

PHOENIX COMMAND™



Advanced Rules
For Small Arms Combat



LEADING EDGE
GAMES

Introduction

The **Advanced Phoenix Command Supplement** presents additional rules and data to be used with the **Phoenix Command Combat System (PCCS)**. It assumes the player is comfortable with **PCCS**; new players should practice with the basic system a number of times before using this supplement.

The rules that follow provide the utmost in realism, and few compromises have been made. To provide a cohesive system, the four chapters are presented as a continuation of **PCCS**; this is to prevent any confusion over section and table references. Additionally, each section is independent, and any or all of them may be used at the players' discretion.

Chapter 6 contains rules easily incorporated into the basic game, Chapter 7 is designed to help the referee run a game, Chapter 8 features role-playing rules, and Chapter 9 contains guidelines for advanced simulation rules.

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SUPPLEMENTAL RULES

The rules that follow, as with the other Chapters, are found in independent sections. Any or all of them may be included in the basic game. They represent details not put into the basic game due to length restrictions, and players are free to use only those they wish. Like the Optional Rules of Chapter 5, these rules often apply only in special situations.

6.1

BLUNT TRAUMA

When a bullet's penetration is stopped by armor, it is still possible that serious and potentially fatal bruising may result. These bruises are referred to as **Blunt Trauma**.

This Blunt Trauma is found on the **Blunt Trauma Damage Table (9A)** by cross-indexing the target's armor **Blunt Protection Factor (BPF)** and **Hit Location** with the weapon's **Armor Penetration**. The weapon's Armor Penetration is the weapon PEN which strikes the armor after accounting for intervening cover or obstacles. For those playing High-Tech games, laser fire causes no Blunt Trauma.

Example:

A target wearing body armor with PF = 9 and BPF = 3 is hit in the Lung by a bullet whose PEN = 4. Since there was no intervening cover, the Armor Penetration is equal to the weapon's PEN and is 4. Using Table 9A with an APEN of 4, Body Hit Location, and BPF of 3, the damage inflicted is 4 PD.

6.2

BALLISTIC ACCURACY

The shaded portions of the **Weapon Data Tables** model ballistic performance beyond a weapon's **Effective Range**. At these ranges, weapon accuracy may no longer be governed by the shooter's aim, but by the weapon's and/or ammunition's own inherent inaccuracy. The **Effective Accuracy Level (EAL)** used to determine the Odds of Hitting must be modified to account for this deviation. It should be noted that our definition of Effective Range is based on effectiveness against a man-sized target and does not always correspond to the military's definition of Effective Range.

To determine the EAL, sum all applicable ALMs except the Target Size Modifier. This is the "**ALM Sum**", which measures the accuracy of the shooter's aim. Compare the ALM Sum to the weapon's **Ballistic Accuracy (BA)** found on the **Weapon Data Tables** beneath the PEN and DC values. The Ballistic Accuracy measures the weapon's and ammunition's accuracy potential. If the BA is greater than the ALM Sum, the weapon is more accurate than the shooter. If the BA is less than the ALM Sum, the shooter's aim is better than the weapon's accuracy potential. To find the **Effective Accuracy Level (EAL)**, add the lesser of the BA or ALM Sum to the Target Size Modifier. This EAL determines the shot's Odds of Hitting in the normal manner.

Example:

A marksman is prone and braced, and takes a long range shot with an M16A1 at a standing, exposed target. The EAL is:

SAL	ALM = 14	SAL for 8th Gun Combat Skill Level
Aim Time	ALM = 0	Aim Time 11 AC, from Status Sheet
Range	ALM = -10	Range 400 hexes, Table 4A
Firing Stance	ALM = +7	Prone and Braced, Table 4B
	ALM = +1	Using Sling for Support, Table 4B
ALM Sum	12	BA = 11
Target Size	ALM = 7	Standing Exposed, Table 4E
	EAL = 18	Lesser of ALM Sum or BA + Target Size ALM

6.3**THREE ROUND BURST**

Many modern weapons have **Three Round Burst** capability. In a Three Round Burst, the weapon fires three shots automatically with each pull of the trigger. First shot accuracy is generally not affected, but overall hit probability is improved by the firing of the second and third shots.

Weapons with Three Round Burst capability are marked by a **double asterisk (**)** in their Rate of Fire entry. Weapons with a ** followed by a number are capable of both Three Round Burst and fully automatic fire, the number being their fully automatic Rate of Fire in rounds per half-second burst.

The performance of a Three Round Burst depends on the weapon and target range. At point blank and extreme range, a Three Round Burst's accuracy is little better than that of a single shot. At optimum range (3RB value = 0), its accuracy is markedly better. This performance is measured by the Three Round Burst (3RB) value found in the **Weapon Data Tables** just below the PEN and DC values. The 3RB measures the burst's width of scatter. The greater the 3RB, the greater this scatter.

To find the burst's **Odds of Hitting**, cross-index the 3RB with the shot's Effective Accuracy Level (EAL) on the **Three Round Burst Hit Chance Table (9B)**. This results in one to three numbers. Make a single 00-99 roll. If the roll is greater than the first (top) number, the burst misses. If less than or equal to the first number is rolled, one round hits. If less than or equal to the second number is rolled, two rounds hit. If less than or equal to the third number is rolled, all three rounds hit.

Example:

Donovan, with his new M16 A2, fires a three round burst at a target 10 hexes away. His EAL = 20, and his rifle has a 3RB = -5 at this range. Entering Table 9B, Donovan's Three Round Burst Hit Chance = 78 and 27. He rolls a 23 and hits with two rounds.

6.4**EFFECTIVE MINIMUM ARC**

The **Minimum Arc (MA)** values on the **Weapon Data Tables** assume that all rifles and sub-machineguns are fired from the hip, and that machine guns are fired from a prone stance using their appropriate mount (bipod or tripod). This section adjusts the Minimum Arc for other firing stances and the Strength of the shooter.

To make these adjustments, simply enter the **Effective Minimum Arc Table (9C)** with the weapon's standard MA and cross-index with the shooter's stance or situation. This gives an adjusted MA value. If more than one line of **Table 9C** applies, re-enter **Table 9C** with the adjusted value and cross-index it with the next appropriate entry (in the order listed).

Example:

A shooter fires a rifle from a standing firing stance. The shooter's Strength = 14 and the standard MA from the Weapon Data Tables = .4. His effective MA adjusted for his standing firing stance is found on Table 9C cross-indexing an MA = .4 and Standing Firing Stance (Rifle) entry, and is a 1. The adjustment for his Strength is made by cross-indexing this MA = 1 and his Strength = 14, and is a .9. The shooter's Effective MA for the burst = .9.

6.5

BLIND FIRE

In the basic system it is not possible to fire at a hidden target. There are times, however, when a person may guess at a target's position and want to fire blind. This may occur when the target is obscured by smoke or hiding behind NonBlocking Cover. To fire blind, the shooter must guess and then hit the correct hex in which the target is located. If he guesses the correct hex, the **Odds of Hitting** this hex follow the standard rules with a Target Size or Auto Elev = 15. Automatic fire must be at the correct Elevation and may be tracked across a number of hexes to increase the chance of hitting the correct target hex.

If the target hex is hit, the chance of hitting the target is found on the **Blind Fire Hit Chance Table (10C)** opposite the Target Size ALM. For each shot or round of automatic fire into the target hex, the shooter rolls a 00-99 number. Each roll less than or equal to the **Blind Fire Hit Chance** is a hit.

These rules also apply to a shooter sticking his weapon around a corner and firing blind. In this case, the target hex is not visible and an additional Visibility ALM of -14 (Shooter not Looking) is used when determining the Effective Accuracy Level (EAL) for hitting the target hex.

Example:

Donovan pursues an opponent around the corner of an alley. Rounding the corner, he sees an empty alley with two trash containers. Knowing the opponent did not have time to run all the way down the alley, he guesses the opponent is hiding behind the second trash container and fires five rounds through it. It turns out Donovan is right, and the opponent is kneeling behind the second trash container.

Donovan paused to aim, and at such a short range his chance of hitting the target hex is automatic; all five rounds go into the target hex. His Blind Fire Hit Chance = 09 (Table 10C for Target Size 6). Donovan rolls a 56, 78, 04, 42, and 34, so he hits the opponent with one round of the five.

6.6

SMOKE

Smoke devices have many practical combat applications and are rated by their **Smoke Value (Smk)** and **Duration (Dur)**. The Smk gives the diameter (in hexes) of the circular smoke cloud created in outdoor conditions if there is no wind. This smoke blocks vision, and opponents firing through it must use the **Blind Fire Rules** of Section 6.5.

When a Smoke device is used in a building, the smoke creates a cloud of Smk diameter the first phase and expands into connected areas, filling Smk hexes each subsequent phase. The Duration (Dur) gives the time (in phases) the smoke is generated. After Dur phases, the smoke burns-out and dissipates.

Example:

A smoke grenade of Smk 3 is thrown into a 5 x 5 hex room. In the first phase, a 3 hex diameter cloud is created. This covers 7 hexes of the room in smoke. In the second phase, another Smk (here 3) hexes of the room are covered in smoke for a total of 10 hexes, and in the third phase another 3 hexes and so on, until the Dur is reached or the room and any connected spaces are full.

Smoke After Burn-out

To find the smoke's effectiveness after burn-out, enter **Table 10A** with the Smk value and time elapsed since burn-out. The number on **Table 10A** is a **Visibility ALM** to all fire crossing the smoke (a "B" indicates the screen blocks vision).

Example: A smoke grenade of Smk = 1 has just burned out. The first 5 phases after burn-out, it still blocks vision as shown on Table 10A. In phases 6 through 10, the Visibility ALM is -9, and in phases 11 through 15 it is -5, etc.

Wind Effects

When wind is present, smoke will not simply form a cloud; it will pour from its source and move downwind, making a wall or screen. The effectiveness of the screen depends on the Smk value and the wind speed and is given on **Table 10A**. Enter **Table 10A**, cross-indexing the Smk and Wind Speed in hexes per phase (2 X HPP = mph) to find the **Visibility ALM** to all fire crossing the screen. A "B" indicates the screen blocks vision.

The smoke screen is generated at the source and moves downwind at the wind speed. At the end of Dur phases, it has completed the wall. After Dur phases, it continues to move downwind, but is no longer generated. The Visibility ALM of the screen varies with distance from the source. The length from 0 to Wind Speed (W) hexes has a Visibility ALM found on Table 10A. The section from W to 2 X W hexes has a value found one line down, and the section from 2 X W to 3 X W hexes has a value found two lines down, etc.

Example: With a 3HPP wind blowing, a smoke grenade of Smk = 3 will generate a screen which grows in length 3 hexes each phase. This screen starts at the grenade and moves downwind. The effectiveness of the screen is found on Table 10A. The section 0 to 3 hexes from the grenade Blocks vision. The section 4 to 6 hexes away has a Visibility ALM = -12, and the section 7 to 9 hexes away has a Visibility ALM = -10 as shown in Figure 1.

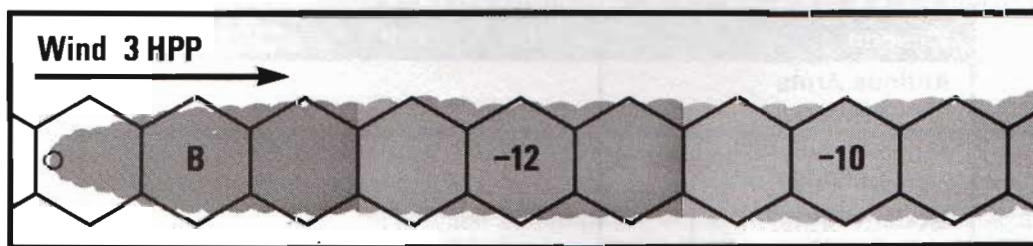


Figure 1

Smoke is usually delivered by indirect fire weapons or rifle grenades which are covered in our **Artillery and Indirect Fire System** and our **Special Weapons Supplement**. Data for common hand thrown smoke grenades (burning type) is given below.

Burning Type Hand Thrown Grenade

Length	5.7	Arm Time	4	Range	12	Smk	3
Weight	1.5	Fuse Length	1			Dur	60

**"Pull trigger.
Repeat if necessary."**

Instruction manual supplied with all
weapons from Neemis Enterprises

WEAPON RELIABILITY AND DAMAGE

"Well, perhaps
you shouldn't have
believed him when
he told you the
gun was empty.
He's the ENEMY."

Lt. Derek

Weapon reliability is measured by the weapon's **Reliability Class (RC)** for single shot fire, and **Burst Reliability Class (BRC)** for fully automatic fire and three round bursts. The RC and BRC, as applicable, are used in the Odds of Hitting roll. Each time a shot or burst Odds of Hitting roll results in both numbers on the ten-sided dice being identical (such as 11 or 33) and from 1 to the RC (or BRC), there is a 10% chance the weapon malfunctions.

Example:

If the RC = 3, the weapon malfunctions on an Odds of Hitting roll of 11, 22, or 33 followed by a 1 on an additional ten-sided roll.

More unreliable weapons have an * or ** next to their RC or BRC values. For weapons marked with an *, a match of numbers on the Odds of Hitting roll determines if the weapon malfunctions. For weapons marked with a **, ignore the high die and use the number rolled on the low die to determine if the weapon malfunctions. For fully automatic fire, the round within the burst on which the weapon malfunctions can be determined randomly.

Example:

If the BRC = *2, the weapon malfunctions on a Odds of Hitting roll of 11 or 22.

If the BRC = **2, the weapon malfunctions when the ones digit of the Odds of Hitting roll is a 1 or 2.

If the weapon malfunctions, the character can attempt to fix it. The **Clear Jam Time (CJT)** and **% Clear Jam (%CJ)** given below measure how long this might take. Weapons with no CJT entry cannot be repaired in the field and must be brought to an armory (REP level of damage for those using our Role-Playing Systems). After CJT Action Counts spent attempting to fix the weapon, the character rolls a 00-99 number. If less than or equal to the %CJ is rolled, the weapon has been fixed and is ready for action. If the character cannot fix the weapon after three attempts, the malfunction is serious and cannot be fixed in the field. Again, REP damage has been sustained.

Weapon RC, BRC, CJT, and %CJ data is found in the following table for typical weapons. These values may be used as a guideline for adjusting specific weapons known for either superior or inferior performance.

Weapon	RC	BRC	CJT	%CJ
Antique Arms				
Flintlocks	**1	-	12	10
Cap and Ball	5	-	16	20
Cartridge	3	-	8	50
Modern Arms				
Revolvers	1	-	4	10
Automatic Pistols	3	-	4	50
Bolt Action Rifles	1	-	4	60
Lever Action Rifles	1	-	3	40
Sub-Machineguns	3	*2	5	50
Automatic Rifles	2	*1	6	50
Machine Guns	3	*2	5	45
Pump Action Shotgun	2	-	2	40
High-Tech				
Caseless	1	6	3	90
Gauss Guns	1	1	10	5
Lasers	1	1	-	-

Weapon Damage

When a **Weapon Critical Hit Location** is rolled for the Hit Location, the character's weapon has been hit. This indicates the weapon has been damaged and cannot be used until repaired. To determine the level of damage sustained, enter the following **Weapon Damage Table** with a 00-99 roll. The various damage levels are used in the repair rules of our Role-Playing Systems. For those not concerned with such matters, a weapon critical hit simply takes the weapon out of action.

For those playing our High-Tech Systems, a weapon may have armor as indicated by its Armor PF value. If this is the case, the shot must penetrate the armor for the weapon to be damaged.

Weapon Damage Table			
Damage Level	Rifle / Pistol	Laser or Gauss	Explosive
Minor (MIN)	00-15	00-10	00-20
Major (MAJ)	16-70	11-20	21-35
Replace (REP)	71-99	21-99	36-99

6.8

Explosive Ammunition may be handled by an additional Physical Damage (PD) bonus. If a target is hit by an explosive projectile with EPEN greater than his armor PF, an additional damage bonus is added to the normal penetrating damage of **Table 6**. To find this damage, enter **Table 6** and find the PD inflicted by an EPEN = 2 hit (at full DC). Multiply this PD (EPEN = 2) by 4 to obtain the damage bonus. (If the EPEN is less than 2, the total PD inflicted is 5 times the normal PD of Table 6).

If the EPEN is less than or equal to the armor PF, only normal penetrating damage is done (at DC = 1).

Example:

A target is hit in the Lung-Rib hit location by an explosive round with PEN = 28 and DC = 8. The target was in light flexible armor of PF = 4. The PD inflicted is 800 (normal PD at DC = 8) plus explosive bonus of 4×700 (EPEN = 2 at DC = 8) = $800 + 2800 = 3600$ PD.

EXPLOSIVE AMMUNITION

6.9

When a weapon is fired, the recoil must be handled. In the basic game, this recoil is measured by the weapon's **Sustained Automatic Burst (SAB)** and **Knock Down (KD)** value. For fully automatic weapon fire, each subsequent burst's Odds of Hitting are adjusted by the SAB. In a similar fashion, the KD may be used to determine recoil recovery from single shots. This **Recoil Recovery Time** is the number of Action Counts which must be spent controlling the weapon's recoil before any other weapon action can be taken. In general a combat weapon's recoil will not be so intense as to seriously penalize a second shot, but powerful weapons such as magnum handguns and shotguns suffer from this drawback. To accurately model weapon recoil and recovery time, cross-index the weapon's KD with the shooter's Gun Combat Skill Level on the following **Recoil Recovery Time Table** to determine the Recoil Recovery Time in Action Counts. These Action Counts must be expended before a second shot's aim time can begin or the weapon can be cocked for a second shot.

RECOIL RECOVERY

Recoil Recovery Table												
KD	Skill Level											
	0	1	2	3	4	5	6	7-8	9-10	11-12	13+	
1												
2	1											
3	2	1	1									
4	2	1	1	1								
5	2	1	1	1	1	1						
7	3	2	1	1	1	1	1	1				
10	3	3	2	1	1	1	1	1	1			
14+	3	3	3	2	1	1	1	1	1	1		

Example:

Axly fires a short barreled 44 Magnum handgun at an opponent. The weapon's KD value is 7 and Axly's Gun Combat Skill Level is 4. This gives Axly a Recoil Recovery Time of 1 AC. So after his first shot, Axly spends 1 AC recovering from the recoil and begins to aim his second shot.

6.10

OPTICAL SCOPES AND ADVANCED AIMING SYSTEMS

The following rules add optical scopes and **Advanced Aiming Systems (AAS)** to weapons from the **Weapon Data Tables**. The weapons pictured in the Weapon Data Tables with scopes already have scope modifiers included in their Aim Time Mods. These rules do not apply to those weapons (in particular asterisked Starforce weapons from the High-Tech Weapon Data Supplement).

Modern optical scopes provide excellent target resolution and improve accuracy. The scope's Field of View and magnification are selected for a particular application. A sniping scope often has a tight angle and high amplification, while a pistol scope is a wide angle, low-power unit.

The following table provides modifiers to a weapon's Aim Time Mods and is for a scope or AAS used beyond its minimum range with good lighting. In poor light or inside its minimum range, a scope will not focus properly, resulting in poor visibility (see Table 4C).

Advanced Aiming Systems (AAS) are high-tech multiwave light amplifying systems. They include a radar range finder and automatically adjust magnification and field of view to target range and lighting. This eliminates many of the penalties associated with conventional optical scopes.

To add an optical scope or AAS to a weapon, simply add the following scope or AAS modifiers to the weapon's Aim Time Mods.

	Optical Scope		Advanced Aiming System
	Pistol	Rifle	
Weight	1.5	3.2	1.5
Minimum Range	1	8	1
Aim Time AC			
1	+1	+1	+1
2	+1	+1	+2
3	+2	+2	+2
4	+2	+2	+3
5-6	+2	+2	+4
7-8	+2	+3	+5
9-10	+2	+3	+6
11-12	+2	+3	+7

OFF HAND FIRE

The basic rules assume a person is using a pistol or rifle in his primary hand; that is, if he is right handed, the pistol or rifle is carried in the right hand. There may be times when the person may wish to use a weapon in his Off Hand. This might occur because of an injury, or if he wishes to fire two pistols at the same time.

When firing a weapon in the Off Hand, the person's accuracy and Aim Time are modified. The modifier is based upon his Off Hand Qualified Skill Level. The Off Hand Qualified Skill measures his ability to use his weapon in his Off Hand and like the Gun Combat Skill Level varies from 0 to 20. Qualified Skills are discussed in Section 8.1.

For Off Hand fire, cross index the shooter's Off Hand Qualified Skill Level on the following **Off Hand Shot Table** to find the resulting **Accuracy ALM** and **Aim Time Penalty**. The Accuracy ALM applies to all shots taken with the Off Hand. The Aim Time penalty likewise applies to any shot taken with the Off Hand. When entering the **Off Hand Shot Table**, the character may increase his Off Hand Qualified Skill by +1 if his Agility is 16, increase it by +2 if AGI is 17, and increase it by +3 if his AGI is greater than or equal to 18. Note that an additional ALM from **Table 4B** may apply for one handed fire.

Off Hand Shot Table					
Off-Hand QSL	Accuracy ALM	Aim Time Penalty	Off-Hand QSL	Accuracy ALM	Aim Time Penalty
0	-4	-2	3	-1	-1
1	-3	-1	4	-1	-1
2	-2	-1	5+	0	0

Example:

Axly is right handed and has had his right arm disabled. He draws a pistol in his left hand, aims for 3AC and fires. If Axly had an Off Hand Qualified Skill Level of 2, his shot would have an additional ALM penalty of -2 and a 1AC aim time penalty. Axly's shot would have an effective Aim Time of $3 - 1 = 2$ AC, and the -2 ALM modifier.

"Sarge, I've gotten both of my arms disabled again. What are the rules for Primary and Off-Foot Firing?"

Private Lefty

7

REFEREE AIDS

This Chapter contains rules which help the referee set up and run the game. It provides rules for long range spotting, cover generation, and large scale battlefields. Combined, they allow the referee to simulate small unit tactics at the squad level where maneuver, terrain, and deployment play just as critical a role as individual weapon proficiency. Using these rules, players are challenged to maneuver their forces in search of the enemy, to deploy to tactical advantage once contact has been made, and finally to engage and defeat their opponents.

7.1

COVER GENERATION

This section generates **Cover** for outdoor terrain such as trees, rocks, and local ground depressions. Cover is generated per 6 by 6 hex area (12 x 12 yards). Special large scale features such as ridge lines, dense woods, or bodies of water should be placed by the referee prior to cover generation.

To generate cover, enter the **Cover Generation Table (10B)** cross-indexing a 0-9 roll with the battlefield's terrain type. This will give the cover's Type, Height, Number, and Protection Factor (PF) within a 6 x 6 hex area. When entering **Table 10B**, appropriate modifiers from the bottom of the table may be added to the ten sided roll.

Type

Type gives the number of hexsides blocked by the cover.

Cover Height

The Cover Height determines what size object can be hidden behind it. This height should be recorded on the playing surface for future reference. If multiple color pens are available, a color code should be used to record the height of each terrain feature, to simplify reference for all the players.

Cover Height Effects		
Height	Concealed When	Effect on Movement
S	Standing	Cannot be crossed
K	Kneeling	As a 3 foot wall
P	Prone	None

Number

This entry gives the number of covers within the 6 x 6 area. Placement is determined randomly, or by the referee.

Protection Factor (PF)

The PF gives the cover's Protection Factor. The PF should be recorded next to the cover outline for future reference.

When determining line of sight, use a straightedge from hex center to hex center. If the straightedge crosses a cover outline of blocking height, the line of sight is obstructed.

SPOTTING

One of the most important factors in combat is spotting the enemy. The following rules determine how long this takes and are used in conjunction with the basic Spotting Rules of Section 5.2. The basic rules are for close combat, while the rules in this Section are designed for long distance spotting prior to engagement. They are used to determine who spots whom in conjunction with the Large Scale Battlefield rules of Section 7.3. This very often determines the type and range of hostile encounters. Once combat breaks out, the close contact spotting rules of Section 5.2 are normally used for speed and efficiency.

To determine if a target is seen, the spotter first designates the area that he will scan. He does this by choosing an **Angle** or a **Width of Scan**. An angle specifies a conical area with the spotter at the apex, while a width specifies a corridor whose length stretches indefinitely away from the spotter.

The referee checks to see if there are any exposed targets in this area. If there are, he determines their range and goes to the Range section of the **Spotting Modifier Table (11A)**. He then adds all applicable modifiers from other sections of **Table 11A** to determine the **Spotting Level Modifier (SLM)**.

To determine the odds of spotting, cross-index the SLM with the area scanned on the **Spotting Chance Table (11B)**. This number is the chance of spotting each target per phase.

Example:

A guard of Skill Level 5 (Traps / Spotting or Combat) is scanning a 60 degree area. The terrain is open with light brush and grass. An enemy in fatigues appears over a gentle rise crawling on his hands and knees. The range is 30 hexes. The Spotting Chance is found as follows.

Target Range 30 hexes	9
Flat Terrain, little Cover	-1
Spotter's Skill Level (SL = 5)	-2
Target's Skill Level (SL = 1)	0
Target Size, on Hands & Knees	+1
Target Speed, 1/3 HPP	-1

$$\text{SLM} = 6$$

From Table 11B for a 60 degree scan and an SLM of 6, the Spotting Chance is 58. The guard rolls a 00-99 Spotting Roll each phase. If less than or equal to a 58 is rolled, he spots the enemy.

A **Spotting Chance** preceded by an asterisk (*) indicates spotting is automatic. The number following the * gives the maximum time, in Impulses, needed to spot the target. If the number is a *4, the spotter would roll a 1 to 4 random number to determine this time.

Group Spotting Rules

The preceding rules are best suited for small actions where one man is trying to spot another. When groups of people are involved, the chance of one group spotting another is found on the **Group Spotting Table (11C)**.

To use **Table 11C**, first determine the **Spotting Chance** for an average person in the group using **Table 11B**. Now, multiply the number of people looking in the direction of the target(s) times the number of visible targets, and call this the **Group Spotting Number**. Cross-index the average Spotting Chance from **Table 11B** and the Group Spotting Number on **Table 11C** to find the **Group's Spotting Chance** per Phase. One 00-99 roll is then made for the entire group. If less than or equal to the Group's Spotting Chance is

"Would you like to donate the blood you have left? It doesn't seem to be doing you any good."

Dr. Buen-Scheuk

rolled, someone in the group spotted one of the targets. This single roll avoids the confusion of each member in a group having to make his own spotting roll against each target.

Example: A five man patrol crosses an area devoid of cover. They are visible for three phases before regaining cover. Two guards, whose front the patrol is skirting, would thus have a chance of spotting the patrol as they break cover. The guards' Group Spotting Number is $2 \times 5 = 10$. If the guards' average Spotting Chance were a 20, their Group Spotting Chance each phase would be a 90 (Table 11C). If the guards roll less than or equal to a 90, they spot the patrol. The guards would roll three times, once for each phase the patrol was exposed.

7.3

LARGE SCALE BATTLEFIELDS

Most actions will be played on a 2 yard per hex scale with the action centered around a particular installation or target. If the action is at greater range, draw the battlefield on a piece of hex paper at a scale of twenty yards per hex. Large scale terrain features such as ridge lines, blocking cover, and depressions should be included. Copies of this map should be made for each team.

Each Team plots their movement for the next few game minutes on their map. They should draw their itinerary and/or positions and Fields of View as if unaware of any enemy presence. The referee then collects the maps and plots each Team's movement, turn by turn, on his master map. Using the Spotting Rules of Section 7.2 (or Simple Line of Sight), the referee determines when and who spots whom.

If only one Team spots the other, the referee gives the spotting Team back their map for them to plot new movement. The map would be collected again and the process continued until the Teams engage or pass by undetected.

Once combat is engaged, the firefight can be played at the twenty yard per hex scale from the master map. Team positions on the map are simply penciled in, and going to the playing surface would be optional. If the combatants close range, that portion of the map can be moved to the playing surface with a scale of two yards per hex. Fire from players at ranges not on the playing surface would be handled using the master map.

8

ROLE-PLAYING RULES

This chapter contains rules which expand on the individual attributes of characters in the game. These attributes include personality traits, such as Leadership, as well as specialized Skills and Training. These rules flesh out non-combat activities on the battlefield, and can also be used in role-playing environments.

8.1

SKILLS

A character's Skill Level is used throughout **Phoenix Command** and measures his expertise in a given field of endeavor. In general, **Phoenix Command** is concerned with the Combat Skill, and that is the only Skill Level which has been discussed in detail. As more aspects of equipment and tactics are examined there is a need to look at a character's skills in greater detail.

Before the details of skill training and the use of skills can be discussed, it is necessary to explain how a character's **Skill Level** is measured. The Skill Level is a number from 0 to 20, with 0 representing no skill whatsoever and 20 representing the highest degree of skill humanly possible. Guidelines for the intermediary Skill Levels are shown on the following table.

Skill Level	Rating
15	World Class
12	Master
10	Expert in Field
8	Experienced Professional
6	Journeyman
4	Competent
1	Novice

"Better Weapons for a Better Tomorrow"

Neemis Enterprises Corporate motto

The Skill Level naturally has a substantial effect on the character's chance of success in performing any endeavor. This will become apparent in the following sections.

A character's Skill Level is not a permanent thing, however. As the character uses a skill or is trained, he can attain higher levels. His progress from level to level is kept track of in terms of **Learning Points**. Learning Points in a given skill can be acquired through training (Section 8.3) or through field experience (Section 8.4).

The following **Learning Point Total Table** shows the minimum number of Learning Points necessary for each level. When the accumulated Learning Points in a skill reach the Learning Point Total for the next higher level, the character has attained that Skill Level. As shown on the table, it becomes increasingly difficult to advance in levels as a character

becomes more skilled. The **Learning Point Total** is kept as a running total; thus, it takes 2 points to become 1st level, 2 more for 2nd (a total of 4), 4 more for 3rd (totalling 8), and so forth.

Learning Point Total Table					
Skill Level	LPT	Skill Level	LPT	Skill Level	LPT
0	0	7	88	14	542
1	2	8	126	15	674
2	4	9	170	16	834
3	8	10	218	17	1026
4	16	11	274	18	1254
5	32	12	346	19	1522
6	56	13	434	20	1834

In general, skills represent ability in wide-ranging areas such as gun combat, climbing, and driving. Each skill contains a number of specific abilities, which combine to determine a character's overall ability and prowess. There are times however, when specific skills in detailed or specialized areas are important. To handle these areas, Qualified Skills are used.

Qualified Skills

Qualified Skills represent expertise with specific pieces of equipment or in particular actions. Unlike a character's Gun Combat Skill, Qualified Skills are specific in application and determine whether a character can safely use a piece of equipment or perform a specialized task.

A character learns Qualified Skills in the same manner as General Skills. For such training, both an instructor and equipment must be available. In general, 8th Skill Level is professionally qualified on complex equipment such as fighter planes, power armor, or demolitions. To be qualified for complex equipment such as radar sets, target locators, and positions such as an artillery forward observer or an operations officer, 6th Skill Level would be required. At 4th Skill Level the character is qualified in skills on the level of Dragon or TOW operations, artillery, or driving a tank. At 2nd Skill Level the character is capable of operating simple equipment requiring minimal special instruction, such as grenade launchers, rifle grenades, LAW rockets, and RPGs. Remember that in all cases a Qualified Skill will apply to only a single type of equipment or action; someone who is 8th Level with Demolition equipment would still be incapable of driving a tank, until he acquired that particular Qualified Skill.

8.2

THE ACTION / REACTION SYSTEM

The **Action/Reaction System** is a powerful tool from which a character's chance of succeeding at any feat may be found. The system covers the full range of human activity, from scaling a cliff to repairing a weapon to writing a poem. The system combines the feat's difficulty with the ability of the character to give the odds of success, or **Success Roll**.

To determine if the character successfully performs a task, total the roll of three six-sided dice. If this sum is less than or equal to the task's Success Roll, he has accomplished the task. If the sum is greater than the Success Roll, he fails. The basic chance of succeeding in a given feat is determined by the referee, using the guidelines shown below.

Base Odds and Success Roll

The referee can quickly determine the **Base Odds** for any feat by deciding what Skill applies to the task, and what Level in that Skill would be necessary to complete the task easily. This number is then subtracted from 16 to determine the Base Odds. For example, the referee might determine that a character with 6th Level Gun Combat would find it fairly easy to do a tuck roll through an open window. The Base Odds for this feat would then be $16 - 6 = 10$.

The **Success Roll** is then equal to the Base Odds plus the character's Skill Level in the appropriate Skill. Using the tuck roll as an example, the Success Roll for a character with 2nd Gun Combat Skill Level would be $10 + 2 = 12$; on a roll of 12 or less, he would succeed, and on a roll of 13 or more he would fail. A character with 8th Level Gun Combat would have a Success Roll of $10 + 8 = 18$, and would succeed automatically.

Note that failure of one task can lead rapidly into an attempt at another one. For example, if a character fails in an attempt to Climb a cliff, then he will have to attempt a Fall Recovery to avoid damage when he lands.

Interactive Tasks

Many activities are interactive. That is, they do not consist solely of a character testing his ability against nature, but involve the skills of an opponent as well. In these cases, the Success Roll equals the Base Odds, plus the Level of the character, minus the Level of the opponent.

Example: Gil has worked his way behind an unsuspecting guard. Gil wants to dispatch the guard silently and decides to use a Garrote. Attacking a surprised target from behind, the Base Odds are 16, an easy task. Since this is an interactive task, the Success Roll is 16 minus the opponent's Skill Level plus Gil's Skill Level. If the opponent were 2nd Level and Gil were 3rd, Gil's Success Roll would be $16 - 2 + 3 = 17$.

Modifiers

The Base Odds assume that the task is being performed under fairly normal conditions; that there are no significant distractions or unwarranted hazards, and that the proper tools are available. When the conditions are difficult, the odds of success should drop significantly. It is up to the referee to determine the exact handicap for each situation. The following modifiers are suggested as guidelines for situations in which a task is being attempted under less than ideal circumstances.

Character is moving faster than 1 Hex Per Phase	-1 per HPP over 1
Character is distracted or injured	-2
Character is under attack	-4

The referee should assign appropriate modifiers, based on the particular situation and task involved.

Success and Failure

In many cases the degree of success or failure can be very important. A particularly great success on a public project, for example, can bring a character to the attention of powerful people, while a spectacular failure can result in dismissal, loss of influence, or a similar social disaster. For many physical feats, failure can also result in injury or death. The following rules govern the degrees of success and failure.

In social situations, or other circumstances where there are greater and lesser levels of success and failure, the following chart should be used. Simply subtract the Success Roll from the number which the player rolled; a positive number indicates failure, and a negative number indicates success. Enter the number on the chart to determine the reaction of people to the feat. If the task is not publicly known, of course, there is no public response, and the rating simply gives the player and the referee an idea of how well or badly the character performed.

"I don't think they'll come out of their bunker... even if we ask them nicely."

Private Humbert

- +10 **Complete Disaster.** Entire careers are destroyed by failures of this magnitude.
- +7 **Catastrophe.** Accusations of gross negligence are likely, as well as lawsuits.
- +5 **Debacle.** A search for the responsible/guilty parties will follow.
- +3 **Fiasco.** The customer is angry, and the character's reputation is damaged.
- +2 **Blunder.** There are significant problems. "Don't call us, we'll call you."
- +1 **Failure.** An encouraging try that barely missed.
- 0 **Marginal Success.** Just meets requirements.
- 1 **Success.** Satisfactory performance, with minor reservations and gripes.
- 2 **Highly Satisfactory.** All parties involved are pleased.
- 3 **Brilliant.** The client is very happy.
- 5 **Major Accomplishment.** Commendations are likely.
- 7 **Masterpiece.** Promotions result; the character is seen as a "rising star" in the field.
- 10 **Work of Genius.** A major critical and popular success. The character is regarded as a true master.

"Have you finished cleaning Gerfel off the tank yet?"

Dracod McDraco
Tank Commander Extraordinaire

For tasks which involve a chance of damage to equipment or injury to the crew operating it, the following chart should be used. High Speed Driving is an ideal example of this sort of task.

Success Roll

Failed By	Result
1 - 2	No damage to crew or equipment.
3	Crew Injury, plus Superficial damage to equipment.(Bent fenders, etc.)
4 - 5	Crew Injury, plus Minor (MIN) damage to equipment.
6	Crew Injury, plus Major (MAJ) damage to equipment
7	Crew Injury, plus Replace (REP) damage to equipment.
8+	Crew Injury, plus irreparable damage to equipment.

The various levels of damage (MIN, MAJ, or REP) are discussed in our Role-Playing systems. For **Phoenix Command**, MIN, MAJ, and REP have identical effects; the equipment will no longer function until repaired or replaced.

If **Crew Injury** is indicated, then the damage must be calculated. This should also be done for failures in tasks which do not involve equipment but which are dangerous. This would include a failed Fall Recovery and similar dangerous activities.

To determine the **Physical Damage (PD)** done for most dangerous situations, use the following formula.

$$I \times 5 \times (6) = PD$$

In this formula, I is the amount the roll was failed by, and (6) is the roll of a six-sided die. For example, if a character needed a 12 to Succeed at a certain dangerous task and rolled a 15, then he would take a number of PD equal to 3 times 5 times (6), or 15 times the roll of a six-sided die. At the referee's discretion, this result may be subject to a further multiplier, based on the danger of the act.

For falls, a slightly different formula is used. Multiply the amount the roll was failed by times the number of feet fallen, times the roll of a six-sided die. If the character failed the

roll by 3 and fell 20 feet, for example, then the damage taken would be equal to 3 times 20 times (6), or 60 times the roll of a six-sided die.

Aborting a Feat

In some cases, the character may begin a feat, size up his chances, and then decide whether to commit or abort the attempt. This is possible only for definite, short duration actions, such as landing a plane or hurdling a wall. For such actions, the character may roll one of the three six-sided dice and then make his decision to commit or abort the attempt, before rolling the last two dice. Rolling a 5 or 6 might convince him that he is likely to fail, for example, where a 1 or 2 would probably make him more confident of success.

If the character aborts the attempt, he suffers no ill effects other than a loss of time, a missed opportunity, and possible embarrassment. Note that many feats do not lend themselves to this approach, such as judgements, decisions, and actions like smuggling an item past an inspector. Once the character is in line awaiting inspection, it would be very suspicious to suddenly bail out. Judgement in these matters is left to the referee.

8.3

TRAINING

One way that a character can develop his skills is through **Training** and instruction. (The other method, through Experience, is discussed in Section 8.4). A character trains in each skill separately, and a different Learning Point Total and Skill Level are kept for each.

The skills in which a character may train depend on the availability of suitable equipment and instructors. Unless otherwise determined by the referee, the characters will generally only be able to learn from each other, and the Skills they can study will be limited to those for which they have proper equipment.

In order to keep bookkeeping and the referee's work load to a minimum, learning is tracked on a monthly basis. At the end of each month, each player may determine the amount of time he has devoted to training, and find out how many Learning Points he has gained. The rules below are for when one entire month is spent in training; if only a fraction of a month is available, then the number of Learning Points earned should be prorated.

Training

If a character devotes a full month to training, then he receives a number of **Training Rolls** equal to his **Intelligence Characteristic (INT)**. This can be modified by his instructor's **Teaching Characteristic**, as shown below. For each Training Roll, a 00-99 number is generated. If the number is less than or equal to 15, he receives one **Learning Point** in whatever skill he is training in. As mentioned in Section 8.1, when the character has enough Learning Points in a certain skill to reach the Learning Point Total for the next higher level, the character has attained that Skill Level.

Teaching

Assuming that equipment is available, the character must have a suitable instructor who is willing to train him. The requirements for Teaching the various types of skills are as follows.

In order to teach someone a general skill, the instructor must be at least 1 Skill Level higher in the Skill than his students. Once a student becomes the same level as the instructor, he can gain no more from him. For **Qualified Skills**, the teacher must be 3 Levels above his students.

As mentioned above, the number of Learning Rolls a student gets is based on his INT, and modified depending on the instructor's Teaching characteristic. The following table is used to determine the actual number of Learning Rolls earned in a full month of training. (INT = student's Intelligence characteristic.)

Teaching Characteristic and Training			
TCH	Learning Rolls	TCH	Learning Rolls
3	INT - 4	12-13	INT + 1
4	INT - 3	14-15	INT + 2
5 - 6	INT - 2	16	INT + 3
7 - 8	INT - 1	17	INT + 4
9 - 11	INT	18	INT + 5

Example: Trent has an INT of 12, a Learning Roll of 15, and is learning Gun Combat from a teacher with Teaching 14. This means that Trent receives $12 + 2 = 14$ Learning Rolls for a full month's training. Note also that if Trent is 8th Level in Gun Combat, his instructor would have to be 9th Level or higher. Trent rolls percentile dice 14 times, and keeps track of every time he rolls less than or equal to 15. He succeeds 4 times, and therefore gains 4 Learning Points (LP) in Gun Combat that month.

There are two final notes. Characters may elect to train in more than one Skill during a given month. The player should simply decide how much time he will spend on each activity, and prorate the number of Learning Rolls he will receive for each. Also, characters who act as instructors receive only half their normal number of Learning Rolls for any training they do on their own.

On the Job Training

A character can improve his skills through practice, even if he is not working with a teacher. Training of this sort is called **On the Job Training**. Each month that a character elects to do this type of training, he receives a number of Learning Rolls equal to his INT divided by 4, in whatever Skill he wishes. As with all training, appropriate equipment must be available.

The referee may choose to allow players to receive these rolls even when they are not 'training', but are involved in certain tasks on a regular basis. That is, if the character is spending the month travelling on foot through a forest, then the referee might determine that he should receive On the Job Training in Survival, Scouting, Hunting, or something else which is applicable.

8.4

EXPERIENCE

A character may also advance in Skill Level through actual **Experience** in risky or unusual situations. Advancement through experience can be more rapid than through training, but it is certainly far more dangerous. In fact, danger is an important requirement for gaining Experience; to receive Experience, a character must extend his abilities beyond his normal limits in a crisis situation. A crisis situation is an event involving danger, where someone or something is depending on the character for help. Examples of crisis are combat, natural disasters such as floods, fires, and earthquakes, and any threat to the life of the character or a comrade.

Experience is given in **Learning Points (LP)**, which may be applied immediately. How Experience is awarded is covered below.

Combat Experience

A character is awarded combat experience each time he incapacitates an opponent in a crisis situation. Combat experience is limited to one opponent per act and the opponent must have a weapon capable of penetrating the character's heaviest armor. In other words, a character setting a trap which incapacitates 20 opponents gets credit for only one, and defeating an opponent armed with a slingshot when you are wearing Power Armor gives no Experience. The Experience gained in Learning Points is equal to the opponent's Skill Accuracy Level (SAL) divided by 10, plus the opponent's armor PF divided by 100.

8.5

LEADERSHIP

The following rules help define a character's leadership qualities and are used with the **Initiative** and **Morale** rules of Sections 5.5 and 5.6. The time it takes a commander to issue orders and his ability to rally troops is based on his Leadership characteristic.

The **Leadership Characteristic** is a secondary characteristic and can be determined by the sum of the roll of three six-sided dice. The character's Skill Accuracy Level (Section 1.3, Step 5) is added to his Leadership characteristic to find his **Leadership Skill Factor (LSF)**. The LSF determines the time required to issue orders and adjusts his odds of rallying troops.

To find the time required to issue orders, find the leader's **Command Time (CT)** opposite his LSF on the following **Leadership Table**. The Command Time is the time in Action Counts it takes him to issue each order. The orders must be simple and given to troops familiar with the leader's command and tactics. Orders given to inexperienced troops, or troops unfamiliar with his command, will take longer. The CT should be used as a guide for command time under the best of conditions. Players should modify the CT as the situation warrants.

Leadership Table					
LSF	CT	Rally Bonus	LSF	CT	Rally Bonus
3-10	280	-25	23-24	12	15
11-12	120	-20	25-26	10	20
13-14	80	-15	27-28	8	30
15-16	40	-10	29-32	6	35
17-18	32	-3	33-36	4	50
19-20	24	3	37-40	3	60
21-22	16	10	41-44	2	80

**"No retreat,
no surrender...
most of the time."**

Din the Decisive

Example:

Donovan has a Leadership characteristic of 13 and a Skill Accuracy Level of 9. His LSF is 22, so his CT is 16. He wants to order his squad to take cover and hold their fire as a larger enemy unit passes. He wants two of his men to set up their machinegun on a hill to his left and the rest of his squad to spread out under cover. It would take him 16 AC to order his troops to hold their fire unless spotted, 16 to send the two men up the hill, and 16 to tell his squad where to take cover: in all, 48 Action Counts.

A character's leadership abilities also influence his ability to rally a comrade. The greater his leadership, the greater his chance of rallying a broken man. This ability is measured by his **Rally Bonus** and is found opposite his LSF on the **Leadership Table**. Each time he tries to rally a broken man (Morale, Section 5.6), he may subtract his Rally

Bonus from the broken character's **Morale Roll**. If the broken man's adjusted roll is less than or equal to his Knockout Value, he has been rallied and may reinitiate action. For a commander, the time taken to attempt to rally a broken man is equal to the lesser of the character's Command Time or Rally Time from Section 5.6. Note that the Command Time for rallying troops only applies to a ranking officer or NCO. The Rally Bonus, on the other hand, may be used by anyone.

Example:

Donovan has an LSF of 22, so his Rally Bonus is 10. Donovan is rallying Gil, whose Knockout Value is 10. After 16 phases (Donovan's CT), Gil can attempt a Morale Roll. Gil rolls an 18, giving a modified roll of $18 - 10$ (Donovan's Rally Bonus) = 8. Gil's modified roll is less than his Knockout Value, so he has been rallied on the first attempt.

8.6

PERMANENT DISABILITIES

"It's good that you lost your sight. Otherwise, you'd see how awful your other injuries are."

Dr. Buen-Scheuk

The basic medical rules determine whether a character lives or dies, but the possibility of **Permanent Disabilities** was not included. While sophisticated medicine greatly improves the chance of survival, there is some damage which cannot be easily undone.

The chance of Permanent Disability is based on each individual wound. It is found by cross-indexing the wound location, **Injury Damage Total**, and medical aid received on **Table 10D**. The number found is the **Disabling Injury Chance (DIC)**. The wounded character rolls a 00-99 number hoping his roll will be greater than the DIC. If the roll is less than or equal to the DIC, he has failed his Disabling Injury Roll and should continue rolling 00-99 numbers until greater than the DIC is rolled. The number of times he fails the DIC roll determines the extent of the Disabling Injury.

A Disabling Injury to the arm increases the number of Action Counts required to perform any act using that arm by 50%. Disabling Injuries to the leg result in an additional +1 Movement Modifier applied to all movement costs. Disabling Injuries to the head result in a -2 penalty to the character's INT, WIL, CHR, MOT, and TS characteristics. Injuries to the spine result in a -2 penalty to the character's STR and HLT characteristics. Injuries to the body result in a -1 penalty to the character's STR and HLT characteristics. In all cases, the above penalties are applied for each failure of the DIC roll. For example, if a character suffered a leg wound, and failed the DIC roll three times, then he would have a +3 modifier to all movement.

When a character's STR goes to zero, he is no longer capable of independent action. When HLT goes to zero he requires life supporting equipment, only available at Tech Level 13 and above. When a character's INT, WIL, or MOT go to zero he no longer has the desire nor ability to act, and is no longer suitable for a player character.

Example:

A character receives two wounds to the arm (5 and 15 PD), and a single 30 PD wound to the head. He is treated in a Tech Level 13 Trauma Center and survives his injuries. If his Health characteristic is 12, his Damage Total to the arm would be $5 \times 10 / 12 = 4$ for the first injury, and $15 \times 10 / 12 = 12$ for the second. Referring to Table 10D, his DIC is 01 for the first injury and 09 for the second. He rolls a 67 for the first injury and suffers no permanent disability. He rolls an 85 for the second, and, again suffers no permanent disability.

His injury Damage Total to the head is $30 \times 10 / 12 = 25$. Referring to Table 10D, his DIC is 19. He rolls a 16 and fails his Disabling Injury Roll. His next roll is a 53, so he fails his DIC roll only once. The injury results in a permanent 2 point penalty to his INT, WIL, CHR, MOT, LDR, and TS characteristics. If his INT was 10, it would be reduced by 2 to an 8. The same would apply to each of the other characteristics.

9

ADVANCED SIMULATION

The rules in this Chapter are designed to provide players with the greatest realism possible. In general, they will be of greatest value to the purist, but all players will find occasions in which they are useful.

9.1

FREE ACTIONS

In the Impulse system of play, game time advances as a series of Impulses. For convenience each set of four Impulses is called a Phase, but in general, the Impulse is the basic game time scale and it proceeds indefinitely until the combat is resolved. The timing of actions during each Impulse is defined using the **Shot Timing Within an Impulse** rules of Section 5.7. These rules allow the players to resolve each of their character's actions down to the tenth of a second. When playing on this scale, players will wish to use **Free Actions**. Free Actions are those the character may perform as he is doing another action such as movement. Examples of Free Actions are the actual act of pulling the trigger, tossing a grenade while moving, or breaking a firing stance while changing stance.

It is important that the player understand the concept of Free Actions. Each instant the player must know what his character is doing. A character who is prone in a firing stance may rise to his feet using 3AC. While rising he may break firing stance as a Free Action. Once he has risen to his feet he may move forward two hexes using another 2AC. While moving he could fire two Snap Shots as Free Actions. Note that only Snap Shots (1 AC Aim Time) may be fired as Free Actions. In this way, the character only pays in AC for the dominant actions he is performing. Other secondary actions are performed as Free Actions. As a general guide, Free Actions must be those requiring little if any concentration or thought. They are automatic actions performed as the character performs his primary act. When in doubt, the referee should use common sense and his own judgement as to what constitutes a Free Action. For example, an act which is not free is reloading a rifle while running. The act of reloading would require concentration and visual contact taking away the character's ability to run quickly. It is possible for the character to reload while moving, but the reload time must be paid for. This will mean he has fewer CA for movement and in effect reduces his movement speed.

9.2

GROUND BURST EXPLOSIVES

The **Base Shrapnel Hit Chance (BSHC)** of the basic system assumes a ground burst on a flat surface. This would be typical of town fights and close actions within buildings. In the field this is not the case. The Cover Generation rules of Section 7.1 give a method by

which outdoor cover and ground depressions may be generated. When these cover outlines are used, shrapnel protection afforded by cover is accurately handled. An intervening cover outline of blocking height and PF protects the target from shrapnel.

When detailed cover for an entire battlefield has not been generated, the referee needs a simple set of rules to determine a target's chance of being protected from shrapnel by intervening cover. The **Ground Burst Cover Chance Table (12A)** gives this chance. To use this table, simply cross-index the battlefield's terrain type with target range from burst in 2 yard hexes. The target rolls a 00-99 number. If less than or equal to the number found on **Table 12A** is rolled (for the target's stance: prone, kneeling, or standing), there is blocking cover between the target and the ground burst. If greater than this number is rolled, there was no cover, and the target is subjected to possible shrapnel hits. In either case, the burst's concussion damage is handled using standard rules with appropriate Blast Modifiers.

Example:

Donovan's patrol is crossing Flat terrain as they come under enemy fire. An enemy grenade launcher lobs a grenade 2 hexes from Donovan's position. Donovan is prone when the grenade detonates. The chance of blocking cover being between Donovan and the blast is 04, found on Table 12A. Donovan rolls a 02 so is behind blocking cover. He would take only concussion damage from the blast, with Blast Modifiers of .75 (target prone) and .01 (target behind solid cover).

9.3

MINES AND TRAPS

Mines and traps play a major role in modern warfare. In some conflicts, casualties inflicted by these devices exceed those from small arms fire. This section covers contact or tripwire detonated mines.

Contact Mines

Contact detonated landmines are often buried or placed under cover to hide them from view. Detonation occurs when a target steps on or comes in direct contact with the mine. The following **Landmines and Tripwire Table** gives the chance of detonating a mine based on actions within the 2 yard hex containing the mine. Each phase a target is in a hex containing a mine, he must make a 00-99 roll. If less than or equal to the value on the Table is rolled, he detonated a mine. If greater than the value is rolled, he did not contact a mine that phase. The target must make one roll for each mine in a hex.

Mines and Trip Wires		
Action In Hex	Land Mine	Trip Wire
Man		
Walking	04	90
Trotting	02	25
Running	00	10
Hands & Knees	20	99
Crawling	30	99
Standing	02	15
Kneeling	06	30
Prone	16	90

Mines and Trip Wires		
Action in Hex	Land Mines	Trip Wire
Vehicles		
Wheeled	10	99
Tracked	20	99
Horse		
Standing	10	90
Walking	05	50
Running	02	30

Example: Alan Boyar unknowingly walks into a minefield. The field is 20 hexes wide and contains one mine per hex. To cross safely, he must make twenty 00-99 rolls greater than a 04 (man walking across hex). On his tenth roll, he rolls a 01 and detonates a mine. The blast throws him into the next hex where he lands in a prone position. To land prone in a hex without detonating another mine, he must roll greater than a 16. He rolls a 08 and detonates a second mine.

Tripwire Detonated Mines

Tripwires are simple lines strung across the enemy's path. An enemy snagging the line detonates the mine. The location of tripwires within a hex must be specified prior to play. They are usually placed so that enemy movement through the hex means the wire must be crossed.

If an enemy crosses a tripwire, the chance of his detonating the mine is found on the Table under the Tripwire column. The target rolls a 00-99 number. If less than or equal to the value opposite his action is rolled, he detonates the mine.

Spotting Mines and Tripwires

A character's chance of spotting a mine or tripwire depends on his skill, caution, and luck. To find the chance of detecting the danger before crossing the hex, use the Spotting Rules of Section 7.2. Spotting Modifiers for mines and tripwires are found on **Table 11A**.

Mine Effects

There are countless types of Mines, ranging from small Mines deliberately designed to injure rather than kill up to large, devastating anti-tank mines. The basic Mine is about as powerful as a Hand Grenade; for a light anti-personnel mine, players should use the data for the M26 Hand Grenade, without shrapnel. Mines of this sort are easy to carry and deploy, and are often made without metal, to make detection more difficult.

Tripwires are commonly used to detonate normal Hand Grenades; players using Tripwires should feel free to select any appropriate Hand Grenade as the explosive device to accompany a Tripwire. Another common device used with Tripwires is the **Claymore Mine**, which is discussed in the **Special Weapons Weapon Data Supplement**.

"Boyar hasn't returned from patrol, sir. He's still bouncing around the minefield."

Corporal Nawoc

9.4

TIME OF FLIGHT

The basic system does not include the weapon's **Time of Flight (TOF)** in the Odds of Hitting. For small arms fire at close range, this is acceptable, but for many explosive weapons, such as grenade launchers, the TOF can be significant and should be included. The TOF is given in the **Weapon Data Tables** below the PEN and DC values and gives the bullet's flight time in tenths of seconds.

To include the TOF, simply add the TOF to the time the shot was fired, and run game time out to this time before resolving damage and the Odds of Hitting. The Target Size Modifier should correspond to the target's stance at this later time. Remember that there are 5 TOF increments per Impulse and 20 per Phase. For thrown grenades with Impact fuses, the following table gives their TOF opposite throw range in 2 yard hexes.

Thrown Grenade Time of Flight

Range	TOF
1-7	2 Impulses
8-18	4 Impulses
19-35	6 Impulses
36-52	8 Impulses

9.5

EVASIVE ACTION

The basic system has a **Moving Target ALM** but does not account for **Evasive Action**. The Moving Target ALM accounts for pointing errors associated with tracking the target's motion, or alternatively timing the fire as the target passes the point of aim. This is adequate at common combat ranges, but to be accurate, the projectile's **Time of Flight (TOF)** and the target's **Movement Uncertainty (MU)** during this TOF must be examined.

The Movement Uncertainty is similar to the Ballistic Accuracy (BA). The smaller the MU, the greater the uncertainty in the target's motion. Even if the projectile can be aimed perfectly, if the target's position at the time the projectile arrives is uncertain, the shot may miss; the Odds of Hitting being governed by target position uncertainty rather than the shooter's accuracy.

As an example, consider a target moving across a cluttered field. If the TOF is 20 (2 seconds), the shooter must predict where the target will be 2 seconds after he fires. If he cannot predict whether the target will run left or right around a bush, there is a 50% uncertainty in guessing the target's course, and therefore, a 50% chance of hitting even if the weapon can be aimed with perfect accuracy. Movement Uncertainty (MU) accounts for these unknowns.

To include Movement Uncertainty, we must consider both the target's actual speed in Hexes per Phase, based on the Actions applied to movement and on the terrain, and his **Effective Movement (EM)**. Effective Movement (EM) is the number of hexes that a target actually moves; the difference between the Target's Speed and his Effective Movement represents actions during which the target is dodging. A target with EM = 0 is dodging fire by moving left, right, forward, and backward randomly. Although constantly in motion, his Effective Movement on the game surface is zero. A target with EM = 4 can move up to 4 hexes on the game surface that phase.

Example:

A target using 4 Action Counts for movement in a running stance has a Target Speed of 4 hexes per phase for use in the Moving Target Table (4D) and Movement Uncertainty Table (12B). The EM determines how much of this movement can be used for changing his position on the game surface. With an EM = 0, he is dodging at a Target Speed 4 but his movement on the game surface is zero. At an EM = 2 he may move 2 hexes, and with an EM 4 he may move the full 4 hexes in a direction of his choosing (Figure 2).

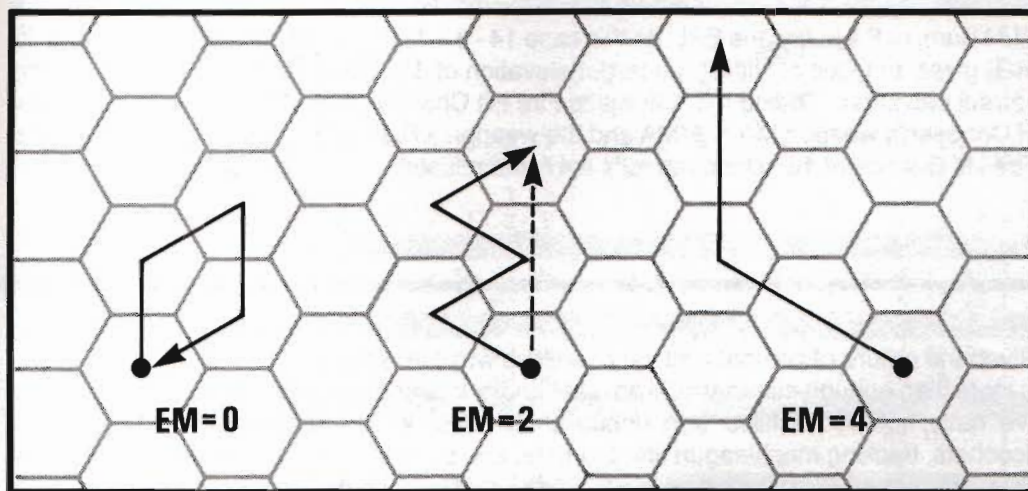


Figure 2

Single Shot Fire

For single shot fire, examine the **Evasive Action Table (12B)** and cross-index the Target's Speed and Effective Movement (EM) with the projectile's Time of Flight (TOF). The weapon's TOF can be found on the **Weapon Data Tables** just below the PEN and DC values. This will result in two numbers. The first number is the Movement Uncertainty (MU). The second, the **Movement Minimum Arc (MMA)**, which will be discussed later. Compare the MU to the shot's ALM sum and Ballistic Accuracy (Section 6.2). The smallest of these three values should be added to the Target Size ALM to find the Effective Accuracy Level (EAL). This EAL is used on the **Single Shot Odds Table (4G)** to find the Odds of Hitting.

Fully Automatic Fire

For each burst of Fully automatic fire, cross-index the Target's Speed and EM with the weapon's TOF on the **Evasive Action Table (12B)** to find the MU and **Movement Minimum Arc (MMA)**. Now compare the MU to the shot's ALM Sum and BA (Section 6.2). Add the smallest of the three to the target's Auto Elev target size modifier to find the EAL. This EAL is used on the **Burst Elevation Odds Table (4G)** to find the Odds of the burst being at the target Elevation. If it is, the Automatic Fire Hit Chance is found on **Table (5A)** using the larger of the weapon's MA or MMA (Table 12B).

Example:

Donovan fires at a running target 400 hexes away. The enemy is advancing using 6 Action Counts per phase for movement and is evading fire at an EM = 3. This gives the enemy a movement speed of 3 hexes per phase on the game surface, and a Target Speed of 6.

Donovan fires a single shot with an ALM Sum of 2, while his weapon's BA = 11 and TOF = 10. Entering Table 12B with a Target Speed of 6, EM 3, and TOF 10, we get an MU of -3 and MMA of 5. Adding the Target Size ALM of 8 to the lesser of the ALM Sum, BA, or MU, gives an EAL of 5. Entering the Single Shot Odds Table (4G), Donovan's Odds of Hitting are 04.

Had Donovan fired a fully automatic burst, his ALM Sum, BA, and TOF values would again be 2, 11, and 10, respectively. The target's MU and MMA value would again be -3 and 5. For automatic fire, we add the Auto Elev target size modifier to the lesser of the MU,

**"How am I shooting?
Call 1-800-GOOD-AIM"**

Sticker commonly attached to
vehicles used by Neemis Enter-
prises

ALM Sum, or BA to find the EAL. In this case $14 - 3 = 11$. The Burst Elevation Odds Table (4G) gives an Odds of Hitting the target elevation of 38. Donovan rolls a 27 and hits the correct elevation. To find the Automatic Fire Hit Chance, enter Table 5A with the larger of Donovan's weapon MA or MMA and the weapon's ROF of 7. This gives an Automatic Fire Hit Chance of 16. Donovan rolls a 47 and misses.

9.6

SON OF ADVANCED PHOENIX COMMAND

Given the nature of combat and the countless ways in which people respond to it, there is more than enough material to fill an additional supplement of rules for special situations. We have notebooks filled with unpublished rules; where stray shots go, effects of ricochets, tracking machinegun fire, thermite, and so forth. It is really a question of which rules are worth incorporating, and which topics are of the greatest interest to the most people.

In a sense, we have reached a plateau. The rules which were most important we have obviously included in Phoenix Command itself, and the next batch went into this product. Prominent weapons of various eras and technologies are being published on an ongoing basis, and the Artillery, Role-Playing, and Mechanized Systems will be released in the fairly near future. This leaves us with some choices about where to take Phoenix Command, and that is where you come in.

We would appreciate it if you would write to us with your suggestions about future topics for rules subsystems, so we can decide whether to bother with an Advanced Rules, Volume 2, or if we should just concentrate on new Weapon Data Supplements. If you are interested in rules for, say, stray shots, let us know; the same if you need rules governing how incendiary and tracer rounds set fire to things, or whatever else seems important. If there is a topic which comes up regularly for you, but which we have not addressed, drop us a line.

It is not our intention to respond personally to each letter we receive. Sorry, but there are only so many hours in the day, and we are not exactly overstaffed. We will read each one personally, however, and we do want to know what you are waiting for. The address to write to is Leading Edge Games, P.O. Box 70669, Pasadena, CA 91107. Hope to hear from you soon.

Blunt Trauma Damage Table / 9A

AID	Head - Heart										Body										Limbs									
	BPF										BPF										BPF									
	10	9	8	7	6	5	4	3	2	1	10	9	8	7	6	5	4	3	2	1	10	9	8	7	6	5	4	3	2	1
1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	1	1	1
2	-	-	-	-	-	-	-	-	1	2	8	-	-	-	-	-	-	1	2	3	-	-	-	-	-	-	-	1	2	3
3	-	-	-	-	-	-	-	-	1	40	64	-	-	-	-	-	-	2	5	7	-	-	-	-	-	-	-	2	5	7
4	-	-	-	-	-	-	-	-	14	87	1H	-	-	-	-	-	-	4	10	15	-	-	-	-	-	-	-	4	10	14
5	-	-	-	-	-	-	-	-	56	2H	3H	-	-	-	-	-	-	6	17	23	-	-	-	-	-	-	-	6	16	24
6	-	-	-	-	-	-	-	-	84	3H	5H	-	-	-	-	-	-	10	26	36	-	-	-	-	-	-	-	10	24	35
7	-	-	-	-	-	-	-	-	1H	5H	8H	-	-	-	-	-	1	14	37	54	-	-	-	-	-	-	-	14	34	50
8	-	-	-	-	-	-	-	-	2H	8H	1K	-	-	-	-	-	1	18	53	-	-	-	-	-	-	-	-	18	46	67
10	-	-	-	-	-	-	-	-	4H	1K	-	-	-	-	-	1	1	31	93	-	-	-	-	-	-	-	1	30	74	
12	-	-	-	-	-	-	-	-	7H	2K	-	-	-	-	1	1	1	49	1H	-	-	-	-	-	-	-	1	38	1H	
14	-	-	-	-	-	-	-	-	1K	-	-	-	-	1	1	1	1	72	-	-	-	-	-	-	-	1	1	46	-	
16	-	-	-	-	-	-	-	-	2K	-	-	-	-	1	1	1	1	1H	-	-	-	-	-	-	-	1	1	55	-	
20	-	-	-	-	-	1	1	3K	-	-	-	-	1	1	1	1	1	2H	-	-	-	1	1	1	1	1	-	-	-	
30	-	-	-	1	1	1	2	-	-	-	-	1	1	1	1	2	2	-	-	-	-	1	1	1	1	2	-	-	-	
50	1	1	1	2	2	2	3	-	-	-	-	1	1	2	2	2	3	4	-	-	-	1	1	1	1	2	2	3	-	
70	1	1	2	2	3	4	4	-	-	-	-	1	2	2	3	3	4	5	-	-	-	1	1	1	2	2	3	4	-	
90	1	2	2	3	4	5	-	-	-	-	-	2	2	3	3	3	5	7	-	-	-	1	1	2	2	3	3	5	-	

Three Round Burst Hit Chance / 9B

3RB Value	Effective Accuracy Level (EAL)																									
	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3
-11	99	99	98	96	93	90	86	80	74	68	61	54	47	40	34	29	24	19	16	13	10	8	6	5	4	3
	97	95	91	87	82	76	69	62	55	48	41	35	29	24	19	16	13	10	8	6	5	4	3	2	2	1
	89	85	79	73	66	59	52	45	38	32	26	21	17	14	11	8	6	5	4	3	2	1	1	0	0	0
-6	99	99	98	96	94	91	88	83	78	72	66	60	53	46	40	34	29	24	20	16	13	11	8	7	5	4
	90	86	80	74	67	60	52	45	39	33	27	22	18	15	12	9	7	6	5	4	3	2	2	1	1	1
	25	20	16	13	10	8	6	4	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
-4	99	99	98	96	94	91	88	83	78	73	67	61	54	48	42	36	31	26	21	18	14	12	9	7	6	5
	80	74	67	60	52	45	39	33	27	22	18	15	12	9	7	6	5	4	3	2	2	1	1	1	1	0
-2	99	99	97	96	93	90	86	82	76	71	65	59	53	47	41	35	30	25	21	18	14	12	10	8	6	5
	52	45	38	32	27	22	18	15	12	9	7	6	5	4	3	2	2	1	1	1	1	0	0	0	0	
0	99	98	97	95	93	89	85	80	75	69	63	57	51	45	40	34	30	25	21	18	15	12	10	8	6	5
4	99	98	97	94	91	87	82	76	70	63	57	50	44	38	33	28	24	20	17	14	12	10	8	6	5	4
10	99	98	96	94	90	86	81	75	68	61	54	47	40	34	29	24	20	16	13	11	9	7	6	5	4	3
16	99	98	96	94	90	86	80	74	67	60	53	46	39	33	28	23	19	15	12	10	8	6	5	4	3	2

Effective Minimum Arc / 9C

Situation		.2	.3	.4	.5	.6	.7	.8	.9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Rifle or SMG	Standing	.5	.7	1	1	1	2	2	2	2	5	7	10	12	14	17	19	22	24	26	29	31	34	36
	Kneeling	.4	.5	.7	.9	1	1	1	2	2	4	5	7	9	11	13	14	16	18	20	22	23	25	27
	Prone	.2	.3	.4	.5	.5	.6	.7	.8	.9	2	3	4	5	5	6	7	8	9	10	11	12	13	14
Machine Gun	Standing	.8	1	2	2	2	3	3	3	4	8	11	15	19	23	26	30	34	38	41	45	49	53	56
	Kneeling	.6	.8	1	1	2	2	2	3	3	6	8	11	14	17	20	22	25	28	31	34	36	39	42
	Hip Firing	.3	.5	.6	.8	1	1	1	1	2	3	5	6	8	10	11	13	14	16	18	19	21	22	24
Strength	3 - 8	.3	.4	.5	.7	.8	.9	1	1	1	3	4	5	7	8	9	10	12	13	14	16	17	18	20
	12 - 15	.2	.3	.3	.4	.5	.6	.7	.8	.9	2	3	3	4	5	6	7	8	9	9	10	11	12	13
	16 - 18	.2	.2	.2	.3	.4	.4	.5	.5	.6	1	2	2	3	4	4	5	5	6	7	7	8	8	9
One Hand Fire		.4	.5	.7	.9	1	1	1	2	2	4	5	7	9	11	13	14	16	18	20	22	23	25	27
Shooter Moving		.4	.6	.8	1	1	1	2	2	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30

Smoke Table / 10A								
Elapsed Time Phases	Wind Speed HPP	Smoke Diameter						
		8	7	6	5	4	3	2 1
5	1	B	B	B	B	B	B	B
10	2	B	B	B	B	B	B	-9
15	3	B	B	B	B	B	B	-11 -5
20	4	B	B	B	B	B	-12	-9 -3
25	5	B	B	B	B	-12	-10	-8 -1
30	6	B	B	B	-13	-11	-9	-5 0
35	7	B	B	-13	-11	-10	-7	-4
40	8	B	-13	-12	-10	-9	-6	-3
45	9	-13	-12	-11	-9	-8	-5	-2
50	10	-12	-11	-10	-9	-7	-5	-1
55	11	-11	-10	-9	-8	-6	-4	-1
60	12	-11	-10	-9	-7	-5	-3	0
65	14	-10	-9	-7	-6	-4	-2	
70	16	-9	-7	-6	-5	-3	-1	
75	18	-8	-7	-5	-4	-2	0	
80	20	-7	-6	-5	-3	-1		
85	22	-6	-5	-4	-2	-1		
90	24	-5	-4	-3	-2	0		
95	26	-5	-4	-2	-1			
100	30	-4	-3	-1	0			
105	34	-3	-2	0				
110	38	-2	-1					
115	42	-1	0					
120	46	0						

Cover Generation Table / 10B														
Terrain		Cover Generation Number												
		-3	-1	0	1	2	3	4	5	6	7	8	9	11 13
Flat	Type	6	6	6	6	-	-	-	2	2	2	3	3	3 6
	Height	S	S	S	K	-	-	-	P	P	P	K	P	K S
	Number	16	6	2	2	-	-	-	1	2	2	2	2	2 1
	PF	0	0	0	0	-	-	-	20	50	50	1K	3H	2K 5K
Hilly	Type	6	6	6	-	-	2	3	3	3	3	3	3	4 6
	Height	S	S	S	-	-	P	P	P	P	P	K	K	K S
	Number	9	3	2	-	-	2	2	2	2	2	3	3	3 1
	PF	0	0	0	-	-	20	20	50	50	3H	1K	1K	2K 5K
Forest	Type	6	6	3	3	3	3	3	3	3	2	3	3	3 6
	Height	S	S	S	S	S	S	S	K	P	P	K	P	K S
	Number	16	6	16	9	6	3	3	3	3	3	2	2	2 1
	PF	1	1	20	30	40	50	50	50	30	50	1K	3H	1K 5K
Mountain	Type	6	6	6	-	2	2	3	3	3	3	3	3	4 6
	Height	S	S	S	-	P	P	P	P	P	K	K	S	K S
	Number	9	3	2	-	2	2	2	2	2	3	3	3	4 4
	PF	0	0	0	-	20	20	50	50	3H	1K	2K	4K	2K 6K
Local Terrain Modifiers														
Heavy Brush	-4	Marsh	-2	River Bed	+2									
Light Brush	-3	Desert	-2	Rocky	+3									
Trees	-2	High Wind	-1	Large Rocks	+4									

Blind Fire / 10C	
Target Size ALM	Hit Chance
15	99
14	85
13	64
12	48
11	37
10	28
9	21
8	16
7	12
6	9
5	7
4	5
3	4
2	3
1	2
0	1

Disabling Injury Chance / 10D													
Injury Damage Total								Trauma Center					
Arm	Leg	Body	Spine Head	No Aid	First Aid	Aid Station	Field Hosp.	13	14	15	16	17	18
4	9	50	4	09	02	01	01	01	01	-	-	-	-
10	60	300	10	44	34	19	09	04	01	-	-	-	-
20	120	600	20	84	59	34	19	09	04	01	-	-	-
30	180	1K	30	97	89	49	39	19	09	04	-	-	-
50	300	2K	50	99	95	79	69	39	19	09	01	-	-
70	420	3K	70	*	98	89	79	59	39	19	01	01	-
90	540	4K	90	*	99	94	89	69	59	39	19	04	01
120	740	6K	130	*	*	97	94	79	69	59	39	09	04
		1T	200	*	*	99	97	89	79	69	59	19	09
		2T	400	*	*	*	99	94	89	79	69	39	19
		4T	1K	*	*	*	*	*	94	89	79	59	39
		8T	2K	*	*	*	*	*	99	94	89	79	59
			4K	*	*	*	*	*	*	99	97	94	69
			1T	*	*	*	*	*	*	*	99	97	79
			2T	*	*	*	*	*	*	*	*	99	89
* Total Disability			4T	*	*	*	*	*	*	*	*	*	94

Spotting Modifier Table / 11A

Range	Mod	Terrain	Mod	Max Range	Speed	Target	Spotter	Miscellaneous	Mod	
2	1	Town or Building	-2	LOS	0	0	0	Target	in Normal Clothing	-2
3	2	Flat little Cover	-1	LOS	1/3	-1	+1		in Fatigues	0
4	3	Hilly	0	LOS	1/2	-3	+2		in Camouflage	+2
6	4	Mountainous	0	LOS	1	-6	+3		Silhouetted	-6
8	5	Forest	+2	50-100	2	-7	+5		in Shadow	+1
11	6	Light Brush	+2	50-100	4	-8	+6			
16	7	Heavy Brush	+3	20-50	6	-9	+7	Spotter using Binoculars (Scan 10 only)		-5
23	8									
32	9	Lighting			Target Size ALM		Mod	Skill Level	Spotter	- SL / 3
45	10	Overcast	+1	800	-4		+5		Target	+ SL / 3
64	11	Dusk	+2	400	0		+4			
90	12	Full Moon	+3	200	2		+3	Target	Muzzle Flash Night	-25
130	13	Half Moon	+4	140	4		+2			
180	14	Quarter Moon	+5	100	6		+1	Smoke	-Vis ALM of Table 10 A	
260	15	No Moon	+7	20	8		0			
360	16	Looking into Sun	+3	LOS	10		-1	Landmines	Hand Laid	+12
510	17	Rain	+3	50-200	14		-2		Auto Dispersed	+10
720	18	Snow	+4	20-40	20		-4		Unconcealed	+4
1020	19	Fog	+5	10-50	26		-6		Tripwire	+9

Spotting Table / 11B

Scan Area	Spotting Level Modifier (SLM)																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	*1	*1	*1	*1	*1	*1	*2	*2	*2	*3	*4	99	83	70	57	33	19	9	5
2	*1	*1	*1	*2	*2	*2	*3	*3	*4	92	79	68	58	50	42	25	14	7	4
5	*1	*2	*2	*3	*4	96	82	71	62	54	47	40	30	30	26	16	9	5	3
10	*1	*2	*3	89	77	66	55	47	41	36	31	27	23	20	18	11	7	3	2
20	*1	*2	*4	75	60	48	39	32	28	24	21	18	16	14	12	7	4	2	2
50	*2	*2	91	63	50	38	28	21	18	14	12	10	9	8	7	4	3	1	1
100	*2	*2	87	60	45	34	25	19	14	11	9	7	6	5	4	3	2	1	1
60 Degrees	*1	*1	*2	*4	80	58	40	28	20	14	10	7	5	4	3	1	1	0	0
120 Degrees	*1	*2	*3	83	62	46	31	22	16	11	8	6	4	3	2	1	1	0	0
180 Degrees	*2	*2	83	56	42	30	21	14	10	7	5	4	3	2	1	1	0	0	
240 Degrees	*2	*4	64	44	33	24	16	11	8	6	4	3	2	2	1	1	0		
360 Degrees	*2	67	50	33	25	18	12	9	6	4	3	2	2	1	1	0	0		

Group Spotting Table / 11C

Spotting Chance	Group Spotting Number																		
	2	4	6	8	10	12	14	16	18	20	24	30	40	50	60	80	100	120	150
00	1	3	5	7	9	10	12	14	16	17	20	25	32	38	44	54	62	69	77
02	5	10	16	21	25	30	34	38	41	45	51	59	69	77	83	90	94	96	
04	9	18	25	33	39	45	50	55	59	63	70	78	86	91	94	97	98		
06	13	24	34	43	51	57	63	68	72	76	81	88	94	96	98				
10	20	36	49	60	68	74	79	84	85	89	93	96	98						
15	28	49	63	74	80	86	90	93	95	96	97								
20	37	60	75	84	90	93	95	97	98	98									
25	44	69	82	90	94	96	97	98											
30	51	76	88	94	97	98	98												
40	64	86	94	97	98														
50	75	93	98																
60	84	97																	
70	90	98																	
80	96																		
90	98																		

Spotting Automatic

Ground Burst Cover Chance / 12A

Range Burst	Flat			Hills			Forest			Mountain		
	Prone	Kneel	Stand	Prone	Kneel	Stand	Prone	Kneel	Stand	Prone	Kneel	Stand
0	00	-	-	02	00	-	02	00	-	02	00	-
1	02	-	-	04	02	00	04	02	00	04	01	00
2	04	00	-	09	04	01	09	04	01	09	03	01
3	06	01	-	14	06	01	14	06	01	14	06	01
4	09	01	-	18	09	02	18	09	02	18	08	02
5	11	02	-	23	11	03	23	11	03	23	09	03
6	13	02	-	27	13	04	27	13	04	27	12	04
8	17	03	-	34	17	05	34	17	05	34	15	05
10	21	04	-	41	21	07	41	21	07	41	19	07
12	23	05	-	47	23	09	47	23	09	47	23	09
14	27	07	-	53	27	10	53	27	10	53	26	10
16	31	08	-	57	31	12	57	31	12	57	29	12
18	34	09	-	61	34	13	61	34	13	61	32	13
20	37	10	-	65	37	14	65	37	14	65	35	14

Evasive Action Table / 12B

Target Speed	Effect. Move	Time of Flight (TOF)											
		1	2	3	4	5	6	8	10	12	14	16	18
1	0	26/.2	21/.2	18/.3	16/.4	14/.5	13/.6	11/.8	9/1	8/1	7/1	6/2	5/2
	1	32/.2	27/.2	24/.2	22/.2	20/.2	19/.3	17/.3	15/.4	14/.5	13/.6	12/.7	11/.8
2	0	21/.2	16/.4	13/.6	11/.8	9/1	8/1	6/2	4/2	3/2	2/3	1/3	0/4
	1	22/.2	17/.4	14/.5	12/.7	10/.9	9/1	7/1	5/2	4/2	3/3	2/3	1/3
	2	27/.2	22/.2	19/.3	17/.3	15/.4	14/.5	12/.7	10/.9	9/1	8/1	7/1	6/2
3	0	18/.3	13/.6	10/.9	8/1	7/2	5/2	3/2	2/3	0/4	-1/4	-2/5	-3/5
	1	18/.3	13/.6	10/.9	8/1	7/1	6/2	3/2	2/3	1/3	-1/4	-1/5	-2/5
	2	20/.2	15/.5	12/.7	10/1	8/1	7/1	5/2	3/2	2/3	1/3	0/4	-1/4
	3	24/.2	19/.3	16/.4	14/.5	12/.7	11/.8	9/1	7/1	6/2	5/2	4/2	3/2
4	0	16/.4	11/.8	8/1	6/2	4/2	3/2	1/3	-1/4	-2/5	-3/6	-4/6	-5/7
	1	16/.4	11/.8	8/1	6/2	5/2	3/2	1/3	0/4	-2/5	-3/5	-4/6	-5/7
	2	17/.4	12/.7	9/1	7/1	5/2	4/2	2/3	0/4	-1/4	-2/5	-3/6	-4/6
	3	18/.3	13/.6	10/.9	8/1	7/1	5/2	3/2	2/3	0/4	-1/4	-2/5	-3/5
5	4	22/.2	17/.3	14/.5	12/.7	10/.9	9/1	7/1	5/2	4/2	3/2	2/3	1/3
	0	14/.5	9/1	7/2	4/2	3/3	2/3	-1/4	-2/5	-3/6	-5/7	-5/8	-6/9
	1	14/.5	10/1	7/1	5/2	3/2	2/3	0/4	-2/5	-3/6	-4/7	-5/8	-6/9
	2	15/.5	10/.9	7/1	5/2	3/2	2/3	0/4	-2/5	-3/6	-4/7	-5/7	-6/8
	3	16/.4	11/.8	8/1	6/2	4/2	3/3	1/3	-1/4	-2/5	-3/6	-4/7	-5/8
	4	17/.3	12/.7	9/1	7/1	5/2	4/2	2/3	1/3	-1/4	-2/5	-3/6	-4/6
6	5	20/.2	15/.4	12/.7	10/.9	9/1	7/1	5/2	4/2	3/3	1/3	0/3	0/4
	0	13/.6	8/1	5/2	3/2	2/3	0/4	-2/5	-3/6	-5/7	-6/8	-7/10	-8/11
	1	13/.6	8/1	5/2	3/2	2/3	0/4	-2/5	-3/6	-5/7	-6/8	-7/9	-8/11
	2	13/.6	8/1	6/2	3/2	2/3	1/3	-1/5	-3/6	-4/7	-5/8	-6/9	-7/10
	3	14/.5	9/1	6/2	4/2	2/3	1/3	-1/4	-3/5	-4/6	-5/8	-6/9	-7/10
	4	15/.5	10/1	7/1	5/2	3/2	2/3	0/4	-2/5	-3/6	-4/7	-5/8	-6/9
8	5	16/.4	11/.8	8/1	6/2	4/2	3/2	1/3	0/4	-2/5	-3/6	-4/6	-5/7
	6	19/.3	14/.5	11/.8	9/1	7/1	6/2	4/2	3/3	1/3	0/4	-1/4	-2/5
	0	11/.8	6/2	3/2	1/3	-1/4	-2/5	-4/6	-5/8	-7/10	-8/11	-9/13	-10/14
	1	11/.8	6/2	3/2	1/3	0/4	-2/5	-4/6	-5/8	-7/10	-8/11	-9/13	-10/14
	2	11/.8	6/2	3/2	1/3	0/4	-2/5	-4/6	-5/8	-7/9	-8/11	-9/12	-9/14
	3	11/.8	6/2	4/2	2/3	0/4	-1/5	-3/6	-5/8	-6/9	-7/11	-8/12	-9/14
	4	12/.7	7/1	4/2	2/3	0/4	-1/4	-3/6	-5/7	-6/9	-7/10	-8/11	-9/13
	5	12/.7	7/1	4/2	2/3	1/3	0/4	-3/5	-4/7	-5/8	-7/9	-7/11	-8/12
	6	13/.6	8/1	5/2	3/2	2/3	0/4	-2/5	-3/6	-5/7	-6/8	-7/9	-8/11
	7	14/.5	10/1	7/1	5/2	3/2	2/3	0/4	-2/5	-3/6	-4/7	-5/8	-6/9
	8	13/.3	12/.7	9/1	7/1	5/2	4/2	2/3	0/3	-1/4	-2/5	-3/6	-4/6

PHOENIX COMMAND™

Advanced Rules

The **Advanced Phoenix Command Supplement** expands on the rules provided in the **Phoenix Command Combat System**, allowing players to handle a wide variety of special situations. Each section is modular, making it easy for players to use the appropriate rules, and to select the exact level of game detail desired. More than 20 different sections are included, among them:

Blunt Trauma: When Body Armor stops a bullet, it only stops the penetration; it does not necessarily stop the severe bruising and possible broken bones which may result from the bullet's impact. The wounds caused by non-penetrating rounds, called Blunt Trauma, are fully discussed.

Smoke: A common factor on many battlefields, Smoke provides vital protection from the enemy during dashes across streets and open areas, towards hostile positions, and during retreats. The full effects of Smoke are explained including the duration of Smoke clouds generated by Smoke Grenades, the effects of wind on the cloud, and the partial visibility possible while the smoke clears.

Blind Fire: The standard response to enemy Smoke screens, Blind Fire (firing without being able to see the target) can also be vital in house-to-house fighting, when pinned by enemy fire, or providing harrassing fire against unseen opponents.

Among the other sections included are: Ballistic Accuracy; Weapon Reliability and Weapon Damage; the Three Round Burst; Explosive Ammunition; Permanent Disabling Injuries; Effective Minimum Arc; Optical Scopes; Spotting; Cover Generation; Large Scale Battlefields; Leadership; Ground Burst Explosions; Mines and Traps; Time of Flight; Evasive Action; Recoil Recovery; Off Hand Fire; Free Actions; Skills; Training; and Experience.

The Revolution in Game Design continues!



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