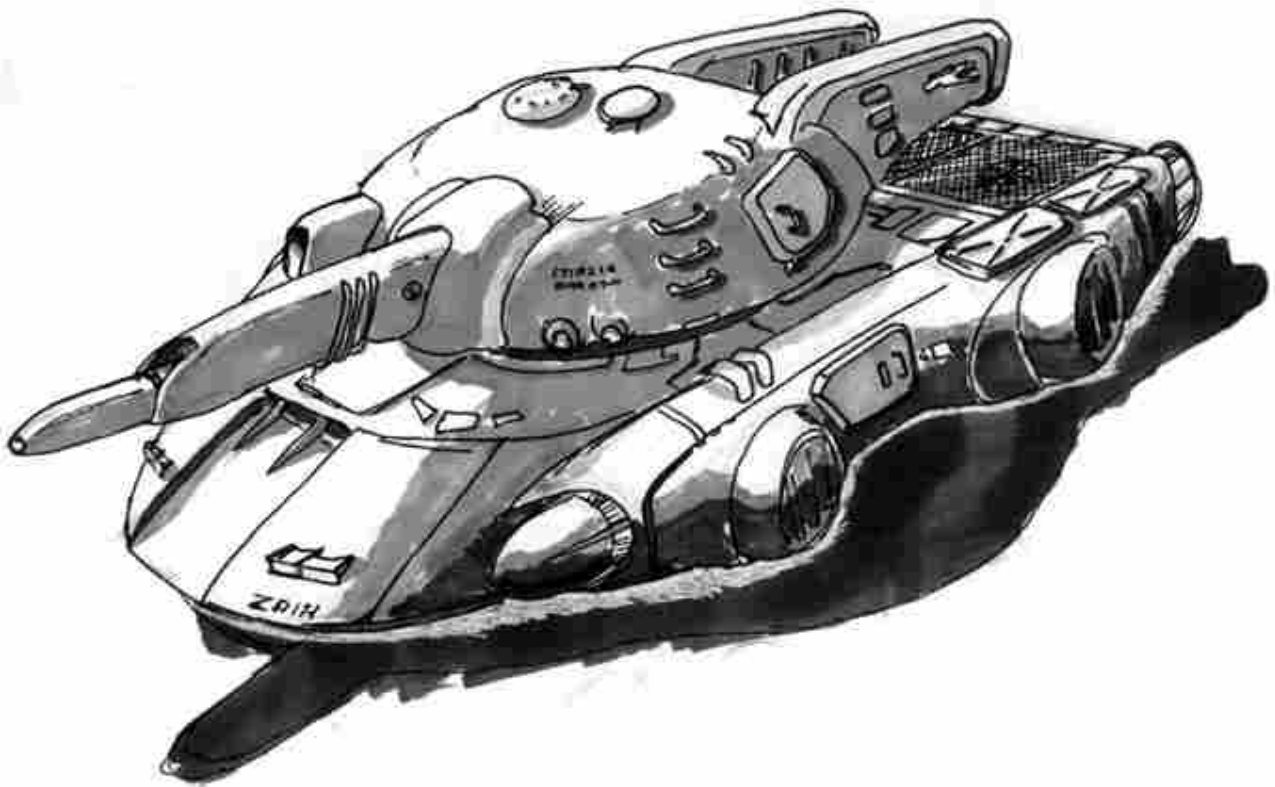


PLAN

A



VERSION 2.1

Divisional Level Planetside Operations in the Universe

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PLAN A

Divisional Level Ground Force Operations in the Universe

"If in doubt...we use Plan A – drop a GF Division on it"

Senator Cornelius, Martian Minister of War 3199-3205

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PLAN A

INTRODUCTION

This is a set of wargame rules intended to simulate actions between about one GF regiment equivalent a side, supported by divisional or even orbital forces where they would be available. It is possible to fight battles involving up to divisional size if you have enough players and time.

The smallest separately represented unit is the platoon or troop. This is shown on the tabletop by a cardboard base of the appropriate size, on which a suitable number of 1/300 or 1/900 scale models are mounted - the exact number per base can be varied to meet your own taste and financial resources.

It is even (just) possible to use 15mm or 10mm models – though the large size of the figures tends to distort player's perceptions of the scale of operations – so I don't recommend it.

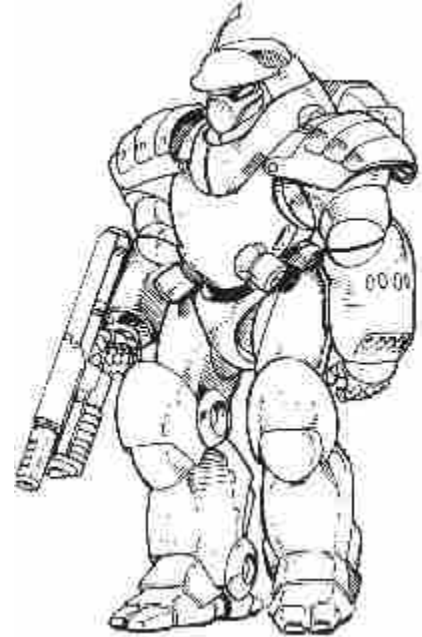
The area of the base represents the normal area the unit occupies when deployed for combat. Whilst this might impart a degree of inflexibility to the smaller units, the system of using these bases is necessary to create a higher speed of play, and the 'feel' of thinking and planning at regiment level.

It is important that players think of these bases as indivisible units, and to concentrate on the actions of the company as the basic unit of fighting and manoeuvring.

It is probably best to start small with these rules (as indeed it is with any new rules), and try out actions involving just one battalion. It is important to continually bear in mind the ground scale used with these rules. 1 cm to 100 metres is the recommended scale, and this is very small. If the models used were to this scale, then a tank would have to be about 0.25mm long, so the size of the models has very little relevance to the action. Players should be careful not to be misled by this and treat the models as if they were representative of the ground scale..

A great deal of emphasis is placed upon the umpire in these rules. The rules *can* be used without an umpire, but most of the refinements, and a lot of the 'feel' will be lost. Contrary to popular practice, there is no points system, since the forces used must be based on the scenario or general political situation, and placed within a realistic military context.

Planetside actions involving fully equipped GF divisions are rare – more often actions are asymmetrical – elements of regular GF attempting to defeat less well armed but numerous



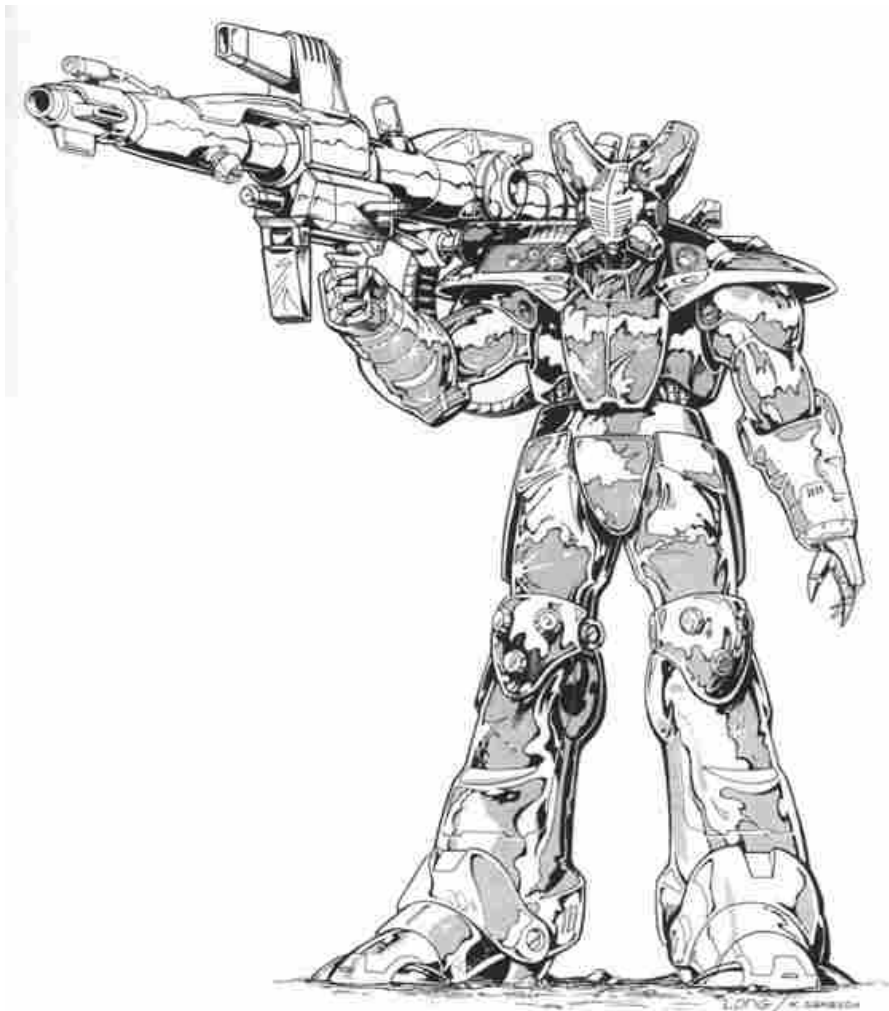
and determined rebels, criminals or terrorists. So for these rules the concept of an 'equal points battle is a nonsense. A guide to some typical scenarios is at the end of the rules.

These rules were not written with the intention of being applied 'to the letter', but simply as a set of guidelines for keen wargamers to fight high level SF battles of the type typical in The Universe campaign. The interpretation of the rules is therefore not fixed, but dependant upon the tactical situation you are attempting to simulate.

The rules are in two parts:

Part I is the bare bones with little or no explanation

Part II is the fuller explanation of the rules given in part I, with notes and examples, to try and put the rules in their proper perspective



PART I: BASIC RULES

1. SEQUENCE OF ACTION

1. Check that units can communicate
2. Update orders if necessary
3. Make calls for Support Weapon fire next turn
4. Locate targets
5. Calculate direct fire effects
6. Calculate Close support fire effects
7. Calculate support fire effects (ordered last turn)
8. Move units that are able to move.
9. Calculate close assaults
10. Check for demoralisation
11. Rally pinned or suppressed units

2. ORDERS AND COMMUNICATIONS

COMBAT ORDERS

Issue Combat orders: 15 minutes per company ordered, per main objective

Issue orders for movement only (ie. a non-combat move): 10 minutes per battalion

This time is **doubled** for Militia or other irregular troops or for units with incomplete comms nets.

TRANSMISSION JAMMING:

Whilst radio and data communications are of good quality and secure, they can be jammed.

Direct line of sight (LOS) communications can never be jammed.

If a Battalion HQ Ground Combat Vehicle or a specialist jamming unit is present, roll d10 per turn. Score 4+ and enemy non-LOS transmissions are jammed.

3. TARGET LOCATION

Roll 1d10 per company-sized unit (or equivalent) observing (0=0).

Target:	IN OPEN		IN COVER		DUG IN	
	Not firing	Firing	Not firing	Firing	Not firing	Firing
Vehicle Platoons / GF Armoured Inf Pltns						
1 - 2	3	2	5	3	6	5
3 - 5	2	1	4	2	5	4
6 +	1	0	3	1	4	3
Towed Guns and Infantry Deployed Companies						
1	4	2	5	3	6	5
2 - 3	3	1	4	2	5	4
4 +	2	0	3	1	4	3

Additions to the die roll:

OBSERVER IS:		TARGET IS:	
Moving	-2	Moving	+2
Militia Infantry pinned	-1	Non-tactical	+2
		Firing second time from same position	+2
Infantry suppressed	-4	Under CLOUD smoke	-2
Armour pinned	-2	Green troops	+1
Armour suppressed	-4	Veteran troops	-1
Veteran troops	+1	Under 500 metres	+2
Green troops	-1	Over 2000 metres	-1
Has SpySat Support overhead	+4	Over 5000 metres	-3
Has AIR Recce Support overhead	+2		
Has flyer or shuttle recce overhead	+1		

Maximum visibility will be defined by the umpire, but in most conditions on most worlds is normally from 2000-6000 metres.

In close country the maximum visibility is around 200-400 metres.

Satellite visibility might be affected by dense cloud cover or other meteorological conditions, as defined by the umpire.

4. EFFECTS OF FIRE

Troop Type	P = PINNED	S = SUPPRESSED
Regular Infantry or Militia	Cannot move. May fire and communicate	Cannot move or fire or communicate
Starship Marines	No effect	No Effect
GF Infantry	Half movement May fire and communicate	No advance May fire and communicate
Tracked / Wheeled Armour	Veteran may continue at max 5cm. All others may not advance. May fire and communicate	Cannot fire, but may communicate. Must withdraw at least 5cm
Hovertanks	Half movement May fire	No Advance May fire and communicate
Tracks / Towed Artillery	May not move. Dug in artillery may fire. Otherwise cannot fire. Can communicate	Cannot fire, communicate or move.
GF Artillery / CS Units	No advance May fire and communicate	Must withdraw out of fire swept zone Cannot fire but may communicate.

5. MAIN FIRING TABLES

(See annex at end for tables)

Close Support (CS), Anti Tank (ATGW) Missile and CS Artillery units attached to the formation (usually battalion) fire immediately after all direct fire has been resolved. They are 'called' by any subunit able to 'paint' an enemy unit and able to communicate.

They do not themselves have to be in line of sight of the target. CS fire does not have a beaten zone – it is specifically targeted at an illuminated enemy unit.

Units that can paint do not normally include the firing unit itself. It is most often front line infantry or armour.

Slave Fire: A Hovertank unit that has located a target that has not been located by another Hovertank unit may 'slave' the latter's fire control systems and direct fire on that target on their behalf, provided there is a clear line of fire. Villages and woods do not obscure lines of fire for this purpose. This option is only available to manned hovertanks, not robotic ones.

Bunching. Units can occupy less than their designated frontage, down to half the shown frontage. Typically this might be represented by a tank and infantry unit co-located when supporting each other. If the formation is denser than this (i.e. three or more units co-located) then they are **bunched**.

If five or more units are co-located they are deemed to be non-tactical.

6. ARTILLERY BEATEN ZONES

Fire zones:	Mortars	250m x 250m
	Artillery battery	500m x 500m
	RLS	1000m x 1000m
	Air strike (3-4 a/c)	500m x 500m
	Orbital Laser	1200m diameter circle

Space bombardments:

Cruiser	1200m diameter circle
Battleship	2000m diameter circle
Pacifier Strike (4 Pacs)	500m x 500m

NB: Fire zones for artillery can vary shape provided area remains constant.

Tactical Nuclear Weapons: ICBM or AIR Launched.

Total annihilation Zone = 1km radius (everything in this zone is destroyed) and crater formed.

Mass destruction Zone = 1km - 4km radius. All non-reinforced concrete buildings knocked down. Treat as Battleship strike

Severe Damage Zone = 4km - 8km radius. Roofs blown off. Treat as Cruiser strike.

7. C.L.O.U.D. SMOKE

CLOUD (Colloidal Liquids Obscuring Universal Detection) Smoke is effective at obscuring Radar, Infrared, Microwave and visible light spectra. It is usually deployed by shell or from canisters. Old fashioned combustion smoke (for example from burning buildings) has no effect on modern sensor equipment. In the rules, references to smoke mean references to CLOUD Smoke.

Tank CLOUD (from main armament) lasts one move (10 minutes), and is 5cm in diameter. Mortar, Artillery and missile CLOUD lasts one move and is 1cm frontage per gun/launcher.

Canister CLOUD lasts 3 moves (30 minutes) is 5cm wide by 5cm downwind in the first turn, growing by 5cm downwind for each turn.

8. MOVEMENT

(In centimetres / 100m)

Unit Type	Tactical	Non-Tactical
Hover	15	30
GF Infantry	10	20
SM in Space Armour	2	4
Light Hover	20	40
Heavy Tracked	6	20
Light tracked APC	8	20
Technicals	10	20
Deployed foot infantry	4	6
Lorries on roads	8	30
Lorries off roads	2	n.a.

Restrictions:	Impassable	¼ speed	½ speed	No restriction
Open woods	Lorries / Technicals	Full tracked. Hover.	Light armour or armoured cars	Foot infantry GF infantry
Close woods	All wheeled vehicles.	Full tracked. Hover.	GF Infantry	Foot infantry
Forest	All vehicles		Foot infantry GF infantry	
Built Up Area			All troop types	
Stream	Lorries / Technicals	Tracked vehicles		All Infantry Hover
River	All non-hover vehicles		GF Infantry SM Infantry	Hover
Minefields	maximum of 2cm move for all units until cleared.			

9. DIGGING IN

Basic trenches (= Dug In) takes one hour; +10 minutes if pinned; + 30 minutes if suppressed.

Dig in guns or vehicles - 8 hours

Deep trenches (Deeply Dug In, Bunkers) - 12 hours.

11. CLOSE ASSAULT

Close assaults can only take place in the same move if the assaulting troops have moved less than half their move, otherwise the calculation of the close assault is carried over to the next move.

Score :

1 point per strength point of infantry, robot tanks, technicals, or light armour

2 per conventional tank, strength point of GF infantry or Starship Marines

4 per Hover Tank

Vehicles assaulting densely built-up areas **halve** their value.

Roll 1d10 per side, **add leadership score**. Add following:

Deeply dug in	+4		Unsupported tanks	-2
Dug in	+3		Surprised	-2
Attacking on the flank	+2		Outnumbered 2-1	-1
Pinned	-1		Outnumbered 3-1	-2
Suppressed	-3		Outnumbered 4-1	-3
Non-tactical	-3		Outnumbered 5-1 or more	-4
Specialist close assault troops	+2		Unsupported robots	-2
Starship Marines	+2		Morale 'shaken'	-3

RESULTS TABLE

Take difference in resulting scores: Attacker score minus defender score.

SCORE	RESULT
5+	Position carried. All attackers pinned on captured position, defender surrenders. If defender deeply dug in then attackers take 1 loss for every defending unit
1-4	Position taken. If defender suppressed, then they surrender. Otherwise defender successfully withdraws 500 metres. All attackers pinned on captured position. Attacker takes 1 loss per defending unit. Defender takes 1P.
0	Confused fighting. Attacker takes 2 per defending unit. Defenders take 1 per attacking unit. Everybody counts as pinned.
-1 to -4	Attacker halted at 200 metres and all pinned takes 1 per defending unit.
-5 to -8	Attacker halted at 200 metres and all pinned takes 2 per defending unit.
-9 to -12	Attacker halted at 200 metres and all pinned takes 3 per defending unit.
Less than -12	Attacker breaks and runs non-tactical to nearest cover to rear. Takes 3 per defending unit, and is suppressed on arrival at nearest safe cover. If last move was a 'confused' close assault result then attacker surrenders.

12. MORALE

Throw 1d10, score as in the table or less to become demoralised.

This rule does not apply to Starship Marines or robot tank units who never roll for morale.

Morale is tested for each company in the following circumstances:

- The moment it encounters a Big Surprise
- At the point it :
 - Drops below 75% strength
 - Drops below 50% strength
 - Drops below 25% strength
- Every turn it is below 10% strength

Throw 1d10 (0=0). Additions to the die score :

+ Leadership score for company	-2 if Morale Shaken
+2 if dug in	-2 if suppressed
+2 if on captured objective	-2 for green troops
+2 for veterans	-1 if below 75% strength (in SP)
+1 in cover / buildings	-3 if below 50% strength (in SP)
	-5 if below 25% strength (in SP)

Results

Score 4+	Company Ok, may fight on
Score 0-3	Morale Shaken. May carry on but will be at a disadvantage on the next test
Score less than 0	Demoralised – surrender to enemy if within 200m (5cm)

Demoralised units may NOT:

- Reorganise
- Fire
- Advance
- Communicate sensibly (for arty calls)
- Locate targets.
- In addition the demoralised unit's leadership is reduced by 1.

13. RALLYING

When a unit becomes pinned or suppressed it will remain so until rallied.

This is treated as follows:

Roll 1d10, add leadership score. If the result is greater than or equal to the units rally score, then the unit has rallied one level.

This will normally move the units status from suppressed to pinned, or from pinned to Ok.

If the result is double the required rally score then the unit can rally two levels.

If the rallying unit is still under fire whilst trying to rally , -1 from die roll.

Typical rally scores :	Veteran troops	= 4
	Good troops	= 5
	Average troops	= 6
	Poor troops	= 8

PART II EXPLANATIONS

METHOD OF PLAY

Play requires the use of an active umpire for it to be really fast moving enough, although it will work without an umpire provided that the players are sufficiently non-competitive. In the sequence of action is carried out simultaneously for both sides. Interaction disputes are dealt with by the umpire(s). Great emphasis should be placed on proper orders, briefings, maps, communications and concealment.

In either case, it is important to conceal, preferably by marking on sketch maps, the location of forces that would not be in sight. This is where an umpire is essential, in that he can determine inter-visibility.

Another excellent method of achieving game concealment is to have one or more identical terrain models, separated by a screen, or in separate rooms. Each side has its own table, and the umpire places on only those enemy forces that have been located and reported. Obviously, this method requires duplicate forces and terrain. In these cases, maps and counters are superior to models because you can cheaply and quickly replicate the terrain and forces involved.

The method can be further extended to include extra tables for detached forces from the same side, in separate rooms, to enforce the real confusion and communication problems.

Clearly these more involved methods require more umpires and extensive facilities. As a guide, there should be at least one umpire per separate table or terrain model.

SCALES AND GROUND

Each move represents about 10 minutes of real time.

The ground scale for the terrain model should normally be 1:10,000 (ie. 1cm equals 100 metres).

Each model gun or tank or vehicle represents whatever is convenient, in fact models are optional. It is the area of the base which is important.

When designing terrain models that are not maps, be especially careful to get the relative positions of terrain feature correct for the area. Reference to readily available 1:25,000 O/S maps is a useful guide to realistic terrain.

BASE SIZES

The following are guidelines on base sizes for units. It is clearly impracticable to rule on every conceivable type of unit to be found in The Universe, but following are the main

types, with guidance on how to draw up bases for larger or smaller units where appropriate.

	Frontage	Depth
GF Armoured Infantry Section	20mm	20mm
GF Armoured Infantry Coy HQ	20mm	20mm
Hover Scout	20mm	20mm
Militia Company	50mm	30mm
Regular Infantry Platoons, Mortar Platoons, Engineer Platoons, Militia Battalion HQs, Starship Marine Groups	20mm	20mm
Hover Platoon of any type	40mm	40mm
Conventional Artillery	10mm per gun	As required
Tracked Armour	25mm	25mm
Lorries : (For troop transport, admin, logistics etc).	Frontage as appropriate	depth 4mm per real vehicle represented

The bases represent the normal area occupied by the unit when deployed for action. In some circumstances, units would have to operate in denser formations, for example in jungle, forest or towns. If you wish, duplicate units to represent this close order, down to a minimum of half the dimensions given above.

When organising your units, it is vitally important that you include the relevant tail units. Logistics are important in this game, and the presence of tail units has a battle-winning function.

ORGANISATION

A. PLANET GUARD / REGULAR INFANTRY. The basic sub-unit is the platoon. This is generally regarded as indivisible. Platoons are grouped into companies, and companies into battalions, in accordance with the order of battle (ORBAT) as detailed by the scenario or on The Universe website.

B. MILITIA INFANTRY. The basic sub-unit is the COMPANY. This is generally regarded as indivisible. Companies are grouped into battalions.

B. GF Infantry. The basic sub-unit is the section. Because of the greater fire-power, protection and mobility of the GF Armour they work better in smaller tactical units. Sections are grouped into companies.

C. ARMOUR. The basic sub-unit for armour is the platoon. These will be grouped into companies in accordance with the appropriate ORBAT.

D. ARTILLERY. The basic unit for artillery is the battery (normally of 4 guns if self-propelled or 6 guns if towed light guns), which in many armies would be grouped into regiments or battalions.

Batteries must be allocated to a formation for that formation to be able to call on it's support.

ORDERS AND COMMUNICATIONS

Each unit at company level and above will be given orders consistent with its objectives. These objectives will be defined in accordance with general orders either given by the umpire as part of the scenario, or generated in another, separate, planning game. These higher orders represent Division or Fleet operational directives. In the absence of an umpire or planning phase, the players can arrive at some agreement between themselves on force levels and orders.

Company/squadron groups should not be split up, unless (in the case of armour for example), units are attached in support. As a guide, elements of a company/squadron should not move more than 500 metres (5cm) from the next element in the same company/squadron if militia or 1,000m (10cm) if GF. Units may only react to events or targets that they are directly aware of, or have been reasonably informed of by friendly units.

Units may only engage targets or react to events if those targets or events have been located (see para 2).

Issuing orders and communicating information takes time.

Close Support fire can be called, provided that the supporting unit is allocated to the requesting unit at company level or below at the start of the operation and the supporting unit is either HoverGun, mortars, CS Missiles, ATGW missiles or Hovertanks. Close Supporting (CS) units can fire on any target located by the unit it is supporting, provided that unit is not suppressed and can still see the potential target after direct fire has been resolved.

Support fire is that from an artillery unit or units allocated specifically to the calling unit for the operation, at battalion level. These fire for area effect at a point designated one turn prior to the fire coming in. All area fire weapons can be allocated to Support – but cannot be counted as both support and Close Support in the same operation.

Orders for infantry and tanks.

Issuing orders that do not require contact with the enemy, such as movement orders - 10 minutes per battalion-equivalent.

Issuing orders to each battalion after the first, on the same objective - +10 minutes.

These are very general rules of thumb for timing plans and order issuing delays. There are many circumstances which will slow this down, such as coming under fire, or being in action at the time, or some special communication difficulties. Poorly trained or irregular troops will take 2 or 3 times longer to issue orders.



Timings should also be increased when cooperation is expected from units unfamiliar with each other.

It is not only difficult, but virtually impossible for a unit to attack anything without having issued orders or had some form of briefing beforehand. For calculating smaller actions, or opportunity attacks, allow about 10 minutes per company or equivalent involved.

Suppressed units cannot issue or receive orders.

TROOP QUALITY

The troop quality falls into three, easy to remember, categories:

A. VETERAN TROOPS. Units with a high proportion of combat experienced officers, NCOs and men. Veteran troops were very wary of being killed, since they have seen too much of it, and had lived to be veterans by keeping their heads down at the right moment! In summary, veterans are hard to kill, good at killing, but easy to pin down.

B. AVERAGE TROOPS. There is little to say about these. Average troops are therefore, by definition, those represented by the normal rules. Any troops you cannot be bother to classify remain average.

C. GREEN TROOPS. Troops who have seen no previous action. Green troops are easier to hit, because they have yet to learn the essential differences between exercises and battle, and are less cunning in their use of ground etc. They are also less effective with their weapons (a measure also of the quality of junior leadership in siting weapons). Green troops will, however, attack nearly anything - because all the gung-ho ones have not been killed off yet!

You will see from the factors that it is the relative skill of the protagonists that counts; that is veterans can gain a greater advantage over green troops than they can over average, and green troops have difficulty getting at veterans.

MORALE

There is no turn by turn morale throw in the normal form, since the immediate reaction of troops to incoming fire is represented by the pinned/suppressed result. There is, however, a general morale test of the units will to fight on. The test (para 12) is to determine whether the unit is demoralised and takes no further actions. It is an arbitrary, all or nothing, cut-off point.

Some definitions:

Armoured units (including GF Infantry) which become demoralised are counted as permanently suppressed. Once they have withdrawn to safety, the umpire will decide how long it will take the unit to recover. In the absence of an umpire ruling the unit will take 1d6 x 2 hours to recover.

Foot Infantry units demoralised will break and run (non-tactically) for secure cover to the rear. If the enemy are within 200 metres, or retreat is impossible, then they will surrender, or wait to be captured.

Clearly, the test only need be taken by units that have already been badly battered rather than every game turn.

LEADERSHIP

There has already been some reference to the concept of leadership. It is clear the qualities of leadership often distinguish between success and failure in battle. Whilst the player himself is demonstrating, in a very limited way, a few of the qualities of leadership this is not the whole story. Within any unit there are many junior leaders upon whom the player is implicitly relying. Leadership score is used to modify a number of results, in particular morale and close assaults.

If the scenario or umpire has not pre-allocated this score then use the following table for each company and for each battalion commander (and higher). Roll 1d6:

+1 to the die roll for GF troops or Marines

Score Leadership

1-2	0
3-4	+1
5	+2
6	+3

The factor is used in the rules in the following circumstances:

- i. In rallying from pinned or suppressed.
- ii. As an important factor in close assaults.
- iii. When testing for demoralisation.

The battalion commander can personally intervene in the above processes, provided the player is prepared to take the risk. If the role is not played by a player, then roll the commander's leadership or less on 1d6 for him to intervene.

The battalion commander is NOT the same thing as his HQ, which is a unit in its own right, and the Battalion commander should be separately represented, either with a suitable counter, or separately on a map. If he comes under fire then roll 1d6, score 1 to become a casualty. When a new commander is appointed, dice for his quality as above.

EXPLAINING THE CLOSE ASSAULT

The close assault rule (para 11) assumes that the purpose of most attacks is to eject dug-in infantry from a defensive position.

The exact area and strength of a defensive position is not always easy to define, so when the attack is adjudicated, the umpire (or the players by agreement) should determine how many defenders are involved in a single attack. This could be a single militia company, or a whole battalion, as circumstances dictate - but normally it is based on single platoons plus their supporting weapons (if any).

EXAMPLE:

A single Binnian Militia company (8 strength points) dug in on the edge of a wood, supported by an ATGW section (4 strength points). It has a leadership of +1.

This is attacked by 2 Martian GF sections (8 s.p.) and a HoverTank troop (4 hovertanks), after a 30 minute bombardment from SP Artillery. They have a leadership of +2.

The bombardment suppressed both the ATGW section and the infantry platoon.

Total Binnian strength = 8 + 4 = 12
 Total Martian strength = (2 x 8) + (4 x 4) = 32

Each side rolls 1d10:

	Binnian roll = 5		Martian roll = 4	
Factors:	Binnian		Martian	
	Dug in	+3	Leadership	+2
	Suppressed	-3	Die roll	+4
	Outnumbered 2-1	-1		
	Leadership	+1		
	Die roll	+5		
	-----		-----	
	Total	5	Total	6

Result: Attack minus defender: 6 - 5 = 1

Position Taken, the defender withdraws 200 metres into the wood, and loses 1 s.p. per unit, and is pinned at the end of the move. Of the attackers, each GF platoon takes 1 casualty, and the whole force is pinned on the objective. It will need to rally to continue the attack. Note: the tanks could just as easily have taken a casualty instead of the infantry, you can dice for where the casualties fall, or the umpire will make a judgement.

Some Definitions:

Unsupported Tanks = Tanks close assaulting with no infantry with them.

Undeployed = APC mounted troops attempting to 'shoot their way in' to a position, or other troops caught in a non-tactical position. This might be applied to bunched troops.

Specialist Close Assault Troops = Assault engineers, Starship Marines etc.

Flank attack – where it is possible to attack an enemy position from two clearly different directions simultaneously. It does not apply simply because you have more attacking units than the defender and 'lap round' their flank. The flanking force has to have approached from the flank or rear at the same time as a 'frontal' attack.

FIRE EFFECTS TABLES

The complete fire effect tables are in the annex at the end of these rules.
The weapons have been grouped into very broad bands.

Each weapon or unit has two range bands, 'Effective Range' and 'Long Range', and these ranges, in centimetres are noted under the name of the weapon system.

Roll one d10 (0=0) and add the modifiers given at the top of the firing tables. Read off the final score in the table and along the top of the table are the results.

In those results a number = the number of strength points lost in target unit;

P = target pinned

S = target suppressed

GENERAL DEFINITIONS.

Deeply Dug In (DDI)	Troops in bunkers, fortified cellars, pillboxes or other deep field defences with strong overhead cover. GF or SM troops Dug In count as Deeply Dug In.
Dug In (DI)	Troops in foxholes or mostly open trenches, or defending buildings
Armour	Tanks, Hovertanks, armoured cars, APCs, GF Infantry, Starship Marines.
Infantry	Planet guard or regular infantry, Militia, technicals or soft skin vehicles.
Speculative fire	Any shooting at a target who has not been located by the firing unit or by a unit calling the fire from an indirect fire unit (except Hovertank Slave Fire).
Bunched	More than 2 units co-located ('stacked') in the same area

The target may be moving non-tactically (see para 9). Since they are moving without regard to cover or concealment, they are much more vulnerable to fire.

Any troops making a non-tactical move automatically DOUBLE all effects on them.

STRENGTH POINTS

All units are composed of a number of strength points (SP).

For vehicle and armoured vehicle units, 1 SP represents one vehicle. For infantry it is 1 SP per 10 militia, 4-5 trained soldiers or 2 GF HMA armoured troopers

When an infantry unit loses all its strength points it has not, in fact, been wiped out to a man, but merely ceased to function as a unit.

As a rough guide, one infantry strength point lost equates to one killed and two wounded or one armoured soldier down and one damaged.

Examples of unit strengths:

Unit	Strength Points (SP)	Represents
GF Infantry Section	4	8 GF Armoured infantry.
GF Coy HQ Unit	4	5 GF Infantry and 1 GCV
Heavy GF Infantry Section	4	8 GF Armoured infantry armed with SLA3 and grenade launchers
GF Support Section	4	2 x manpack launchers of either ATGW or Support missile launchers. Carries 4 'shots' per section.
Starship Marine Group	10	35 Starship Marines with energy weapons.
Trained Infantry platoons	8	Approx 35 infantry, includes infantry ATK weapons
Infantry HQ Element	4	Approx 10 plus light vehicles
Towed Artillery Batteries	8	6 light guns and crews
Militia Company	8	About 80-90 militia, including RPGs etc.
ATGW sections	4	2 ATGW Launchers and crew
Mortar Platoon	4	4 Mortar tubes
HoverTank Platoon	4	4 Hovertanks
HoverRLS Platoon	4	4 RLS Hover Launchers
Hover Arty Platoon	4	4 Hover artillery
CSCV Platoon	4	4 Close Support Combat Vehicles
Standoff Missile Platoon	4	2 standoff missile launchers
Long Range Section	4	1 ICBM plus support vehicles
GF Engineer Platoon	2	12 specialist GF armoured engineers
Flyer Flight	4	4 armed flyers
AIR Unit	4	4 combat aircraft
Medium Airtrans / Shuttle	2	1 medium airtrans or shuttle
Light Airtrans / Suttle	2	1 large airtrans or shuttle
Pacifier Section	4	2 Ground attack pacifiers

Obviously the SP need to be recorded on a separate sheet.

If you wish, small counters can be used to mark SP losses, placed on the base.

If using counters and maps for the game, if it easy to design counters with 'strength boxes' that can be marked off as losses are taken.

ARTILLERY RANGES

Weapon	Effective Range	Maximum Range
Conventional artillery	30 km	40 km
GF Hover Artillery	40 km	60 km
Close Support Missiles (HE role)	10km	15km
Artillery missiles	15 km	25 km
RLS system	30 km	40 km
Infantry Mortars	3 km	-
Heavy Mortars	5 km	-
Standoff Missile	50 km	-
ICBM	Unlimited	Unlimited

Orbital Lasers have a limited loiter time which must be pre-planned into the mission. They can fire for 30 minutes and then cannot engage again for a further 4 hours (while the orbital platform comes round the planet for another pass).

Capital ships (Battleship / Heavy Cruiser) can discharge orbital bombardments and being powered can loiter for longer, though not indefinitely as 'hovering' at the top of the gravity well uses up masses of reaction mass.

Maximum loiter is usually around 3 hours, though it will depend on the situation.

Space-launched Pacifiers can only make one ground attack pass every 3 hours because they need to be recovered, refuelled and rearmed after every attack.

29. ENGINEERS

An engineer platoon with special digging equipment can dig a company-sized 'dug-in' position in 20 minutes, or a 'deeply dug in' position in 2 hours.

They are considered a non-tactical target when working. Engineers may demolish a bridge after 20 minutes preparation. Bridging troops may construct a prefabricated bridge in 10 minutes, or 20 minutes under fire (not including periods pinned or suppressed).

30. Prisoners

When units surrender, the surrender will be accepted by most troops. Exceptions must be specified in the scenario.

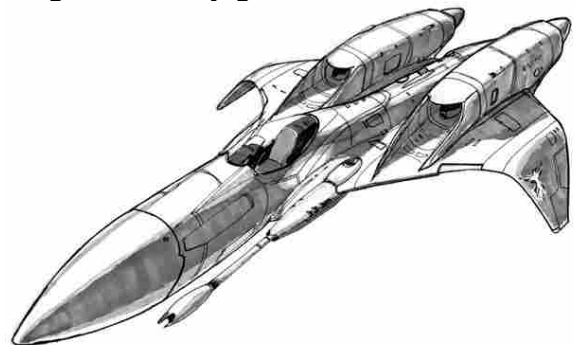
If a unit takes more than 50% strength losses in taking a single enemy position, then there is a 1/6 chance that the surrender will not be accepted and the defenders killed ("Too late chum!").

Guards must be provided for POWs at a ratio of one strength point detached for every 8 strength points captured (or part thereof).

AIR

Air to air combat takes place well above the combat zone and is rare because one side or the other has already established AIR superiority long before any ground combat.

AIR Strikes on ground targets are included in the artillery effects tables. There are two types Ground Attack Air (GA-AIR) and Other AIR. GA-AIR represents AIR equipped with munitions optimised for ground attack. 'Other AIR' includes multi-cannon strafing and dumb bombs or attacks by armed flyers.



Manned AIR Units can also be equipped for an ECM mission – but in this case it cannot carry munitions. One ECM Mission can provide effective cover for an area 10km x 10km (1m x 1m on the table). It takes 6 hours to convert a unit from ECM to GA and back.

ECM-AIR can be engaged by vehicle-mounted or fixed SAM, but the unit engaging them cannot be used for defence of targets that turn. Roll for any anti-ECM Mission SAM attack before adjudicating strikes,

Air attacks on a single beaten zone or target must be conducted in waves, of one AIR unit per wave. This means that all the Air defence units in range roll against all the incoming AIR units using the tables below.

Ground to Air fire

Ground fire against an incoming AIR attack can have one of the following outcomes.

- Deterrence - Deter the AIR strike altogether, forcing a mission abort before weapon release.
- Distraction - distract and AIR strike and make it less accurate
- Point Defence - damage AIR units after their weapon release

Effect of Ground Fire

If under AIR attack, roll 1d10 per unit firing.

Pinned Units or units under CLOUD may not fire on AIR

-1 if ECM mission accompanying the strike (not against point defences)

+1 of shooting against a strike by flyers or incoming/outgoing shuttles/airtrans

-1 if shooting against a pacifier strike.

Type	Range to AIR attack point	Score to force Abort	Score to Distract	Score to Damage	Type
GF or Hovertank Ground Fire	500m	-	-	8+	Point Defence only
Infantry Ground Fire	300m	-	-	9	
Multi-cannon in AAA role	800m	-	-	8+	
Infantry SAM	2000m	-	7+	9	Distraction (-2 on AIR effects)
Mobile SAM / CSCV	5000m	6+	-	8+	Deterrence
Strategic SAM (fixed)	Unlimited	4+	-	9	

Damaged AIR units lose one SP, abort and cannot sortie again that day.

Damaged Airtrans / Shuttles are grounded immediately; second damage causes a shoot down.

Undamaged AIR units can sortie over the battlefield every 4 hours (or as determined by the scenario).

Combat Helicopters/Flyers

These come in units of 4 SP and are counted as the same as 'Other AIR'.

Airtrans and Shuttle Deployment

GF Forces have high strategic mobility because they have small numbers and have very large operational areas (often an entire planet's surface).

Typically GF units are lifted by Airtrans that are integral to their organisation.

Light Airtrans are for command and liaison and do not normally lift units of any significant size.

Medium Airtrans can lift -

1 x GF Platoon

1 x GF HQ unit (less vehicles)

Heavy Airtrans

1 x Any tank, SP arty or CSCV unit or 4 vehicles.

1 x GF Company less vehicles

Airtrans count as vehicles for firing. They can move to anywhere on the map in one turn. They take one turn to load / unload.

Shuttles are designed for surface to orbit movements. In principle they are much the same as Airtrans, except that they are usually physically larger (though not larger capacity) and space-capable.

In the case of surface to geostationary orbital station transfers, allow a minimum of 2 hours transit time. Transfers to ships in low orbit will take less time as set out in the scenario.

AIR TO AIR COMBAT AND AIR SUPERIORITY

If the scenario dictates, it might be necessary to adjudicate air combat.

Air superiority is determined at the start of each day.

Each side allocates the forces it wants to deploy to Air Superiority.

The units are paired up – where one side is outnumbered, then some units will be outnumbered 2-1 or 3-1 as necessary.

Roll 1d10 for each pairing / combat. The highest roll will win, with the following die modifiers:

Outnumbering 2-1	+2	Air-air munitions shortage	-2
Outnumbering 3-1	+3	Veteran Pilots	+3
Outnumbering 4-1 or more	+4	Green Pilots	-2
Flyers	-3	Robot AIR	-3
Pacifiers	-1		

The losing side will lose 1 SP per unit engaged and the counter is removed to base.
The winning side remains in plan and the surviving units are paired up (unless one side breaks off) and the process continues.

The side with units in the air at the end has **air superiority for that day**.

If the winning side has more than 3 times the total size of opposing airforce in the air at the **end** of the air to air combat they have **AIR SUPREMACY**.

Any attempt by the side **without superiority** to launch AIR attacks or AirTrans / Shuttle missions runs the risk of interception.

Roll for each unit attempting mission.

-2 if enemy have Air Supremacy

-1 if enemy have active spy satellite cover

1d10	Outcome
0-2	Attacked and lose 1 SP. Mission abort
3-6	Attacked and forced to abort mission
7	Attacked and able to launch mission but lost 1 SP
8-9	Evaded intercept and launched mission

Firing Unit	Target Unit	Effective Range (ER)								Long Range (LR)							
RESULT		ne	P	S	1P	1S	2S	3S	4S	ne	P	S	1P	1S	2S	3S	4S
Armed Flyer / Other-AIR	Armour	0-1	2-6	7-8	9+	-	-	-	-	-	-	-	-	-	-	-	-
Beaten zone = 5 x 5	Inf	-	0-3	-	4-5	6-7	8-9	10+	12+	-	-	-	-	-	-	-	-
	DI	0-3	4-6	7-9	10+	-	-	-	-	-	-	-	-	-	-	-	-
	DDI	0-4	5-8	9+	-	-	-	-	-	-	-	-	-	-	-	-	-
GA-AIR / PAC Attack	Armour	0-5	-	5-7	-	8-9	10+	-	-	-	-	-	-	-	-	-	-
Beaten zone = 5 x 5	Inf	-	0-1	2-3	4-5	6-7	8-9	10+	12+	-	-	-	-	-	-	-	-
	DI	0-3	4-6	7-8	9	10+	-	-	-	-	-	-	-	-	-	-	-
	DDI	0-4	5-7	8	9+	-	-	-	-	-	-	-	-	-	-	-	-
Orbital Laser or CA	Armour	0-5	-	5-7	-	7-8	9+	-	-	-	-	-	-	-	-	-	-
Beaten zone = 12 dia,	Inf	-		0-3	-	4-7	8-9	10+	12+	-	-	-	-	-	-	-	-
	DI	0-3		4-7	-	8-9	10+	-	-	-	-	-	-	-	-	-	-
	DDI	0-4		5-8	-	9+	-	-	-	-	-	-	-	-	-	-	-
Battleship Bombardment	Armour	0-5	-	5-6	-	7	8	9+	-	-	-	-	-	-	-	-	-
Beaten zone 20 dia	Inf	-		0-2	-	3-7	8-9	10+	12+	-	-	-	-	-	-	-	-
	DI	0-3		4-6	-	7-9	10+	-	-	-	-	-	-	-	-	-	-
	DDI	0-4		5-7	-	8+	-	-	-	-	-	-	-	-	-	-	-
ICBM Conventional	Armour	0-5	-	5-7	-	8-9	10+	-	-	-	-	-	-	-	-	-	-
Beaten zone 5 radius	Inf	-	0-1	2-3	4-5	6-7	8-9	10+	12+	-	-	-	-	-	-	-	-
	DI	0-3	4-6	7-8	9	10+	-	-	-	-	-	-	-	-	-	-	-
	DDI	0-4	5-7	8	9+	-	-	-	-	-	-	-	-	-	-	-	-
HoverBus weapons	Armour	0-4	5-7	8	9+	-	-	-	-	0-7	8	9+	-	-	-	-	-
ER = 10	Inf	0-1	2-5	6-7	8	9	10+	-	-	0-1	2-3	4-5	6-7	8+	-	-	-
LR = 20	DI	0-1	2-4	5-6	7-8	9+	-	-	-	0-5	6-8	9+	-	-	-	-	-
	DDI	0-3	4-6	7-8	9+	-	-	-	-	0-8	9+	-	-	-	-	-	-

