- An aim action benefits the entire first burst of shots.

INCIDENTAL FIRE: The **Incidental Fire Zone** is a path from the shooter to the target, which is 2 meters wide at Short range, 4 meters at Medium range, 6 meters at Long range and 8 meters at Extreme range. The Incidental Fire Zone extends as far behind the target as it is wide.

For each series of bursts, the **Incidental Rounds** is $\frac{1}{2}$ the number of missed rounds. If there are any Incidental Rounds, each target (except the intended target) within the incidental fire zone must make a Difficult Agility check to determine if they might be hit by one or more incidental rounds. A character rolls up to one D6 for every point he misses his Agility check by with each 5 or 6 indicating an incidental hit. Cover may still prevent damage from Incidental Rounds. The target number is modified as follows:

Per 2 meters from Primary Target	+1	Target Smaller than 1 meter	+1
Target at Medium Range	+1	Target Larger than 2 meters	-1
Target at Long Range	+2	Each meter larger than 2 meters	-1
Target at Extreme Range	+3	Target Prone/Crawling	+1

Incidental Rounds are actually only applied one at a time to targets who failed their Agility checks giving priority to those who failed their checks by the most

and dicing off for ties. If there are still Incidental Rounds after applying the first round of hits, assign the second round of hits in the same manner. So just because a character misses his Agility check by 4 doesn't mean he will necessarily roll 4D6.

If leftover Incidental Rounds cannot be applied because everyone has made their Agility check or has been hit by the maximum number of rounds their Agility check failure indicates, ignore the leftover rounds.

SUPPRESSION FIRE: If any characters pass the weapon's Incidental Fire Zone before the shooter's next scheduled action (whether he takes that action or skips it) or before 0 (if this occurs first), they must make a Difficult Agility check just as if he were originally in the Incidental Fire Zone. However, characters cannot be hit by more rounds than the original Incidental Rounds total (the other half of missed rounds.)

SHOTGUNS

Shotguns may fire either slugs or buckshot rounds. Slugs are fired in the same way as any other small arms fire, using the ratings provided on the small arms chart for the weapon. If the shotgun fires buckshot, however, several special rules apply.

Buckshot may only be fired at short and medium range. At short range, each shot is treated as a normal single shot but it does 9D6 damage. At medium range, each shot is treated as a 10 round burst of automatic fire. Each round which hits does 1D6 damage. Rounds which miss are checked for Incidental Fire as normal automatic fire is, however suppression fire is not checked for since the buckshot blast is instantaneous.

MOVEMENT WHILE FIRING

Movement by either the firing character or the target reduces the chance of scoring a hit.

ADVANCING FIRE: Characters may not fire while running or crawling. No aimed fire is possible while walking or trotting, but characters may fire quick shots or bursts. For purposes of controlling recoil however, a walking character's Strength is reduced by 1 and a trotting character's Strength is halved.

FIRE FROM MOVING VEHICLES: Characters may not conduct aimed fire from a moving vehicle. They may fire quick shots or bursts at -1 for every 10 mph (or 15kph).

FIRE FROM THE SADDLE: Characters firing while mounted on a draft animal or saddle horse do so the same as dismounted characters with two exceptions.

First, their movement category is based on the movement of the animal. Thus, characters on running animals may not fire at all, and those on walking or trotting animals suffers the listed Strength penalties to recoil. Second, the marksmanship skill used to determine the chance of hitting with single shots is either the character's appropriate weapons skill or Horsemanship skill, whichever is lower.

FIRING AT RIDERS: If the target is a rider on an animal, motorcycle, or bicycle, attackers must declare whether they are attacking the rider or the mount. In either case, fire is resolved normally, but if a single shot misses its intended target, it has a 10% chance of hitting the other. In the case of automatic fire, misses are re-rolled for additional hits in the Incidental Fire Zone as noted above, but half of all such additional hits are taken on the secondary target.

TARGET MOVEMENT: If the target is trotting, any attempt to hit it with direct fire is at -2. A running target is attacked with a -4 penalty. Anything moving faster than a human run (32 meters per action) is attacked at half the appropriate marksmanship skill (with a minimum of a -4 penalty). These penalties are ignored if the target is running directly towards the firer.

AMMUNITION

There are special types of small arms ammunition available:

ARMOR PIERCING ROUNDS: Armor Piercing ammunition has a penetration of one category better. If Short Range PEN is already 1, then Medium is decreased by 1 (becoming 2 if it was previously Nil). However damage is reduced by one. *Example: .44 ammunition fired from a Desert Eagle normally has 3 DAM and PEN of 2-Nil. Armor Piercing ammunition for this weapon would do 2 DAM but would have PEN of 1-Nil.*

Original Penetration			Armor Piercing Rounds		
Nil	Nil	Nil	2	Nil	Nil
2	Nil	Nil	1	Nil	Nil
1	Nil	Nil	1	2	Nil
1	2	Nil	1	1	Nil

HALLOW POINT: Hollow point ammunition has a penetration of Nil and does an extra +1 for each die of damage. *Example: .357 ammunition fired from a Desert Eagle normally has 2 DAM and PEN of 1-Nil. Hollow point ammunition for this weapon would do 2+2 DAM (2d6+2) but have PEN of Nil.*

INDIRECT FIRE HIT PROCEDURE

Indirect fire is generally fired at a target which the firing character cannot see, in which case the firer is directed by a forward observer who can see the target. Only weapons with an indirect fire range (listed on the weapons chart) may use indirect fire. These are rifle grenades, grenade launchers, howitzers and mortars.

CALLING FIRE: In order for indirect fire to be possible, the firing character or gun crew must be in communication (usually by radio) with a character (called a forward observer) who can see the target. The target is actually a stationary position; it can be a building but not a moving vehicle (although it can be the place where the forward observer believes the vehicle will be when the fire hits). Before fire begins, the forward observer must talk to the firer for one turn. After fire has begun, the forward observer may want to call in corrections to make the fire more accurate. The same restrictions on both characters' actions apply as with other communication; in particular, the firer may not fire the weapon during that conversation.

HIT DIFFICULTY LEVEL: Conducting indirect fire is normally a Difficult task versus the Heavy Weapons skill of the firing character or of the forward observer, whichever is less. Indirect fire with a rifle grenade or hand-held grenade launcher (M203) is a Formidable task (at $\frac{1}{4}$ of the character's skill).

DEVIATION: If the round deviates, roll a D10 and consult the scatter diagram (below) for direction of deviation. Multiply the amount that the Heavy Weapons task target number was exceeded by 5 meters for grenade launchers and rifle grenades, or by 10 meters for mortars and howitzers. This is the impact point of the deviated round.

CORRECTIONS: If the shot doesn't hit, the forward observer may call in corrections. After each correction, add 1 to the chance of a hit (which will also serve to limit deviation distance in the case of another miss). There must be at least one shot after a correction before another correction is possible.

ACCURACY: There is a limit to the accuracy of indirect fire. The maximum chance of a hit is 14 for mortars and howitzers and a 10 for rifle grenades and grenade launchers.

SUBSEQUENT SHOTS WITHOUT CORRECTION: Subsequent shots are made without correction bonus and will continue to deviate around the initial impact point (which may be the target in the event of a hit) until a correction is called in. Deviation for subsequent shots is reduced by 2 before multiplying by the appropriate number of meters (based on heavy weapon type).

SELF OBSERVED FIRE: Firing characters may act as their own observer if they can see the target. The rules above apply except that there is no delay for corrections; fire is corrected automatically after every shot until a hit is scored.

THROWN WEAPONS

NORMAL OBJECTS

Any hard object can be thrown at a target. Hitting the target with an object weighing one kilogram or less, at a distance less than or equal to a character's throw range (as calculated in character generation) is an Average task versus Thrown Weapons skill. Long range is twice the normal throw range and is a Difficult task. If the thrown object weighs more than 1 kilogram, the character's normal throw range is divided by the weight of the object to determine an adjusted throw range.

If a thrown object hits, it causes damage equal to the throwing character's Strength divided by 2 plus the object's weight in kilograms if it is 5kg or less. If it is over 5kg, it does $D6 + STR/2 + \text{weight in kg}/2$ damage. Thrown objects have an armor penetration of Nil.

HAND GRENADES

The basic procedure for throwing grenades is exactly as described under Thrown Weapons above. If the throw misses, determine distance and direction of deviation in the same manner as for Indirect Fire but multiply the result by one meter if within normal throw range or two meters if within long range. The total deviation may never be greater than half the distance to the target.

A player may throw additional grenades at the same target to increase chances of hitting. If the target does not move, add 1 to the thrower's Thrown Weapons skill for all grenades after the first.

HAND GRENADE, RIFLE GRENADE, AND HIGH EXPLOSIVE ROUND EFFECTS

The power of an explosion is described by concussion and burst. Concussion is the effect of the massive overpressure wave generated by the explosion, while the burst radius is the area filled with small, high energy fragments, often called shrapnel. These jagged metal fragments can cause severe injury, but they lose energy quickly due to their eccentric ballistic shape, and thus do not travel anywhere near as far as a bullet.

CONCUSSION: The number of concussion damage dice called for are rolled and divided by seven. All six body parts receive this amount of damage except for

the chest, which receives double this amount. The unapplied remaining points of damage (those not evenly divisible by seven) are added to body parts closest to or facing the blast.

The listed concussion value for an explosion is the number of damage dice rolled if a character is in physical contact with the explosion. Characters not in physical contact but within the same eight meter grid square as the explosion suffer half this concussion (rounding fractions down). Characters in an adjacent eight meter grid square receive one quarter of the original concussion value, rounded down and so-on until the concussion is reduced to 0.

COVER: Characters completely under solid cover do not suffer the effects of concussion. Characters under partial cover do not apply damage to the covered regions. Prone characters receive half damage to all exposed regions.

BURST: The burst rating for an explosion is its primary fragmentation radius; the area saturated with a high density of fragments. The secondary burst radius, which has a lower concentration of fragments, is twice this. Roll 1D10 for each character within either the primary or secondary burst radius of an explosion.

Primary Burst Radius			Secondary Burst Radius		
Roll	# Fragments	Damage/PEN	Roll	# Fragments	Damage/PEN
1-3	1D6	2D6/PEN 1	1-2	1D6	1D6/PEN 0
4-6	1	2D6/PEN 1	3-5	1	1D6/PEN 0
7-0	0	-	6-0	0	-

PENETRATION: All grenades and exploding rounds have a listed penetration value expressed as the minimum armor value of penetration. The actual penetration of the round is the listed penetration plus the roll of 2D6. If the target was a vehicle, compare this to the armor value of the target vehicle and consult the vehicle damage tables.

CHEMICAL GRENADES AND ROUNDS

When a chemical round explodes, the cloud released has a width equal to the round's listed burst radius, and its length is four times that distance. This cloud begins at the point of impact and extends downwind. Any characters within the burst radius when the round explodes have a chance of suffering damage from fragmentation. However, as this burst is designed to spread the chemical cloud (not specifically to cause damage), the explosive force is less than with true

explosive rounds. To reflect this, fragmentation damage is restricted to 1D6+2, with a penetration of Nil, and it hits only one random hit location of a character. (See Explosions, below, for an explanation of explosive damage effects).

SMOKE: Smoke is intended to obscure vision; it causes no damage of itself. It can be generated by rounds of HC (hexachloroethane) or WP (white phosphorus, which can also cause burns). During the turn in which the round lands, not enough smoke is emitted to have an effect. For the next six combat turns, however, enough smoke is in the air to obscure visibility. On the seventh turn, the smoke has thinned enough to be of no effect once again.

TEAR GAS: As with smoke, a tear gas round has no effect during the turn in which it bursts. For the next six combat turns, however, it can cause temporary choking and blindness.

When characters first come into contact with tear gas, they must make a panic check. If they fail this check, they must flee the cloud and spend one combat turn (not action) recovering. Also, during each combat turn, that characters are in contact with a tear gas cloud, they must make a Difficult check versus their Constitution to avoid being overcome by the gas.

PCs who fail the Constitution check are temporarily blinded and incapacitated by coughing (disoriented, confused, and only able to move at a crawl). They remain incapacitated for 20 turns (but need make no further checks for panic or incapacitation).

Characters that pass both rolls may function normally.

EXPLOSIVES AND DEMOLITIONS

TYPES OF EXPLOSIVES

For simplicity's sake, these rules deal only with the two most common types of explosives: dynamite and plastic explosive. The units in these rules are the quarter-kilogram stick of dynamite and the one-kilogram block of plastic explosive. All demolition effects are resolved in terms of the number of demolition points (DP) used. A stick of dynamite has one DP; a block of plastic explosive has six. Plastic explosive is flexible and may be molded to any shape desired or broken into smaller charges of one or more demolition points. Several sticks of dynamite and/or blocks of plastic explosive may be joined to form larger charges.

SETTING CHARGES

Each demolition charge takes 15 minutes (30 turns) to emplace. A demolition charge is defined as one or more sticks of dynamite and/or blocks of plastic explosive connected to each other, up to a maximum weight of 10 kilograms. Additional explosives may be attached as extra charges, but they require additional time to emplace. If several larger charges are emplaced, several characters may work on emplacing them simultaneously.

Setting a charge requires a detonator, and may require fuses or electrical wire. A character must have a demolition kit, or must have improvised the required parts. Improvised fuses/detonators will have a mishap on a D10 roll of 8+. Such a mishap is a hangfire (5-10 on a D10) or a complete dud (1-4 on a D10). A hangfire will detonate 3D20 action segments later than expected; a dud will not detonate at all.

Setting a charge is an Average task versus Demolitions skill, with failure indicating that the charge does not go off when triggered, and catastrophic failure indicating that the charge goes off while being set.

RADIO DETONATION OF EXPLOSIVES: Detonating explosive by a radio is risky business, not because it is hard but because it is so easy (some electrical blasting caps can be accidentally detonated by induced current from radio signals). Rigging an explosive to be radio-detonated requires an explosive charge, a standard electrical blasting cap, and a radio detonation receiver (all with the charge), plus a broadcast unit to send the required signal. The task is Difficult versus Demolitions or Electronics given proper equipment, Formidable versus Demolitions or Electronics given improvised equipment. Failure indicates the charge does not detonate. Catastrophic failure means that the charge detonates prematurely (at a time determined by the referee).

Improvising a radio detonation receiver or transmitter from a normal radio is a Difficult Demolitions or Electronics task. The task becomes Formidable without an electronics tool set.

TAMPING: Tamping must be done with dense or heavy material, such as rocks, sandbags, steel plates, etc... Tamping generally adds five minutes to the time required to set the charge, but the referee may increase this time requirement for difficult tamping jobs. Tamping doubles the penetration of a charge.

EFFECTS

Like anything that blows up, explosives have a concussion, burst, and penetration value.

CONCUSSION: It requires progressively larger quantities of explosives to produce a linear increase in concussion. To determine the concussion of a charge, consult the Demolition Table.

DEMOLITION TABLE

DP	Concussion / Penetration
1	3
2	4
3	6
4	7
5	8
7	9
8	10
9	11
11	12
13	13
15	14
18	15
32	20
50	25
72	30
96	35
128	40
162	45
200	50

This lists demolition points and their corresponding concussions. In reading the chart, you will notice that there are several gaps in the listing of demolition points. The DP value listed for a given concussion is the minimum number of DP required to achieve that value. If more precise results are desired, the following formulas can be used to calculate the concussion value of a given demolition charge and the size of the charge needed to achieve a given concussion.

To determine the concussion of a charge, divide the DP value of the charge by 2, extract the square root of the result and multiply by 5.

$$C=5(\sqrt{DP+2})$$

To determine the number of demolition points needed to achieve a given concussion, divide the concussion by 5, square the result, and multiply that result by 2.

$$DP=2 [(C+5) ^2]$$

BURST: Once the concussion of the explosion has been determined, determine the maximum concussion radius of the explosion the same way as for a high explosive round, as described above. (For example, the concussion radius of a blast with Concussion of 30 would be three 8 meter squares). This concussion radius becomes the primary blast radius. The secondary blast radius becomes twice this. Although demolition charges do not create fragmentation, these are usually produced by the object being demolished. If the demolition charge is simply lying on the ground, it does not produce fragments.

PENETRATION: The base penetration of a demolition charge is the same as its concussion value, but is doubled if the explosion is tamped, and halved if it is simply lying on the ground. Unlike other explosions, the listed penetration value of a demolition charge is its actual penetration; players do not add a roll of 2D6 to it.

BREACHING BARRIERS: Breaching a barrier basically means blowing a hole in it. To determine the size of the breach made by a demolition charge, first determine its maximum penetration by dividing the penetration value of the charge by the armor value constant of the material of the barrier. This constant is listed on the Armor Equivalent Table. The result is the number of millimeters penetrated by the charge.

Next the diameter of the breach is determined. The diameter of the breach, in millimeters, is the penetration (also in millimeters) of the charge minus the thickness (in millimeters) of the barrier.

DAMAGE

There are several ways a character can be injured as a result of combat.

GUNSHOT WOUNDS

The extent of gunshot injury is determined by three factors: hit location, weapon damage rating, and target protection.

HIT LOCATION: Whenever a character is hit, roll 1D20 and consult the Human/Animal Hit Location Chart below. This indicates the body part struck and injured by the shot (unless, of course, the shot was targeted at a specific location).

WEAPON DAMAGE: Most weapons do the same damage at all ranges (shotguns firing buckshot being the only exception). The damage value of each weapon is listed on the weapons charts and is the number of D6 rolled. Some weapons have a damage value of -1. In this case, roll the die and subtract 1 from the result.

Some weapons fire exploding rounds. These weapons have a damage rating consisting of two separate listings: concussion and burst. (See Explosions for an explanation of these listings).

PENETRATION (TARGET PROTECTION): If the target is wearing body armor and the bullet strikes a protected body part, the bullet may not be able to penetrate the armor. Each weapon has a penetration rating that reflects the ability to punch through armor. This rating may consist of the simple notation: Nil, indicating that the bullet will be stopped by any armor protection, or it may have up to three different numeric ratings. If so, the first rating applies to short and medium range; the second (if it exists) applies to long range; the third (if it exists) applies to extreme range. If a weapon's penetration drops to Nil at any range band, it remains unable to penetrate armor at longer ranges (which is why no additional entries are made on the charts).

The penetration value of a weapon is the number of damage dice it loses for each armor value that it is required to penetrate. Multiply the target's armor protection by the weapon's penetration value and subtract the result from the weapon's damage value. If the remainder is a positive number, the bullet penetrates and that many dice are rolled for damage. If the remainder is zero or a negative number, the round fails to penetrate.

BLUNT TRAUMA: When a small arms bullet strikes a person, it packs considerable force, and it will cause injury even if it does not penetrate the target's body

armor. This damage is called blunt trauma. A target suffers one actual point of damage for each die worth of damage absorbed by the armor. Bullets which penetrate and cause some normal wound damage will still also cause blunt trauma damage.

COVER: Characters and vehicles may hide behind obstacles as protection from fire. If the hit location rolled is covered by the obstacle, the shot has no effect unless it is able to penetrate the obstacle. The Armor Values of Cover Chart gives the armor values of common types of cover. Obviously, damage dice absorbed by cover do not cause blunt trauma.

QUICK KILL: Any aimed shot which hits the chest or head may constitute a killing shot. Roll a D20; if the roll is less than or equal to the damage value of the shot, the target is instantly killed except on a roll of 17-20. If the hit was scored on an area protected by armor, roll versus the remaining damage value of the round. For automatic fire, roll only once for the aimed burst and use the most damaging hit. (It is suggested this rule only be applied to NPCs; PCs should instead receive enough damage to raise the wound level to serious, or to critical if it is already serious).

BURNS

Characters may suffer burn damage from exploding vehicles, flamethrowers, and other pyrotechnic weapons (WP grenades, etc...) and open flames. The amount of burn damage caused is determined by the temperature of the flame and the length of exposure.

OPEN FLAME: Characters come in contact with open flames when moving through grassfires or burning structures. They cause 1D6 damage to each body part in proximity to the flame on action segments 30, 20, 10, and 0.

BURNING FUEL: Characters come in contact with burning fuel by being inside or near a vehicle when its fuel tanks explode. The primary burst radius of an exploding vehicle is 12 meters. All characters inside the vehicle when it explodes are covered with burning gasoline.

Characters also come into contact with burning fuel when hit by a burst from a flamethrower.

Burning fuel causes 1D6 damage per second in contact with a body part, (applied on even action segments following exposure). Characters hit by burning fuel will instantly begin attempting to extinguish the flames. They will make one such attempt per second as a Difficult Agility test. Each successful

attempt extinguishes the flames on one body part (character's choice of which body part), although characters still suffer burn damage during the action segment they extinguish the flames. Other characters may help extinguish the burning character once they are within 2 meters. They also may make one attempt per second in the same way as described above.

THERMITE AND WHITE PHOSPHORUS: These each cause 2D6 damage per second in contact with a body part and can be extinguished in the same way that burning fuel is. Characters come in contact with thermite or white phosphorus when they are hit by fragments from the explosion of one of these types of shell or grenade. Whether the character is hit and by how many fragments is determined exactly as for normal fragments, as explained in the explosions rules, but if a character is hit by a fragment, burn damage is suffered instead of a normal wound.

PROTECTION: Any sort of helmet will protect the head from an open flame. Blazing fuel will burn through a helmet, or its heat will be conducted through after one turn. The helmet may be removed and discarded in one second without need for an agility check. Flak jackets and Kevlar vests will protect characters from open flames but they will catch fire if contacted by burning fuel.

FALLS

Falling characters take blunt trauma damage upon hitting the ground equal to 2D6 per meter fallen minus a number of D6 equal to the character's Agility. Damage is distributed according to the Human/Animal Hit Location Chart as follows. Roll three locations; the first location takes half the total damage points; the second and third each take one quarter of the total. If the same location is rolled twice, it takes additional damage accordingly. (Unconscious characters do not subtract damage for Agility).

Example: Joe executes two men with a sniper rifle from a 2nd floor rooftop and then jumps down to confront the third. He falls six meters and rolls 6D6 (12D6 minus 6D6 since his Agility is 6) and totals 19. The hit locations rolled (in order) are the chest, left arm, and left leg. So the chest takes 10 damage, the left arm takes 5, and the left leg takes 4.

POISONS

Some creatures, such as vipers, do little actual damage with their claws and/or teeth, but are able to inject poisons into their prey. Damage listings for those creatures are given in the form of a number followed by a small p (for poison) then another number. The first number represents the number of hits actually done by the delivery system (fang, stinger, etc...). If these hits are negated by armor, then no damage is suffered from the poison. However, if any damage does get through the armor, the target takes poison damage in the amount, duration, and frequency indicated by the type of poison (see Poison Table).

Poison damage is always applied to the chest, and it is expressed as a number of dice following the letter **p** in the damage rating. However, the affected character makes a Difficult Constitution check each time he takes damage and reduces poison damage dice by the amount he beats his target number.

See first aid rules for the rules on using an antivenin auto-injector to neutralize poison.

Poison	CON Adj	Onset	DAM	Frequency	Duration	Special
Aconite (C)	-3	1 min	6	30/15	20R	-
Arsenic (I)	+1	10 min	1 + 1C	1/hour	24 hours	-
Atropine (C)	-	30 min	1 + 1C	1/10 min	8 hours	Derived from nightshade.
Bloodroot (I)	-	10 min	2	1/round	10R	-
Copper Sulfate (I)	+1	-	2	30/15	20R	Vomit Inducing
Curare (C)	-2	-	4	30/15	10R	Indigenous to South America.
Cyanide (I)	-3	-	8	30/20/10	20R	-
Gelsemium (I)	-2	30 min	1C	1/30 min	8 hours	Paralysis
Sodium Fluoroacetate, Compound 1080 (I)	-2	1 hour	1 + 1C	1/30 min	8 hours	Odorless, Tasteless
Strophanthus (C)	-	-	1C	1/round	10 min	Paralysis
Strychnine (I)	-1	1 min	4	1/min	10 min	Nausea

POISON TYPE: Name of poison followed by I for Ingestive or C for Contact. Ingestive poisons must be ingested through the mouth. Contact poisons may either be ingested or must pierce the targets skin (as on an edged weapon or arrow).

CONSTITUTION ADJUSTMENT: This is the modifier to the poisoned character's Constitution target number; a negative number indicates a penalty.

ONSET: Amount of time before poison effects are realized.

DAM: The number of damage dice inflicted by the poison. If the number is followed by C, then it does Constitution damage (which may also be reduced by Constitution checks). When the poisoned character's Constitution drops to zero he becomes unconscious. He dies when it goes negative.

FREQUENCY: How often poison damage is inflicted. Numbers (possibly separated by slashes) indicate the action segments that damage is taken.

DURATION: How long the poison attacks the infected character before dissipating.

SPECIAL: Side effects and other notes will be listed here.

- **Nausea:** During all actions after the poisoned character has taken any poison damage, he must succeed at a Difficult Constitution check or spend his action vomiting. While nauseous, a character can only move at a crawl.
- **Paralysis:** When the poisoned character's Constitution drops to half of normal, he becomes paralyzed.
- **Vomit Inducing:** Some poisons are often not toxic because vomiting is automatically triggered when ingested. If the poisoned character succeeds at his first Constitution check he immediately vomits the poison and suffers no further effect from the poison.

RADIATION

Radiation poisoning is handled differently than normal poisoning. Radiation has an initial exposure damage which occurs once immediately after contact with the radiation. Prolonged exposure damage occurs at the listed intervals so long as the character is still regularly exposed to the radiation. Regular exposure constitutes exposure for at least half of the interval listed. Characters who have ingested radioactive substances will suffer prolonged exposure for 24 hours after ingestion.

Once the character is no longer exposed, he suffers post exposure effects if any. Duration of post exposure effects is permanent unless otherwise noted.

Like poison, the amount of damage dice radiation does is reduced if a Difficult Constitution check succeeds (as modified by the radiation type). Reduce the damage dice by the amount the Constitution check target number is exceeded.

Radiation suits protect the wearer from any radiation dealing the listed amount of damage dice (during initial exposure) or less. Any puncture in the radiation suit renders it useless.

Radiation	Halflife	CON Adj	Exposure Type	Initial Exposure Damage	Prolonged Exposure Damage	Post Exposure Damage
Radon	-	+5	Inhale	-	1C/year	-
Americium-241	432.7 years	-	Contact	1	1/minute	-
Americium-241	432.7 years	-	Ingest, Inhale	-	1C/minute	1C/month
Californium-252	2.65 years	-1	Ingest, Inhale	1C	1C/day	-
Cobalt-60	5.27 years	-5	Contact	3	3/(30/15)	-
Cobalt-60	5.27 years	-	Ingest, Inhale	-	1C/Hour	1C/month
Indium-192	74 days	+1	Any	2	1C/Hour	1C/month
Plutonium-238	87.7 years	-2	Any	4	4/min	2C/month
Plutonium-239	24,100 years	-5	Any	8	8/min	3C/month

WOUNDS AND HEALING

KNOCKDOWN

Characters who suffer more points of damage from an attack than their Constitution must make a Difficult Agility check to avoid getting knocked down. Characters that are knocked down immediately fall prone (and are thus limited in options until they spend an action to stand).

STUN

Characters who suffer more points of damage from a head wound than their Constitution must make a Difficult Constitution check or be stunned for an amount of rounds equal to the amount they missed the target number by. Remember that a serious wound to the head always results in unconsciousness. *For example, if Joe has a Constitution of 6 and receives a head wound for 11, he must pass a Difficult Constitution check. He needs a 6, but rolls an 8. Joe is stunned for 2 rounds.*

WOUND SEVERITY

There are four levels of wound severity: scratch, slight, serious, and critical. Each is summarized in the Wounds Table.

WOUNDS TABLE

Wound Level	Damage Amount	Effects	Healing Time
Scratch	0 through ½ Hit Capacity	-	24 hours to unwounded.
Slight	More than ½ up to Hit Capacity	-1 to Initiative.	3 days to unwounded.
Serious	More than Hit Capacity, less than twice Hit Capacity	Total of -3 to Initiative and reduce Strength by half. Limb wounds cause loss of use of that limb until the injury is fully healed. Head wound causes unconsciousness. Unconscious characters make a Formidable Constitution check at the beginning of each round to regain consciousness.	4 days to slight.
Critical	More than twice Hit Capacity	Total of -5 to Initiative and reduce Strength by half. Head wound is death. Other wounds result in loss of consciousness and require medical attention within 10 minutes to avoid death by blood loss. Characters make Formidable Constitution checks at the beginning of every other round to regain consciousness.	1 week to serious.

FIRST AID

In order for first aid to be effective, it must be applied within six turns of the time the wound was received. Effective first aid will reduce a critical wound to a serious one, or reduce the healing time of a serious wound by two days. First aid has no effect on scratch or slight wounds except to prevent infection.

First aid is a Difficult task versus the Medical skill, assuming a doctor's medical kit is on hand. If it is not, the task becomes Formidable. Conscious characters can attempt first aid on themselves.

To administer first aid to damage caused by poison requires an antivenin auto-injector or a doctor's medical kit (which contains them). These items are required and do not confer the normal skill bonus to the task. Note that a successful first aid roll has the normal effect on wounds incurred and halts any further damage from the poison.

STABILIZING CRITICAL WOUNDS

Critical wounds must be stabilized within 10 minutes or the injured character dies. Stabilizing a critical wound is a Difficult task versus the Medical skill but Blood Plasma, strong sedatives, or a medical kit of some sort each add +1 to the skill level and are cumulative. In a hospital setting, whole blood may be used instead of plasma for a +2 bonus.

BASIC HEALING RATE

A character without medical attention may heal from a slight wound level to unwounded in three days. To go from serious to slight takes four days, and from critical to serious takes one week. Note that healing of various body parts goes on simultaneously.

Scratch wounds require 24 hours to heal to an unwounded state. If a scratch wound is taken to a body part, and then further wounds to that body part during the day push that body part's wound level to slight, the rates and rules for healing from a slight wound are used. Slight wounds do not heal to a scratched state, they heal to unwounded without passing through the scratch wound level status.

MEDICAL CARE

Medical care and supervision will increase an injured character's basic healing rate. If a character is under successful medical care while healing, two days are trimmed from each stage of healing.

SURGERY

Surgery can reduce a critical wound drastically. Like any other medical care, it will usually be performed at a hospital, where all necessary equipment is available and quality post-operative care is available, so it will not always be possible.

Surgery can only be performed by someone with at least Medical 3 and it requires the use of surgical instruments. It is a Formidable task versus Medical to reduce a critical wound to serious but if the task roll is successful, the reduction occurs immediately after surgery. The use of blood plasma and local anesthetic each provide a +1 to the surgeon's Medical skill and are cumulative. If whole blood is used instead of plasma, it provides a +2 bonus. If total anesthetic is used instead of local anesthetic, it provides a +3 bonus.

Only one surgery attempt may be made per critical wound. Failures means the wound remains critical. Catastrophic failure can result in extra healing time, loss of limb, or death depending on type of wound and the referee's judgment of the situation as a whole.

SKILL USE (OPTIONS)

DETECTING CONCEALED WEAPONS:

This comes up more often than you'd think.

A character uses Observation to notice a concealed weapon as indicated below:

Holster Type	Visual Observation Difficulty Level	Frisk Difficulty Level	Max Bulk
Shoulder	Average	Automatic	2
Ankle	Formidable	Average	1
Waist	Difficult	Easy	2
Crotch	Difficult	Easy	0
Jacket Pocket	Average	Automatic	1
Wrist	Formidable	Average	0
Beneath Trench coat (Unholstered)	Easy	Automatic	3