

Rolling Hot

A Rule Appendix for Silent Death (copyright Iron Crown Enterprises) based on the Hammers Slammers books by David Drake.

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Introduction

Set in a future where the military strength of independent and semi-independent planets is often supplemented by expensive mercenaries, David Drake's work has been accredited a classic by some. The books - the eponymous Hammer's Slammers and its adjuncts (they can't be sequels as, chronologically, they all fall between the first and last stories of the original book) - describe the environment in Drake's dense, violent, 'no-frills' way that makes them, for most people, a hard, gritty read with his war experience in Vietnam coming through loud and clear.

So the 'Slammers Universe' has the advantage of having been written by someone with actual, recent (relatively speaking, in armoured warfare development terms) combat experience, and it shows. Having said that, many have noted details which, at first sight, seem incongruous in modern AFV's.

Despite the usual comment about fantasy and SF games that enthusiasts of these periods have an 'easy' time of it (because of the perceived lack of research required), I have spent the last month reading and re-reading the books, making notes and constructing rule systems based upon my findings.

Very little extrapolation went into these rules and notes but I did manage to ease out a wealth of descriptive detail that the casual reader might miss - I certainly did first time round.

- **Vehicle Descriptions**

Hammers Slammers Regiment

Hover Tanks

These are smooth hulled, rounded vehicles with, cast iridium hulls. Grey in colour with low, flat turrets they measure out at around 11m long by 4.8m wide. The skirts beneath the hull are made of thick steel and form a plenum chamber around 1.2m high, with the body above that rising a further 1.5m with steps cut into skirt sides for foot holds. The single crew person turret itself is around 1.2m high, 5m long and 3.5m wide and heavily sloped and fitted with stowage basket at rear for personal gear stowage. The Driver's position is central at the front, beneath the turret front with an access hatch and vision blocks (the crew complement of a standard tank is 2 persons). The turret has a cupola with vision blocks on the roof for the commander/gunner with a 2cm Tri-barrel Powergun (a weapon firing explosive plasma from plastic, disk shaped, ammunition with a very, very flat trajectory). This is fitted on a ring, with the 5000 round magazine feed coming up through its swivel mount. There is a conical shaped Sensor array on roof of the turret behind the (central) commanders hatch.

The Tank's Main gun is a short barrelled (3m long) 20cm Powergun - like the cupola mounted weapon but bigger in scale: The Tank carries 800 rounds, with 20 rounds of main ammo in ready bin. These 20 rounds can be fired in as many seconds but if this rate of fire is kept up, barrel damage is likely to occur. This weapon is highly effective against armour, and - as the plasma 'bolt' explodes on impact - is effective against most other targets, however it is not so effective against bunkers etc. as it has limited penetration: it tends to explode on the first thing it hits and so the 20 shot, ready round magazine is used to fast fire the weapon at targets with some 'cover' to eat away at the defences.

The tanks are powered by a fusion power plant at the hull rear which lifts its 170 tonnes mass on eight armoured fans (hence the nickname 'Blowers') with shielded intakes in the upper hull at speeds of up to 120 kph on paved surfaces. Tanks hover only centimetres above the ground using 'ground effect' but are too heavy to cross open water.

They are defended against infantry close assault and 'Buzz-bombs' - hand held RPG style weapons fired from close range - by strips of explosive armour which can be set off automatically by radar or by command positioned along the sides of the vehicle.

The tanks carry an extensive Artificial Intelligence, Communications and Sensor suite including items like Ground Penetrating Radar and Laser Designator Detectors. The AI Unit not only helps out with targeting information it also communicates with centralised, regimental computer systems to co-ordinate fire control, enabling - by linking up the regiment's vehicle Tri-barrels - the creation of a virtually 'water-tight' no-fly zone above any given unit. This protects them from anything at all in the air (anything smaller than a meteorite, that is...) removing the threat of both air attack from conventional and rotary wing aircraft, and simultaneously doing a fine job of knocking out virtually all incoming artillery shells. The system can be overwhelmed by sheer weight of fire, but it takes a serious, intense barrage to achieve this.

Other weapon systems include a three Barrelled anti mine launcher at the front of the vehicle. This launches an explosive net that - 'Bangalore Torpedo' style - blows up a 500m long swathe of mines as wide as a tank. Some tanks also carry a pair of 'Penetrator Rockets' mounted at the rear of the vehicle for firing down into subterranean structures.

Each platoon of four tanks has a dedicated Command Tank to oversee communications etc. this is similar to a standard tank but... It features the same hull but with the armour thickness reduced from the inside to make more space for one extra crew member - the specialist Communications officer - inside. There is an extra side hatch added in the slightly larger turret and the mine clearing equipment and penetrator rounds are not usually fitted. The turret is fitted with two cupolas with hatches side by side so that the extra turret crew member - the Platoon Commander - has his or her own hatch. There is a more extensive array of roof mounted sensors but only one Tri-barrel, mounted on right cupola. The tanks carries a reduced, main gun ammo load of 400 rounds and weighs in at 150 tonnes.

Combat Cars

These are hover vehicles, similar in nature to the tanks but rather less massive. They weigh 30 tonnes and are made of a ceramic and iridium composite. Slammers vehicles are finished in an uncamoouflaged 'Panzer Grey' (they are in fact often referred to as 'Panzers'), as, in fact, are their personnel, who wear plain khaki fatigues under segmented, ceramic body armour. The vehicle is curved in shape, like the tank, being a cross between a very smooth WWII 'Hannomag' and a running shoe shape, with a blunt bow and an open back with one driver up front and central, followed by the fusion bottle power source and then three gunners in the fighting compartment at the rear.

The vehicle is 7m long by 3m wide at base, tapering to 2m at top, the only protection above the open fighting compartment is the Splinter Shield - a Beryllium Fishnet mounted 1m above the fighting compartment on steel stakes but usually full of personal baggage this will stop shell fragments. Although this seems a poor idea at first, when viewed in context it makes sense: it gives the three crew (with their three, gun shielded, pintel mounted, 2cm Tri-barrels) an exceptional view with little fear of attack from above. Anything small enough or close enough to be thrown in at the top should be stopped by the Splinter shield and anything bigger should be knocked down by the unit's air defence. The Combat Car features the same strips of explosive armour for anti-personnel and RPG defence.

Lifted by 12 fans and much lighter and a little faster than the tanks, the Combat car can cross open water and can raise itself on thrust alone to over a metre from the ground to clear terrain. The rear floor of the vehicle is usually covered in ammo boxes for the three tribarrels and Gunners can use the vehicles (rather less extensive AI unit) to slave guns to each other's control if they take crew casualties.

A Command car version also exists with a fully enclosed rear body, a single Tri-barrel on roof and a rear ramp. Weight is 34 tonnes. It features an extra sensor array on the roof and extra radar mines.

Artillery support

The Slammers have two pieces in their inventory:

A 20cm Rocket Howitzer, based on a Tank chassis with a large, boxy fully enclosed, ceramic and iridium composite turret big enough to hold an eight man crew...

And a smaller 15cm Rocket Howitzer, based on a Combat Car chassis, with a big enough turret to hold a six man crew.

Other Vehicles

The howitzers are supplied by an Ammo Hauler, based on Combat Car Chassis. Various rear bodies including flat bed, tipper and container backs are also used.

A Tactical Operations Centre is used at Regimental HQ - usually a Command Car Chassis with the engines having been removed.

Flat bed transporter. There are two of these - the Tank transporter is based on a Tank Chassis and the Combat car transporter based on a Command Car Chassis. Both vehicles are articulated with a flat back which is a GEV hover trailer and feature cranes for the hauling of the vehicle.

There is a Combat Engineer Vehicle, based on a tank chassis. This mounts a 30cm short range howitzer in the boxy body capable of elevation but only limited traverse. A number of devices may be fitted to the front as the situation dictates but standard fit is a dozer blade or a box containing multiple anti mine net launchers.

Light Vehicles

The Slammers use no APCs as such, however they employ two non armoured hover vehicles for the movement of infantry and their support.

Jeeps. These are small, 2-3 man vehicles, saucer shaped and made mostly from ceramic composites with a thin skin of steel. Battery powered, they have three fans mounted triagonally with an unshielded tribarrel to the right hand side, fired by the passenger (or the driver at a pinch). The rear seat can be empty or the vehicle can be fitted with a semi-auto 6cm mortar. Jeeps are in universal usage and - outside of Slammer's use - they are often fitted with such things as an extra Tri-barrel, a rack of 8 buzz-bombs or a 5cm hypervelocity powergun.

Skimmers. These are the Slammers' answer to individual infantry mobility. They are one man vehicles with a small pair of fans, a small skirt and no armour looking like a cross between a 'Wet-bike' and a skate board. Made from composites and powered by battery (charged up, usually, from the power unit on a tank or combat car) they are capable of independent flight with a ceiling only governed by combat necessity - though in practicality they stay in Nap of the Earth mode like all of the other vehicles. They have moveable position handlebars to enable them to be ridden standing up, sitting down or lying almost prone. Weapons - usually buzz-bombs - can be clipped to the bodywork but firing from them is tricky - especially when moving.

Slammers Infantry

These wear body armour and carry Powergun sidearms. They ride Skimmers into combat and usually dismount to fight. Other weapons carried might include grenade launchers and Buzz-bombs.

Other Unit's Vehicles and Weapon Systems

The Slammers' opponents range from indigenous primitive populations, with no projectile weapons whatsoever, through low tech farm worlds, to high tech, planetary standing armies and other Merc units. In general, only a few of their Mercenary opponents are as well equipped, and no one else comes close. Standing Armies might fight with conventional weapons (ie the sort of things we have today, really), and use

Wheeled or tracked vehicles - Tanks, APC's, jeeps and Tank Destroyers; while other Merc units might favour Hover vehicles with Lasers, Gauss driven Rail Guns or CAP (Combustion Assisted Plasma) weapons on vehicles, with Powerguns or flechette weapons as sidearms.

Weapons - Types, Ranges, Hit Dice and Damage Types

WEAPON TYPES		ATTACK DICE	RANGE INCREMENTS			DAMAGE	
INFANTRY WEAPONS		*=(ADD ADB)	SHORT (+1)	MED	LONG (-1)		
Musket		2D3*	0-1	2-3	4	HIGH/LOW/LOW ‡	
Conventional Side Arms		2D4*	0-1	2-3	4-5	MID/LOW/LOW ‡	
Medium Machine Guns		2D6*	0-2	3-6	7-9	MID/LOW/LOW ‡	
Heavy Machine Guns		2D8*	0-3	4-6	7-12	MID/MID/LOW	
Power Gun Side Arms		2D6*	0-3	4-6	7-12	HIGH	
Grenade launchers/Coil Gun		2D6e*	0-1	2-3	4-5	HIGH	
Buzz Bombs		2D6e*	1	2-3	4-5	HIGHx2	
Flechette Side Arms		2D4*	0-1	2-3	4-5	HIGH/MID/LOW ‡	
Flechette Machine Guns		2D6*	0-2	3-6	7-9	HIGH/MID/LOW ‡	
Infantry Laser		2D6e*	0-2	3-5	6	LOW	
Cone Bore Side Arms		2D4*	0-3	LOS - Treat as Medium range		MIDx2/LOWx3 ‡	
DIRECT FIRE SUPPORT WEAPONS							
Tri-Barrel Power Guns		2D8*	LOS - Treat as Medium range			HIGH	
Vehicle Point Defence		3D4	0 - Treat as Medium range			ALL	
Medium Lasers		2D6e*	0-4	5-9	LOS	HIGH	
Guided Missiles		3D6e	Lock on range 18 Hexes			HIGH	
5cm RF Guns (Conventional)							
HE	2D6*	1-4	5-9	LOS	HIGH/LOW #		
AP	2D6e*	1-4	5-9	LOS	LOW/HIGH #		
3cm CAP Guns	2D8*	1-12	LOS - Treat as Medium range		LOW/HIGH #		
Coil Guns	2D6e*	1-4	5-9	LOS	HIGH/MID #		
Medium Rail Guns	2D8*	1-6	7-12	LOS	LOW/HIGH #		
Calliope 8 Barrel 3cm PowerGun	2D8*+7	LOS - Treat as Medium range			HIGH + 7		
Twin 3cm Power Guns	2D8*+1	LOS - Treat as Medium range			HIGH + 1		
2cm Cone Bore	2D6e*	1-12	LOS - Treat as Medium range		LOWx3/MIDx2 #		
3cm Gatling Power Guns	2D8*	LOS - Treat as Medium range			ALL ☐		
5cm HV Power Guns	2D8*	LOS - Treat as Medium range			ALL		
INDIRECT FIRE SUPPORT WEAPONS							
		DICE FOR IMPACT			MUNITION TYPE		
		ON TARGET	NEXT HEX	2 HEXES	CLUSTER	HE	SELF FORGEING (1 TARGET ONLY)
Mortars		3D6e				HIGH/ LOW #	
15cm		5D6e	3D6e		ALL/NILL #	HIGH/ LOW #	NILL/ HIGH #
20cm		6D6e	4D6e	3D6e	ALL/NILL #	HIGH/ LOW #	NILL/ HIGH #
22cm		7D6e	5D6e	4D6e	ALL/NILL #	HIGH/ LOW #	NILL/ HIGH #
DIRECT FIRE MODE WITH AP ROUNDS		*=(ADD ADB)	SHORT (+1)	MED	HIGH (-1)		
15cm		2D6*	1-6	7-12	LOS	LOW/ALL #	
20cm		2D8*	1-6	7-12	LOS	LOW/ALL #	
22cm		2D10*	1-6	7-12	LOS	LOW/ALL #	
TANK GUNS							
20cm Power Gun		2D8*	LOS - Treat as Medium range			ALLx2	
15cm Power Gun		2D6*	LOS - Treat as Medium range			ALLx2	
15cm CAP Gun		2D6*	1-12	LOS -Treat as Medium range		LOW/ALLx2 #	
Heavy Lasers		2D10*	1-7	8-12	LOS	HIGHx2	
Heavy Rail Guns		2D6e*	1-7	8-12	LOS	LOW/HIGHx2 #	
Notes	*= add Attack Dice Bonus	☐ = if ANY doubles are thrown: double damage	‡ Range Dependent Damage		# Varying Damage: Against Infantry & Softskins/ Against Armour		Self Forging rounds pick the single CLOSEST Target, then the BIGGEST Target

Missiles, Smart Missiles & Buzzbombs

- Definition

Buzzbombs are small, RPG affairs, fired from the shoulder to targets in direct line of sight. They have no guidance. Essentially, these fire as per any normal direct fire weapon using the gunner's skill as an Attack Dice Bonus.

Guided Missiles are larger, usually fired from shoulder launchers (though they can be vehicle mounted) and have some form of guidance system. Essentially, these fire as per Rockets in the Silent Death system. The gunner's skill (with some additions) is used as a lock on requirement - a D12 is thrown against this skill (see below). Each missile - on the basic model - rolls 3D6e to hit and for damage, the result being HIGH.

- Guided Missiles and their Guidance Systems

To hit with a Guided Missile, bowl under the firer's Gunnery Skill with a D12 but add 1 to his gunnery skill for each friendly unit within 3 hexes off his intended target, or each sniper within 6 hexes of his target. The maximum addition is 4 so units five and beyond don't add to his score. Missile - like rockets in Silent Death - are fired early on (Phase 1), hit at the end (Phase 4) and have to overcome defensive value with their dice (3D6e per missile, maximum of two missiles per turn on vehicles, usually one per turn with shoulder launched missiles).

Missiles, if they "hit" only do damage, however, if they get past the...

Point Defence

- There are two types of PD.

Firstly there is the waist mounted, **Radar or Command Detonated Reactive Armour**. This is directionally dependent and can be used against adjacent units (command detonated) or against **adjacent units, Missiles** or **Buzz-bombs**, directed by the vehicle's Sensors/Artificial Intelligence unit.

These can also be used as command detonated: for this, use the stats on the weapons chart, check off an ammo blip for each round expended (as many as is required can be used at any one time). They do have a range of 0, though, so your target had better be swarming over your vehicle...

The second type of point defence is '**Overwatch**' against **High Trajectory Artillery Shells** and **Mortar Rounds** and with an additional use against **Guided Missiles** (or, I suppose, anybody stupid enough to be flying aircraft or helicopters in the area).

Using Point Defence

- **RCDRA Point Defence**

For Auto firing, the AI unit is set on Auto (it is assumed to be in this mode throughout the game unless otherwise stated) and any enemy infantry unit (or vehicle Skimmer sized or smaller) that enters or moves into the vehicle's hex OR any Buzz-bomb or Missile that enters into the vehicle's hex (ie if it "hits" the vehicle) activates the units. Each enemy unit (containing any number of persons); or Buzz-bomb entering/moving forces the AI unit to make a response roll to hit. Note that the fire affects anything and everything entering the vehicle's hex at that moment - friend or foe - as well as the intended target.

As any Missile or Buzz-bomb hits the vehicle (or enemy unit [see above] enters the hex) this causes the AI unit to make a roll. Use 3D4 (as per the **Weapons Chart**) and refer to the chart below. Ignore vehicle and target speeds and if the Strip exceeds the Defensive Value of the target (see below) a hit has been achieved, and the damage (ALL) applied to the target. Apply the same to hit roll against any other unit or vehicle in the adjacent hex and apply any damage that results. PD always attacks the least threatening target first and threat is determined by distance - furthest first.

For Example: Three Buzz-bombs are fired at a Tank, at ranges of 0 hexes, 2 hexes and 5 hexes ranges respectively. Through bad luck, all three devices will hit the Tank at the same spot (ie the same hex facing). The tank has only 2 pips of RCDRA Point Defence on that location and it selects it's targets in this order: Furthest first - The Buzz-bomb fired from 5 hexes; then the Buzz-bomb fire from 2 hexes are attacked. Three D4 are bowled for the first hit and a 6 is achieved: the first Buzz-bomb is hit and destroyed. Next the Buzz-bomb from 2 hexes - a 7 is needed and another 6 is rolled this Buzzbomb gets through. Lastly the Buzz-bomb fired from 0 hexes. As it only had three pips of PD, the last missile gets through as well. Total result - two hits from Buzz-bombs.

Hitting Buzzbombs & Missiles with RCDRA Point Defence	Defensive Value
Buzz-bomb fired from 0 Range	9
Buzz-bomb fired from 1 Range	8
Buzz-bomb fired from 2 Range	7
Buzz-bomb fired from 3 Range	6
Buzz-bomb fired from 4 or 5 Range	5
Missile fired at any Range	8*
* Add to dice roll any unused Overwatch rating on that vehicle - ie add +1 for an unused Tri-barrel	

All Buzz-bombs require 1 point of damage to destroy. Remember that Buzz-bombs are dealt with **one at a time** - i.e. each uses a pip of PD ammunition even if they arrive at the same point in the same phase.

Because infantry and other vehicles are larger targets and easier to hit, at range 0 (the only range that activate the PD systems) **add 6** to the "to hit" roll and ignore the speed chart (compared to buzz bombs they ain't travelling fast enough to worry the automatic systems)

Similarly, in phase 4 when Missiles arrive, they are dealt with like Buzz-bombs, ie one at a time and each uses a pip of ammunition even if they arrive at the same point in the same phase. Missiles are also destroyed with just one hit.

The only major differences between Buzz-bombs and missiles is that missiles have to be locked on first; they have a longer range and can be fired at a non line of sight target and from vehicles, they can be fired in pairs per launcher, the dice of which are thrown together as one "hit" if they both get through the PD. The PD roll made against missiles is at a fixed number - 8 - irrespective of range, however, any unfired Tri-barrels or other systems with an Overwatch rating can have their Overwatch rating number (see chart below) added to the first PD roll, though not subsequent rolls. Although Line of Sight might not be achievable, missiles always hit on the facing side as *if the gunner firing them had line of sight*.

For Example: After a successful lock on, two Missiles are fired from a launcher at a Maus Tank. They "hit" in Phase 4 but PD rolls are made against them both. The Maus has two remaining PD pips covering the area where the missiles would impact. The first one is attacked with 3D4 +1 as the Maus's Medium Laser has not fired in this turn. $9(2+3+4)+1 = 10$ is the result: the first missile is destroyed. The second missile is bowled against: result = 6 but no plus one (the laser has now fired). This is not enough and the missile hits, bowling 3D6e and achieving $8(6+1+1)$. This is a hit, though not a turret hit, and damage is HIGH = 6. Probably doesn't even scratch it...

• Overwatch Point Defence against Artillery Rounds

Some fast acting, AI controlled weapons on vehicles may be used for Overwatch.

These can be used against incoming artillery shells. Weapons assigned to fire at targets during a turn, or which have been used to add to the PD against a Missile attack (see above) however, *cannot* be used on Overwatch against artillery.

Overwatch against Shells uses any suitable, un-used gun systems and generates a generic, cumulative factor, adding all of the available vehicle mounted weapons plus a base figure which accounts for off table weapons and satellites systems (if any), plus the technology rating of the unit's native Command Structure etc. As mentioned above, using vehicle mounted weapons like this is dependent on them being available (i.e. not already used this turn).

Only some weapons are rated as suitable for Point Defence Overwatch: all are vehicle mounted (or similar) and each has a rating:

Weapon Types and their Overwatch Rating	Rating
Any Tribarrel Powergun or guns mounted on a vehicle	1
Any Medium Laser or lasers mounted on a vehicle	1
Twin 3cm Powerguns	2
8 Barrelled Calliopes	3

Note that vehicles with multiple tribarrels - as in combat cars - lose their overwatch rating if **ANY** of the tribarrells are used or destroyed (but not if a crew member is killed as they can be slaved together).

Added to this cumulative number, the off table rating might range between 0 and 10. For example

Unit's Overwatch Bonus (added to totals from chart above)	Rating
Local Indigenous populations	0
Mercenary units using mostly Lasers	1-2
Well equipped Mercenary units using mostly Lasers	3-4
Mercenary units using mostly Calliopes	5-6
Well equipped Mercenary units using mostly Calliopes	7-8
Slammers Units or other Merc units using Tri-barrels	9-10

A total is made of the Off Table rating and any local weapons available. **'Available' is defined by simply not having fired in that turn in Phase 3 or against a Missile in Phase 4.**

For Example: a well equipped Mercenary units using mostly Lasers for Overwatch with local units nearby might be a rating of 4. On table they have six vehicles with medium lasers mounted and a Twin 3cm Powergun. As 2 of the lasers had fired this turn, 4 of the six lasers (4 points) and the Power Gun (2) were available for Overwatch making 6 points. These are added to the Off-table Overwatch of 4 making a score of 10 in total.

2D6 are then bowled (for standard AI units) and their combined score is removed from the Overwatch total. This final figure is the number of shells that are stopped. As to **which** shells are stopped, these are removed in the following order:

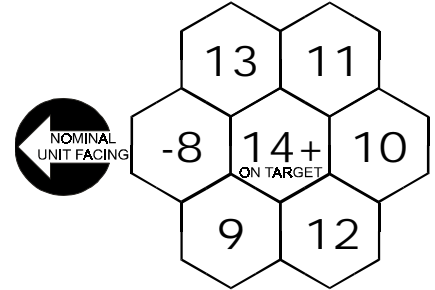
- Off Table First, On Table Last,
- Biggest shell size First, Smallest Last
- Random

For Example: the unit above's Overwatch total is 10. 2D6 are bowled making a total of 7. $10-7=3$ so 3 Shells have been stopped. Since 7 shells were fired in total, the 4 are removed and the other 3 hit. Deciding which 4 are removed works like this. Of the seven fired 5 came from off table artillery and two from on table. The off table were two each from 20cm and 15cm

howitzers plus a mortar round, and the on table fire came from a 22cm artillery piece and another mortar. The four that are removed are all Off Table fire (Off Table First, On Table Last) and are the howitzer rounds (Biggest shell size First, Smallest Last). What gets through is the off table mortar, the on table mortar and the on table 22cm artillery piece.

All shells that land are first bowled to see where the shell lands:

Bowl a D6 and add this to the Forward Observer Skill of whoever is spotting - this is usually the Gunnery Skill. There are two exceptions to this: if the artillery is firing at a prearranged spot and time use the artillery units gunnery skill **minus 3** - this is lowered to reflect the lack of an FO. Note that Artillery firing at targets that remain under observation increase their chance of hitting a single target area hex with each successive round that lands by **plus 3** until to allow for corrected fire. **On table artillery** that are in the luxurious position of **having Line of Sight on their targets** may use their uncorrected Gunnery skill and may increase their accuracy with each progressive shell that lands, as above. Essentially they are performing their own FO.



Nominal unit facing is defined as the direction a vehicle is pointing in or the closest edge of the table or some other nominated point - it doesn't really matter as long as it's agreed before the bowl is made. Remember shells that don't land - i.e. ones that are taken out by Overwatch PD - **do not count** towards corrected fire.

Unit Definition

A Unit is an individual vehicle and it's crew or a grouped number of figures.

For Example: A Tank and it's 2 (or more) crew are a unit. A Combat car and it's 4 crew are a unit. An APC and its crew are a unit, as is the (separate) unit of infantry in the back. 2 men with a Mortar are a unit. 6 Infantry in a squad are a unit. A Jeep and it's 3 occupants are a unit. 5 One Man Skimmers are a Unit

Also note the following:

- No two vehicles bigger than Jeeps may occupy the same hex.
- No more than 2 Jeeps or Two infantry units in a hex.
- No more than 8 infantry in a unit.
- No more than 5 Skimmers and Infantry crew in a unit.
- No more than 1 vehicle and 1 infantry unit in a hex at the same time.
- Infantry Units have individual weapons assembled into one or more groups and these may fire at individual targets, but no splitting off of individual riflemen (unless they are predefined as sniper units, of course).
- Infantry units may not split across a number of hexes but, other than that, apparent direction of individuals, weapons or turrets is unimportant (after all, this is mostly a Tank game, *not* an Infantry game). The only directional facing that is important is the direction of vehicles as this determines the firing arc of hull mounted, driver gunned weapons.

Units may pass through other units on the same basis as multiple occupancy of a hex - ie an infantry unit may pass through anything, but a tank cannot pass through another vehicle hex (though jeeps can pass jeeps and infantry).

Firing at Multiple targets

Infantry Units (being essentially 'Multi-crewed') do not pay a penalty for firing two or more weapon types, of course. Vehicle Gunners (i.e. Tank Commanders) who try to fire two guns at once incur penalties. A **Minus** on each to hit role (not damage, just to hit) for both weapons equal to the **commander's gunnery skill minused from 10**. If the commander then fires at **separate targets** (no doubt with the help of his vehicle's AI Unit) this minus **doubles**.

***For Example:** Danny Prichard tries to fire both his Tri-Barrel and his 20cm main gun at two separate targets. His Gunnery skill is 8 so he removes (10 minus 8 = 2, doubled for separate targets) 4 from his chance to hit with each weapon.*

*Joachim Steuben tries to fire both his Tri-Barrel and his 20cm main gun at the **same target**. His Gunnery skill is 9 so he removes 1 (10 minus 9 = 1,) from his chance to hit with each weapon.*

The Effect of Vehicle and Unit Speed on a Target's Defensive Value

Most of the legendary 'invulnerability' of Mercenary units like the Slammers comes not from the armoured vehicles Iridium armour, but from their speed - anything up to 110kph for the Tanks and 120kph for the combat cars, with infantry on skimmers travelling - in the open at as much as 170kph. In consequence speed has a big impact the chance to hit an intended target through reduced reaction times and shorter opportunities to fire. Stabilised gun systems and AI Units on virtually all vehicle systems helps, of course.

Speed Chart Affecting your chance to hit - cross reference for modifier to hit target

		Target's Speed							
Firer's Speed		0	1-2	3-4	5-6	7-10	10-12	13-15	15+
	0	0	-1	-2	-3	-4	-5	-6	-7
	1-3	-1	-2	-3	-4	-5	-6	-7	-8
	4-10	-2	-3	-4	-5	-6	-7	-8	-9
	10+	-3	-4	-5	-6	-7	-8	-9	-10

There are other minus's to bear in mind, however, depending on what type of weapon is being fired on what sort of mounting. This is achieved by shifting bands on the chart above.

- The chart is optimised for **Turreted Main Tank Guns** so they fire on the **CHART AS IT STANDS** and suffer no further minus.
- **Infantry Weapons**. These react fast and shift **TWO BANDS TO THE LEFT**. The only thing to bear in mind is that and weapon mounted in a skimmer has only a Frontal Arc.
- **Direct fire support weapons**, assuming that they are mounted on some form of tripod or on a vehicle cupola or, in the case of the Calliope, in a specifically designed, fast rotating turret, shift **ONE BAND TO THE LEFT**.
- All **Indirect fire weapons** that are used, er... indirectly, obviously aren't affected (they're lucky to hit anything anyway...), but when used in the direct fire mode, turreted weapons fall into the same category as **Turreted Main Tank Guns**.
- **Non Turreted Tank Guns** mounted on a **Hover chassis** (i.e. Legion Tank Destroyers) shift **ONE BAND TO THE RIGHT**
- **Non Turreted Tank Guns** mounted on a **other chassis** (i.e. Tracked or wheeled) shift **TWO BANDS TO THE RIGHT**

***For Example:** a Legion Tank Destroyer travelling at a speed of 6 wants to fire its main gun at an APC with a defensive value of 7 travelling at a speed of 7. Consulting the chart above, the bowl made (2D8 plus 1D8 ADB - 5, 4 and 4 =) 13 has a minus of 6 applied for speed. Result 7: A HIT. **EXCEPT** that the band shift to take account of the mounting of the Tank Destroyer's main gun - hull mounted on a hover chassis - has yet*

to be applied. This shifts the table one band to the right, making the result -7 instead of -6. This makes the overall result a 6 instead of an 7 - result: a **MISS**.

The moral of all this is fire tracked tank destroyers from hidden, shoot and scoot positions in the Hidden weapon fire phase (and then bugger off).

Terrain and its effect on Fire & Movement

• Firing

Cover is defined by the contents of a hex Generally this is expressed as a minus to hit, as with the speed modifier chart, above.

However the degree of cover varies with the kind of weapons fired at it as they have differing penetrative powers.

Cover and its effect on different weapon types			
Weapon Type Cover Type	Powerguns and Lasers	Overhead Artillery rounds - Cluster and Self Forging only	Other weapon types or ammunition types
Open Ground	0 - no effect on fire	0 - no effect on fire	0 - no effect on fire
Soft Cover - light trees	-2*	0 - no effect on fire	-1*
Dense Woodland	-3*	-1	-2*
Hard Cover - buildings with walls or roofs that block fire	-3*	-4 (for roofs only)	-3*
Hull down Tanks or other vehicles or dug in Infantry without overhead cover	-5*	0 - no effect on fire	-4*
Covering Fire - 4 to hit anything you cant see	*these minuses apply for each intervening hex (including the target's hex)		

• Suppressive Fire

Firing at a hex that apparently has no opponents (they might be hiding) incurs an additional penalty to hit of -4.

• Movement

A vehicles **SPEED** is the number of hexes it traverses in a given turn. This is marked off in the appropriate box on the play sheet after movement. How far it moves is determined by how many movement points it has available and what it spends them on, as Terrain and Manoeuvring all use more points than just movement on metalled or paved roads in a straight line. In the latter case - a paved, unobstructed, straight road, then units move as many points forward as they wish with the only limit being the movement points available - a vehicle with 10 movement points can move 10 hexes.

Terrain

Terrain is defined in the following ways:

- RP** Roads & Paths - also bridges
- FW** Fordable Water - smaller rivers, paddys, some marshland etc
- UW** Unfordable water - bigger rivers, deep lakes etc
- SH** Steep Hills & Skree Slopes - also very broken terrain
- SC** Scrub - low bushes and grasslands
- LW** Light Woods - lighter European woods
- HW** Heavy Woods - forests and jungle

Each vehicle type will have a movement cost for each terrain type which is the cost to enter a hex of this type. This - along with any manoeuvring costs - must be paid **BEFORE** the vehicle enters the hex. If it hasn't sufficient movement points remaining to allow this, then the vehicle chooses another direction of finishes its turn.

Turning on the spot

Turning one hex face costs the vehicles turn cost. To turn more than one hex face costs the turn costs plus a dice based tight turn roll.

Infantry

Infantry have two movement points although, in general terms, infantry move one hex per turn over most terrain types, including buildings and woodland. They pay no turn costs and terrain does not affect them much. The only exceptions are:

- **Roads & Paths.** An infantry unit may run on roads on paths at a speed of 2 hexes per turn, but they may do nothing else: i.e. no observing for artillery; no mounting or dismounting from vehicles; no firing (well, they can fire, but they won't hit anything). Or they can move at one hex per turn and fire, or mount dismount etc
- **Rivers.** Fordable ones can be forded, but no other actions can be carried out during the move (see above). Unfordable rivers are not within the scope of these rules.

Vehicles

These all have a maximum speed marked on their playsheets, however they suffer minus factors depending on terrain. However, they also have to be subdivided into types depending on their, er... locomotive system. See chart below:

Speed

RP - Roads & Paths, **FW** - Fordable Water, **UW** - Unfordable water, **SH** - Steep Hills & Skree Slopes
SC - Scrub, **LW** - Light Woods, **HW** - Heavy Woods

Most Vehicles...	Speed	RP	FW	UW	SH	SC	LW	HW	Turn Cost	Tight Turn Cost	Side Slip
Blower Tank	12	1	2	NP	3	2	3	NP	3	1D4 + 3	2
Combat Car	13	1	1	1	3	2	4	NP	2	1D4 + 2	1
Tracked Tank	6	1	2	NP	4	2	3	NP	2	1D6 + 2	NP
Tracked Light Tank	8	1	2	NP*	4	2	3	NP	1	1D6 + 1	NP
Wheeled APC	9	1	2	NP*	5	2	3	NP	2	1D6 + 2	NP
Wheeled Jeep	10	1	2	NP	5	2	3	NP	1	1D6 + 1	NP
Hover Jeep	13	1	1	1	3	2	3	4	2	1D4 + 2	1
Skimmer	16	1	1	1	2	2	2	3	1	1D4 + 1	1
Infantry	2	1	2	NP	2	2	2	2	NA	NA	NA
NP= Non Passable, NA - Not Applicable, *Unless amphibious, then cost 3											

Generally, moving backwards costs one point extra - in addition to any other movement costs.

For Example: a Blower Tank moving forwards whilst side-slipping (2 points) into light woods (3 points) will pay (3+2) 5 points to move one hex. Or A Combat car moving forwards through steep hills pays 3 points. A Tracked Tank, reversing (1 point) up a steep hill (4 points) makes heavy weather of it as it costs 5 points to enter the hex, thereby effectively reducing his speed to 1 Hex this turn.

Mines, Penetrators and Mine Clearing Equipment

There are three types of mines: Light, Medium and Heavy.

Mine Type	Intended Target
Light	Infantry; wheeled, un-armoured light trucks and jeeps
Medium	Hover Jeeps and Skimmers
Heavy	Tracked Tanks; Wheeled APC's; Hover Tanks and Hover Combat Cars

They are quite sophisticated and are designed to only be set off by vehicle signatures and ground pressures of their intended targets. However, over pressure - a vehicle of the class above - will usually set off mines.

***For Example:** An infantry unit or a light truck will only set off light mines in that hex, however a hover jeep will set off both light and medium mines, whilst a hover tank will set off any mines in a hex.*

Laying mines during play is not within the scope of the game, but mines are laid in designated hexes, prior to play - that is a hex is noted as being mined, with Light, Medium or Heavy mines, before game play begins.

• Mine Detection

Every time a unit moves into a mined hex, the opponent bowls a D6 (secretly).

Roll	Result
1-2	The unit fails to detect the mines and fails to set them off
3-4	The unit detects the mines in time and has the option to stop. If they stop then the unit may back up or go around the hex next turn. If the unit decides to carry on, then treat the result as a 5-6 roll - see below.
5-6	The mines go off, clearing the hex but possibly damaging the occupant(s) see chart below

• Mine Results

Mine Type	Damage		Special Notes
Light	3D6e	HIGH	Infantry units cannot move during the turn directly after setting off a mine. Use the standard defensive values of all units, including speed reductions.
Medium	5D6e	HIGH	Damage is done to vehicles on their thinly armoured underside. Minus 2 on Defensive Value to hit and minus 2 Damage Reduction (including speed reductions) based on the vehicles Front Primary Damage Track. Hits are taken on the PDT (F) and then on to the MHDT.
Heavy	7D6e	HIGH	As above, for Medium

• Mine Clearing & Penetrators

Get Princess Diana on your side...

Or... Anti Mine Nets

Some vehicles are fitted with mine clearing equipment which all operate in a similar fashion. The devices - Anti Mine Nets (AMN) - found on the Slammer's Tanks and some Combat Cars is a mortar firing a net in front of the vehicle which contains an explosive matrix. During Phase 5 (Fire Other Weapons) a vehicle commander (whose vehicle has travelled at a speed of 3 hexes or less) fires the AMN instead of firing any other weapons - that is, the AMN is the only weapon that the Commander can fire. The AMN covers an area 1 hex wide by 4 hexes long directly in front of the vehicle and, during Phase 6, it is detonated clearing all mines present, of all types, within those 4 hexes. This is a fairly full proof system and no dice rolling is required.

Penetrators

These are carried for use in scenarios which require serious, underground, bunker busting. They are fired directly into the hex that the vehicle is sitting in (so range and firing arc are both '0'). They are rocket propelled and have an effect usually determined by the scenario.

For Example: A mission objective may be to locate and destroy a hidden underground bunker or tunnel system. This complex is already marked on a (umpire controlled) map and, as a Tank (or other vehicle equipped with deep penetrating radar) drives over a hex with tunnels in it, they may be detected and a penetrator round deployed to destroy that hex's hidden objective.

Snipers and Revealing units

There are two sort of units that may be hidden at the start of a scenario: snipers and everything else. Sometimes whether these remain hidden or are revealed is dictated by the scenario. In other circumstances when a line of sight is achieved by an observing unit on the hex containing a concealed unit, bowl a D10 and consult the chart below adding the results.

Maximum range for observing non moving, non firing hidden units is 6 hexes.

If a unit fires, or moves then observation range is Line of Sight.

A bowl is made in any one of **TWO** circumstances.

1. When a unit moves within six hexes or less of a hidden unit. This roll is made by the hidden unit player (obviously extra, spurious rolls can be inserted here...)
2. When a hidden unit moves or fires. Again, the roll is made by the hidden unit player.

Note that a maximum of TWO rolls may be made against any one unit in a turn, in the two circumstances above.

Range 6 Hexes for observation non moving/firing. Range for Moving/firing target is LOS. Roll a D10, add +and - and check to see if revealed on a 5 or better			Minus for terrain hex of hidden unit - these are not cumulative			Plus For action of hidden unit - these are cumulative	
Unit Type	Scrub	Light Woods	Heavy Woods (or edge of)	Buildings	Large Cam Net	Each time Weapon is Fired	Each time Moves a hex or more
Sniper	-3	-5	-6	-6	NA	+3	+2
Infantry Support Weapon	0	-3	-4	-4	-4	+6	+6
Infantry Unit	-1	-3	-5	-4	-4	+5	+4
Jeep, Skimmers	0	-3	-4	-2	-6	+6	+6
Combat Car, Light/Medium Tank	Automatic reveal	-3	-4	-2	-6	+7	+6
Heavy Tank, Artillery	Automatic reveal	-2	-3	-2	-5	+8	+8

- Snipers

Other than being hard to see, and hard to hit, snipers have other talents. They count for spotting for missiles at an extra range of 6 hexes not 3 (as already mentioned). When they do damage, they only roll **Critical Hits**, irrespective of damage reduction. These are Critical Hit rolls only and no actual damage - ie the Critical Hit is enacted **but no box is ticked off**. All of these Critical Hit rolls occur on the damage track currently facing the sniper not on the Main Hit track unless... If the damage track facing the snipe has been destroyed by other fire and, from that angle, the sniper is firing through onto

the Main Damage Track then the sniper rolls Critical Hits on the main Track. Obviously, if the sniper scores high enough to hit the turret (on a turreted vehicle) the sniper may **CHOOSE** to hit the turret Critical Hit Chart, if the sniper wishes, but this is **not compulsory**.

Ramming, collision & Contact

Sometimes a unit enters a hex which technically it is not allowed to because it is full up with something else - a vehicle (see rules on stacking and passing through other units in **UNIT DEFINITION** on page 10. On other occasions a vehicle tries to deliberately run something over and - usually - the target wants to get out of the way. These events can happen at any point during the movement phase when vehicles try to occupy the same hex. So what happens?

- The three situations where this occurs are:
 - Vehicle of any sort (except skimmers) tries to run over infantry (or skimmers)
 - Tank or other large vehicle tries to run over smaller vehicle (ie a Jeep)
 - Vehicle tries to ram other vehicle of similar size (tank/combat car versus tank/combat car or Jeep versus Jeep)

At the relevant point during the movement phase, check the **Ram Hit & Damage Chart** below and bowl the two dice indicated then each unit adds it's **SPEED** to this dice roll - either **this turn's speed** (hexes actually moved) or - if it hasn't moved yet, **last turn's**. Add any terrain modifiers and then find a result. **Highest score wins**. A Draw is a LOSE for the rammer.

- If the '**rammer**' **wins** the target is **rammed** and damage is done (see **Ram Hit & Damage Chart** below).
- If it is a draw or the '**rammer**' **loses** then the **target** has **avoided the ram**. If stacking would allow multiple hex occupancy (ie if a vehicle tries to run over an infantry unit or a jeep) then the target does not move but avoids contact and the vehicle passes through without loss of speed. If the target was a vehicle that would not normally stack in a hex then either drop 2 movement points off of the rammer ("he swerved and almost hit me...") or move the target into an adjacent hex of the targets choice. Either of these two actions take place at the targets choice or if knocking movement points off of the (failed) ramming vehicle means that it doesn't actually reach it's target.

Ram Hit & Damage Chart	Bowl a:	Add to "target" dice roll if ram occurs on:		Dice used & Damage done to:
Unit Type		Exposed Trench systems	Forests	Target/Rammer
Heavy Tank	1D4	NA	0	3D12 : HIGH/MID
Other Tanks/ Combat Cars etc	1D6	NA	0	3D8 : HIGH/MID
Jeeps etc	1D8	NA	+1	3D4 : HIGH/MID
Infantry/Skimmers	1D10	+2	+2	NA

Firing at two units stacked in the same Hex

Sometimes, two units will be in the same hex (see rules on stacking and passing through other units in **UNIT DEFINITION** on page 10) and they will be fired upon. If this is the case, use the following rule to see who is hit:

If the weapon is a Direct Fire Weapon, firing a single, non fragmenting shot, then the firing player picks one of the two targets and fires at that one as per normal. The other target is not affected.

- **Example:** All Tank main guns; Direct fire artillery firing AP; Medium Rail Gun; 2cm Cone Bore guns; 5cm HV Power Guns; 5cm RF Guns firing AP, and 3cm CAP Guns; Indirect fire Self Forging & AP Artillery Rounds

If the weapon is a fragmenting or continuous fire weapon then both targets are fired at with one dice roll. If the dice roll hits neither target then tough luck, if it hits one of them then proceed as normal, if it hits both then both targets take the damage rolled.

- **Example:** Anything not mentioned above, including Tribarrels, Machine Guns, Missiles, Cluster Artillery Rounds

Hand to Hand Combat

Infantry that enter the same hex as other infantry with the intention of combat engage in Hand to Hand Combat. Add 2 to both side's to hit roll and 2 to their damage, irrespective of weapons.

PHASE CHART - Who does What and When	
Phase 1)	Off Table Artillery Firing and Guided Missile Phase Secretly Note firing of Off table artillery (how many shells, of what type launched and what target). Umpires will dictate what areas are spotted (or have been pre-nominated) for artillery fire in particular scenarios. Use best gunnery skill of closest unit with direct line of sight to target. Note targets for Guided Missile fires and attempt lock on. Fire Missiles.
Phase 2)	Movement Phase 1. Initiative Throw - <i>add any bonuses (see below)</i> . 2. All Movement by currently revealed vehicles or units, in alternative Initiative based order. 3. Reveal and move Hidden Units - units previously hidden are revealed as a repeat of the section 2) above: ie in alternative initiative order (usually, though, only one side has ambushing hidden units) 4. Attempt firing of RCDRA Point Defence where appropriate (ie when caused by enemy units moving)
Phase 3)	Fire Other Weapon Phase Fire Weapons from all units in the following order: 1. Hidden Weapons systems that revealed themselves in the previous phase (including Buzz-bombs and Direct Fire Artillery) Fire (in Gunnery Skill order if required) <ul style="list-style-type: none"> Attempt firing of RCDRA Point Defence where appropriate against Buzz-bombs. Calculate hit results of all direct fire weapons and any Buzz-bombs that penetrate any Point Defence. 2. Other Weapon systems (including Buzz-bombs Direct Fire Artillery) fire in Gunnery Skill order - repeat steps for section 2, above. 3. On table, Indirect Fire Artillery fire , in order (if required), in this phase, though their fire doesn't take effect until the next phase. The targets are noted (not much can be done about it at this point by the intended victim so secrecy is not required) but, again there may be Umpire input into what can be aimed where. Use best gunnery skill of closest unit with direct line of sight to target.
Phase 4)	Artillery and Guided Missile Results Phase Calculate Results of Missile Attacks first. RCDRA can fire again if required but any Overwatch additions must come from unused weapons. Calculate Results from Off-table and On table artillery are calculated together. Apply Overwatch Point Defence from unused weapons where appropriate. Determine where shells fell and work out who copped what

- Movement Order

The rules use a **Silent Death** style movement order. The two sides add their combined unit's Initiative Bonus to a D10 Dice Roll. Highest wins the initiative and alternate moves are made. Like later **Silent Death**, if one side has **DOUBLE** the number of (revealed) units, then that player moves their pieces in pairs rather than singly.

Alternative Movement Order Initiative Bonus Chart	
Elite Units	Initiative Bonus + 1
Command Units	Initiative Bonus + 2
Overall Command Unit	Initiative Bonus + 3
Named Commander	Initiative Bonus + 4 to 8
Plus Dice Roll (D10) - Highest Wins Initiative	