TRAVELLER ®
The New Era

STRIKER II ™

Miniatures
Warfare
in the
far future

GDW

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The New Era

STRIKER II™

GDW

For Tessa and Devon

Design: Frank Chadwick
Additional Design and Development: David Nilsen
Art Direction: Bradley K. McDevitt
Cover and Interior Photography: Greg Novak
Typesetting and Proofreading: Michelle Sturgeon
Playtesting: Brennen Balesteiri, Rich Burk, Clayton Bush, James Conner, Rich George, John Kinder, Sheenan Krosley, Brian Lassater, Dave Lesch, John McCarthy, Joey Rubenstein, Aaron Schmidt, Steve Schwartz, Graham Smith, Steve Swan, Jerry Webster
Playtest Coordinators: Tom Harris, and Dave Hermann as The Beaver

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RULE 1: THE FUNDAMENTALS

Striker is a tactical miniatures game of ground combat in the far future. It is designed to emphasize the two salient aspects of combat at this level—rapidly changing tactical situations and the importance of leadership and troop quality—while allowing for a wide variety of weapons and vehicles from all tech levels covered by the **Traveller®** science-fiction roleplaying game.

Striker is set in the universe of **Traveller: The New Era**, but its rules can as easily be used for resolving science-fiction battles in any milieu. Game information for vehicles, weapons and personnel are listed in the equipment data charts. The appendices to these rules contain the organization charts of typical main force units (primarily battalions) for the Reformation Coalition, the Regency of Deneb and a variety of smaller states. Equipment data for these units is included in another appendix. The game reference charts contain information most frequently used during the play of the game.

1.1 Scale

These rules are written with 25mm miniatures in mind, but may be used with any scale desired. Each vehicle or heavy weapon represents one actual vehicle or heavy weapon of that type. Single-figure stands represent single individuals, while multiple-figure stands represent four-person fireteams.

Ground scale is 1:1000, which means that each millimeter on the gaming table represents one meter of actual distance. All movement and ranges in the game are given in centimeters on the playing surface (each representing 10 meters of real distance). For players without access to metric rulers, one inch equals 25 meters.

Each game turn represents five minutes of elapsed time.

1.2 The Referee

Striker may be played with or without a referee. A referee should be a player who knows the rules well and is willing to supervise the game being played, but not play. A referee's tasks are to generate the scenario, determine the terrain and the makeup of both sides, and keep track of hidden units. In addition, the referee is responsible for keeping the game moving and adjudicating any dispute of the rules that may occur. This leads us to the following ironclad statement:

The referee's word is law during the course of the game, even if the ruling is directly contrary to the printed rules.

Each group of players will have varying opinions about values of specific weapons, the best way to represent specific battlefield activities and so on. The middle of a game is not the best time to debate such points. The best way to avoid this is to make the referee's rulings final for the scenario being played. Discussion should wait until after the game is over (indeed, a post-game "debriefing" can be very rewarding).

A referee can be dispensed with if a group consists of cooperative, well-experienced players who can agree upon a scenario ahead of time.

A well-planned scenario takes into account the number of players, their experience with the rules, the table space and troops available for play and the time that can be devoted to the game. The referee has the right to alter rules, ratings and organizations so as to best suit the scenario he is attempting to run. Victory conditions, if needed, and any other information necessary for the scenario should be given to players. As a general rule, the more organized the scenario, the better the actual game will be for the players.

1.3 Sequence of Play

1.31 Phases: Each game turn is played in a series of phases. In general, these phases are resolved in sequence, with all action in one phase being resolved before another phase begins. The phases, in order, are:

Command Phase
Movement Phase
Fire Phase
Morale Phase
Melee Phase

The details of what occurs in each phase will be taken up later in these rules. It is the job of the referee to see that each phase is carried out quickly and in its proper sequence.

1.4 Task Rolls

The central game mechanic in **Striker** is a D20 task roll. This roll is made to determine if targets are seen or hit by fire, among other things.

The target number for the roll is usually determined by the range and quality of troops making the attempt. This will then be modified by difficulty modifiers, abbreviated "diff mods," in the rules. A +diff mod makes the task more difficult by halving the target number (rounding fractions down), while a –diff mod makes it easier, doubling the target number.

All applicable diff mods are combined into a single composite modifier, which is then applied to the task. As a practical matter, diff mods serve to shift the range column used to the right (+diff mod) or the left (–diff mod).

Once the target number is determined, roll 1D20. If the number rolled is less than or equal to the target number, the task succeeds; otherwise, it fails.
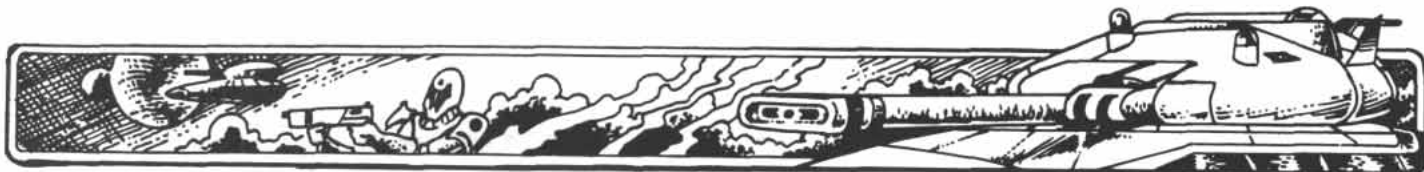
RULE 2: MOUNTING TROOPS

For convenience, these rules will use the term "stand" to refer to any group of based figures, a vehicle model or a towed weapon (although when dealing with vehicles or towed weapons, these rules sometimes use the word "model"). There are three main types of stands—vehicles, towed weapons and personnel—with each type further subdivided according to several classifications.

2.1 Vehicles

Vehicles consist of all vehicles, including towed trailers and horse-drawn wagons and carts (but not cycles).

All vehicles are divided into six classes according to weight: class I (up to 1.5 metric tons), class II (1.5 to 3 metric tons), class III (3 to 9 metric tons), class IV (9 to 20 metric tons), class V (20 to 36 metric tons), and class VI (more than 36 metric tons).

Vehicles also are subdivided according to their suspension (wheeled, tracked or lift), and whether or not they are open-topped. Half-tracked vehicles are treated as wheeled vehicles unless otherwise noted.

2.2 Towed Weapons

Towed weapons consist of all towed guns, howitzers, energy weapons and towed mortars.

Towed weapons are subdivided into the same six weight classes as vehicles: class I (up to 1.5 metric tons), class II (1.5 to 3 metric tons), class III (3 to 9 metric tons), class IV (9 to 20 metric tons), class V (20 to 36 metric tons), and class VI (over 36 metric tons).

Each towed weapon's model represents only the towed weapon itself; its crew is represented separately by a personnel stand or stands. Therefore, towed weapons are never mounted on stands but are instead placed on the stands of their crews during the course of the game. This enables the crew stand of a weapon to be moved separately from the gun model (necessary in some situations, such as when gun crews panic and abandon their weapons).

2.21 Fixed Weapons: Some artillery pieces are labeled "fixed" instead of having a weight classification. Moving a fixed weapon involves dismantling it and transporting its component pieces, something which cannot be accomplished in the normal course of a battle.

2.3 Personnel Stands

Personnel stands consist of all other stands. There are a large number of names applied to personnel stands: infantry, cavalry, gun crew, command, engineer, MMG, pack animal and HIW stands, among others. Some stands have two or more names, such as "SMG cavalry stand" or "mounted command engineer stand." The name applied to a stand indicates how it is referred to on tables of organization and on the Personnel Movement and Small Arms Fire Characteristics Tables (see page 00).

Notes: The term "HIW" (heavy infantry weapon) refers to those personnel stands with certain weapons that are not towed, but carried by the men in that stand. These weapons include medium mortars, heavy machineguns and similar weapons. For example, an 8cm mortar stand is a stand equipped with an mortar model fastened to the stand along with two to three crew figures.

Cycle stands (bicycles, motorcycles and grav cycles) are considered to be infantry riding the cycles unless otherwise specified. For example, a "motorcycle MMG stand" is a MMG stand riding motorcycles.

Finally, these rules distinguish between three different sizes of personnel stands: fire team stand, single stand and crew stand.

2.31 Fire Team Size: The base for a fire team stand, representing four infantrymen, is 1.5 inches wide by 1 inch deep (or 40 mm by 25 mm). Two or more figures should be mounted on each stand (whichever looks best) and should show the weapons carried by that stand if at all possible. (A gauss rifle stand will have gauss rifles, a plasma bazooka stand has a plasma bazooka, etc.) In some cases, it may be necessary to use a slightly larger stand than this to accommodate larger figures, as in the case of mounted cavalry.

2.32 Double Size: A double-sized stand, representing the crew of a large heavy weapon (one which is fired from a mount instead of from the shoulder) is 2 inches wide by 1.5 inches deep (or 50 mm by 40 mm). Two or more figures should be mounted on each stand. If the weapon used by the stand is a man-packed weapon, such as a mortar, the weapon should also be mounted on the stand. If the stand is to be used as a crew for a towed weapon, the figures should be mounted in such a way that the weapon can be placed (but not glued) on the stand.

2.33 Single Size: The single-figure stand, representing a single commander, scout, or sometimes commando, is 3/4 inch by 3/4 inch (or 20 mm by 20 mm). Only one figure should be mounted on each stand. In some cases, it may be necessary to use a slightly larger stand than this to accommodate a larger figure, as in the case of a trooper wearing battledress, or a race more massive than humans.

If necessary, these stand sizes may be changed slightly to allow infantry stands to fit into the back of model vehicles, and so on. This is not required, but the visual effect of troops riding in the models is very pleasing. (However, this may not be possible with some types of model vehicles.)
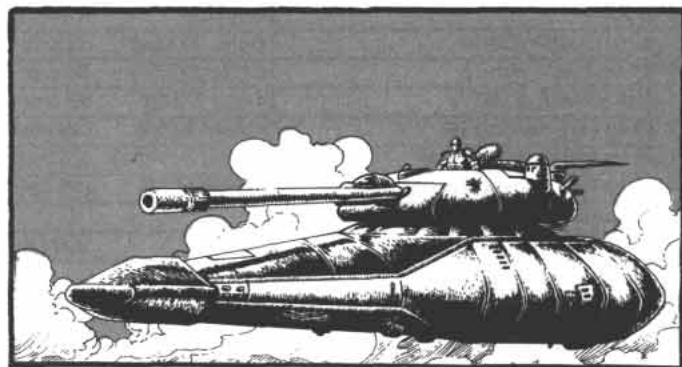
RULE 3: UNIT CARDS

Each platoon-sized unit should have a unit card. Unit cards contain all the information needed for players to run the unit. All weapons and equipment, including vehicles, used by the unit should be rated. These ratings are broken into three general groups: unit values, performance, and weapons and sensors.

3.1 Unit Values

This section of the card lists the troop quality type (Elite, Veteran, Experienced or Novice), the morale value and the initiative number of the troops in the unit. All these should be identical. If separate elements of the platoon have different values, separate cards should be made up for each of them.

One of the duties of the referee is to see that each stand used in the scenario being played is assigned one of the four troop qualities, as well as a morale value. The referee may use the ratings found in the appendices, or may choose to modify them for the scenario being played.

The troop quality categories and their definitions are:

Elite: Elite units are few and far between. They represent excellent units which are experienced and tested in combat many times. An example of an Elite unit would be Reformation Coalition marines who were veterans of several major operations.

Veteran: Veteran units have extended combat experience. Veteran units are occasionally found on Balkanized worlds, the products of nearly constant warfare between local warlords.

Experienced: Experienced units have either "seen the elephant" (been in combat) or had reasonably good training. Most armies are made up of experienced troops.

Novice: These are inexperienced troops who have been put into action with a minimum of training. Most planetary militias are from this category.

Towed weapons do not have a troop quality *per se*. Rather, their quality is equal to the personnel stand operating the weapon. The effects of troop quality rating are found on the Troop Quality Summary Table (page 7).

Morale ratings range from 8 to 22, with higher numbers indicating better morale. While troop quality and morale often go together, this is not always the case. There are times when Veteran troops may have poor morale, such as an experienced but battle-weary unit, or when poorly trained and equipped units go into action with great elan and vigor, as in highly motivated and well-led militia defending their homes.

3.2 Performance

This section of the card describes the armor protection (if any) of the unit, its movement allowance and its communication gear. The format of this section of the card is different for vehicle and personnel units.

3.21 Armor: Personnel armor descriptions consist of an armor type description (such as "heavy battledress") followed by a saving throw number. Vehicle armor descriptions include separate armor values for a variety of different surfaces of the vehicle.

3.22 Movement: Personnel stands have a single movement allowance. Vehicles have two movement allowances: either cross-country and road (for ground vehicles), or low and high (for flying vehicles).

3.3 Weapons, Sensors, and Communicators

Weapons, sensors and communicators are handled as a single group because they function in a similar manner (though their effects are different). This section of the chart consists of a list of sensors, communicators, and weapons carried, followed by four columns, representing performance at each of the four range bands. The values recorded in each column indicate the equipment's performance at that range.

3.31 Assets: There are four ranges in the game: short, medium, long and extreme. These are the headings of the four range columns on the

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Gamma Company, 6th Battalion, 4518th Lift Infantry Regiment, The Duke of Regina's Own Huscarles, with:
Company Headquarters, with:
1 operational command stand
3 Jump Troop Platoons, each with:
1 tactical command stand
1 support infantry stand
3 Jump Troop Squads, each with:
1 tactical command stand
2 infantry stands

Notes: Each stand is outfitted with TL14 light battledress. Command and infantry stands are armed with TL14 4.7cm fusion rifles, the infantry stands additionally having an integral 4cm RAM grenade launcher. The support stands are armed with TL-15 30kg "Fire and Forget" missiles and an integral TL15 5.1cm fusion rifle.

Troop Quality: <u>Elite</u> Morale: <u>20</u> Initiative: <u>4</u>
Armor: <u>Battledress</u> Save: <u>8</u>
Movement: <u>18</u> cm

System:	Short (15)	Medium (7)	Long (3)	Extreme (1)	Notes
4.7cm fusion rifle-14	16 cm: 2 (33+)	32 cm: 1 (33+)	64 cm: 1 (17+)	128 cm: 1 (3+)	
5.1cm fusion rifle-15	18 cm: 2 (37+)	36 cm: 1 (37+)	72 cm: 1 (19+)	144 cm: 1 (4+)	
4cm RAMGL-9 HE	24 cm: 3 (Nil)	48 cm: 2 (Nil)	96 cm: 1 (Nil)	192 cm: 1 (Nil)	EP: 3, BR: 2 cm
30 kg F&F homing HE	(20 km) 1 (5+)	(40 km) 1 (5+)	(54 km) 1 (5+)	—	A10, EP: 8, BR: 5 cm
30 kg F&F homing HEAP	(20 km) 1 (149+)	(25 km) 1 (149+)	—	—	A10, EP: 11, BR: 6 cm
30 kg F&F homing flechette	(20 km) 1* (2)	(40 km) 1* (2)	(54 km) 1* (2)	—	A10, DS: 15x60 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300 cm	600 cm	1200 cm	2400 cm	

chart below. Following the heading is a space to write the unit's *asset* at that range. The unit's asset is a quantification of its performance at that range, and is based on the troop quality level of the unit. The following table lists the asset of each troop type at short range.

Troop Quality Summary

Type	Asset	Initiative
Elite	15	5
Veteran	13	4
Experienced	11	3
Novice	9	1

Write this value in the blank following the short range heading. The asset value is then halved, rounding fractions down, at each higher range band. The asset values for an Experienced unit, for example, would be 11 at short, 5 at medium, 2 at long, and 1 at extreme range.

3.32 Range: Each sensor, communicator and weapon has a listed short range, either found by consulting the data annexes of this book or by looking at the **Traveller** rating for a weapon. The range recorded on the card in the first column is the equipment's short range in centimeters. (Since each centimeter in the game represents 10 actual meters, take the range in meters of **Traveller** equipment and divide by 10 to find the range in centimeters.)

The equipment's medium range is twice short range. Long range is twice medium range. Extreme range is twice long range. Write each of these ranges in the appropriate column and place a colon (:) after each.

Some weapons and sensors have ranges so long that they are listed in kilometers instead of centimeters. Each kilometer is one meter on the gaming table.

3.33 Rate Of Fire: Rate of fire is the number of dice thrown for successes each phase.

Sensors and communicators do not have rates of fire. (Sensors always throw one die for successful spotting attempts. See Rule 6.4.)

Weapons have a rate of fire or 1 or more, depending on how fast the weapon actually fires. This can be found by looking at the data annexes of this game or by consulting the **Traveller** ratings for the weapon (and the rule on converting **Traveller** weapons to **Striker** values).

The weapon's game rate of fire (number of dice rolled) is written after the colon in each range column. This rate of fire drops by one at each higher range band, but is never reduced below 1.

3.34 Penetration: Sensors do not have a penetration. All weapons have a penetration which is written in parentheses following the weapon's rate of fire value. As penetration sometimes declines with range, it is written separately in each column. If using the data annex in this book, simply copy the penetration values listed.

Most heavy weapons have a final penetration equal to their penetration value plus the roll of 2D6. For these weapons, place a plus sign (+) after their penetration as a reminder. In the following rules these are referred to as "plus penetration weapons."

The sample unit cards on the previous page illustrate how unit cards are laid out. Several blank unit cards are provided later in the book, and permission is specifically granted to photocopy these sheets for use with the game.

3.4 Vehicle Cards

Units equipped with vehicles have a slightly different format for their unit cards, as the cards also contains the ratings for the vehicles in the unit. If more than one type of vehicle is used, separate unit cards are filled out for each vehicle. The general information on the card, however, is the same as for personnel units described above. Consult the sample vehicle unit card on the previous page for an example.

The Tercio of Steel (Novice, Morale: 14), with:
   Tank Detachment

1 tactical command TL8 Prairie Fire fast tank
3 TL8 Prairie Fire fast tanks

Prairie Fire Fast Tank (TL8)

Troop Quality: <u>Novice</u> **Morale:** <u>14</u> **Initiative:** <u>1</u>
Movement: 130 road (+1, +2, +2), 100 cross-country (—, +1, +2)
   Front Armor: 192
   Side Armor: 48
   Rear Armor: 24
   Deck Armor: 36
   Belly Armor: 24

Cargo Capacity: —
Environmental: Overpressure, Air breathing
Electronic Warfare: Decoys (5)
Ammunition: 25 shots of 130mm (any combination of above), unlimited shots for both MGs
Maintenance Points: 62
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: Ignores 2 Diff Mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

System:	Short (9)	Medium (4)	Long (2)	Extreme (1)	Notes
130mm L60 Gun-APFSDSDU	67 cm: 1 (207+)	134 cm: 1 (197+)	268 cm: 1 (187+)	536 cm: 1 (167+)	F, S
130mm L60 Gun-HEAP	51 cm: 1 (123+)	102 cm: 1 (123+)	204 cm: 1 (123+)	408 cm: 1 (123+)	F, S, EP: 9, BR: 3 cm
130mm L60 Gun-HE	51 cm: 1 (13+)	102 cm: 1 (13+)	204 cm: 1 (13+)	408 cm: 1 (13+)	F, S, EP: 11, BR: 4 cm
130mm L60 Gun-Flechette	51 cm: 1 (2)	102 cm: 1 (2)	204 cm: 1 (2)	408 cm: 1 (2)	F, S, DS: 3×10 cm
7mm Rotary MG-Ball	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	F, S
5mm Rotary MG-Ball	15 cm: 7 (3)	30 cm: 6 (3)	60 cm: 5 (Nil)	120 cm: 4 (Nil)	F, S
Sensors:					
3km HRT	300 cm	600 cm	1200 cm	2400 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30km radio	(30 km)	(60 km)	(120 km)	(240 km)	

RULE 4: COMMAND AND CONTROL

Orders issued during the Command Phase allow units to carry out operations during the Movement Phase. Orders are always issued by specific commanders. The order itself is represented by a game marker placed on the playing surface.

Units must receive orders to move, but do not need orders to fire.

4.1 Commanders

There are four types of commanders in the game: self-commanders, tactical commanders, operational commanders and strategic commanders. Self-commanders represent high-initiative troops, such as reconnaissance patrols or specially trained commandoes. Other commanders represent leaders who may direct the actions of other troops.

All commanders may issue one (and only one) order during the Command Phase of each turn. The order is represented by a command chit which is placed on the playing surface. All orders are removed from the playing surface at the end of the game turn.

The principal difference between commanders resides in where they may place their order chits.

4.11 Self-Commanders: Order chits issued by self-commanders are placed on or immediately adjacent to the stand that issued the order. The order affects only the stand which issued the order.

4.12 Tactical Commanders: Order chits issued by tactical commanders are placed on or immediately adjacent to the commander's stand. The order affects any or all (at the owning player's option) subordinate stands within 15 cm of the order chit.

4.13 Operational Commanders: Order chits issued by operational commanders may be placed anywhere on the gaming table visible to the commander's stand. The order affects any or all (at the owning player's option) subordinate stands within 15 cm of the order chit.

4.14 Strategic Commanders: No commander can function as a strategic commander by himself. Instead, operational commanders when working with a staff stand function as strategic commanders. See Rule 4.4 below for a discussion of staff stands.

Order chits issued by strategic commanders may be placed anywhere on the gaming table, whether visible to the commander or not. The order affects any or all (at the owning player's option) subordinate stands within 15 cm of the order chit.

4.2 Orders

Orders may are issued by command stands during the Command Phase. Orders affect any or all stands subordinate to the issuing stand, at the owning player's option (see Rule 4.32, below).

The following are the orders that may be issued, as well as the phase in which the orders take effect. Note that chits are included in the counter mix for each type of order.

4.21 Cautious Advance (Movement Phase): Units with a *cautious advance* order may move any distance desired up to their normal movement allowance. They must move in the direction the arrow on the order chit points. *Cautious advance* orders are discussed further in Rule 5.11.

4.22 Rapid Advance (Movement Phase): Units with a *rapid advance* order must move their full movement allowance and may move up to twice their normal movement allowance. They must move in the direction the arrow on the order chit points. *Rapid advance* orders are discussed in Rule 5.12.
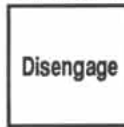
4.23 Disengage (Movement Phase): Units with a *disengage* order move directly away from the closest visible enemy unit and may move any distance desired up to their full movement allowance. Disengaging units are assumed to be making maximum use of concealing terrain, evasive movement and artificial cover (such as smoke), and so may not be fired on by opportunity fire (see Rule 7.23). *Disengage* orders are further discussed in Rule 5.14.
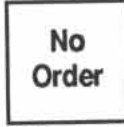
4.24 No Order (Command Phase/Movement Phase): *No order* orders are used in situations where a player does not wish to move a unit, but does not wish to let the enemy know that fact. Units under a *no order* order may change facing within the limits outlined in Rule 5.8, but may not otherwise move. They may fire normally.

4.25 Rally (Morale Phase): *Rally* orders enable a routed unit to rally, and also are used to raise the morale of units who have suffered morale reductions during the game. *Rally* orders are discussed further in Rule 9.3.

4.26 Take Command (Command Phase): *Take command* orders enable a commander to take a unit under its command (make it subordinate) which was not subordinate at the beginning of the game. *Take command* orders are discussed further in Rule 4.421.

4.27 Travel (Movement Phase): Units issued a *travel* order must move at least their normal movement allowance and may move up to three times their normal movement allowance. *Travel* orders are discussed further in Rule 5.13.

4.28 Regroup (Morale Phase): *Regroup* orders enable a commander to return eliminated fire-teams to play. *Regroup* orders are discussed further in Rule 9.4.

4.3 Issuing Orders

Orders are issued by command stands. In all cases, there are limitations on what orders can be issued to which units.

4.31 Chain of Command: Orders chits, once placed on the playing surface, can only affect those stands which are subordinate to the commander issuing the order. The referee will

determine which stands are subordinate to which commanders when setting up the scenario. A large number of sample organizations are provided later in this book as a guide.

As a general rule, all stands of a battalion are subordinate to the battalion's commander. In addition, the battalion stands are also considered subordinate to the regimental commander. Thus, stands belonging to an infantry company could be issued orders by the company commander, by the battalion commander or by the regimental/brigade commander. They could not be issued orders by the commander of a different company or battalion, however.

When issuing a *take command* order to transfer control of a unit from one commander to another, commanders may not be subordinated to a different commander at the same or higher level of command. A regiment can thus take command of a battalion and its command stands, but a battalion commander cannot take command of another battalion's commander. It could, however, take command of the subordinate elements of that battalion.

4.32 Placing Orders: Orders are issued by placing an order chit next to the stand or group of stands to which it is intended to apply. The chit is placed with the order to be used facing up. The distance from the stand issuing the order and the point at which it is placed will depend on the type of stand issuing the order.

The radius of effect of the order is 15 cm from the spot where it is placed, unless the unit is moving along a road or trail in column, in which case the order is placed at the head of the column, and all stands within the column will obey it. A stand need not be able to see the point at which the order was placed. If it is within 15 cm of the order, it may obey that order.

A stand must be subordinate to the stand issuing the order for it to obey. If a stand that is under that command is not intended to follow the order, that fact must be stated when the order is revealed. Stands that do not intend to follow the order are considered to have been given a *no order*.

Example: A local defense infantry platoon with a platoon (tactical) commander mounted on an infantry fireteam stand, two other infantry stands and two machinegun stands decides to move forward. The player places a *rapid advance* order chit next to his command/infantry stand, which is within 15 cm of his other two infantry stands and both machinegun stands. Upon revealing the order, the player states that the machinegun stands will remain in place to give the rest of the platoon covering fire. The commander and the three infantry stands are then moved, and the machinegun stands remain stationary.

4.33 Order Caps: Included in the counter mix is a set of chits which are blank on one side and marked as "Command," "Staff" or "Self ordering" on the reverse. Each player should be given a number of these caps equal to the number of commanders under his control. Self order caps are used for self-commanders. Staff caps are used for strategic commanders. Command caps are used for tactical and operational commanders. These order caps serve two purposes:

- They are placed on top of the order chits so that the

opposing players may not see what orders have been issued until they are revealed during the start of the Movement Phase.

- They serve as a reminder of the maximum number of orders which may be issued in any one turn by a player. If a player only has two command caps and one staff cap, that player may not use more than three order chits in any one turn.

4.4 Command Stands

Command stands may each issue one order per turn. As mentioned, orders can be issued to any stand or group of stands that are subordinate to that command stand and within command range. Stands to which a *Take command* order was issued become subordinate to the command stand that issued the order.

4.41 Types of Command Stands: There are two ways of mounting commanders on stands in the game. They can be either single-figure (pure) command stands, or double-figure (joint) command/other function stands. Tactical commanders are usually mounted as part of a fire team stand, while operational and strategic commanders are always mounted as single figures.

Pure command stands are labelled "command stands" in the TO&E listings. Double-figure command stands are listed as part of another type of stand in the TO&E listings: "command infantry stand," "command weapons stand," "command engineer stand," and so on.

The difference between the types of commanders (tactical, operational and strategic) is related to the communications ability of their unit and to the level of command it represents. These capabilities will be determined by the referee prior to the start of the scenario, again using the sample organizations provided as a guide.

4.42 Restrictions on Command Stands: The following restrictions exist on the ability of all command stands to issue orders:

4.421 Take Command Orders: Any command stand which is issued a *take command* order by another command stand in order to change its subordination for the turn, may not itself issue any orders for that turn. This restriction only applies to the stand which was issued the order, not to those command stands which are in turn subordinate to the command stand that was issued the order.

Example: The command stand of an infantry company is given a *take command* order which is intended to make the company subordinate to the battalion commander of a tank battalion. During this turn, the infantry company commander may not issue any orders of its own, but the platoon commanders of the company could.

4.422 Pinned Command Stands: Command stands which are pinned, either through fire or failure of morale, or the use of a voluntary pin, may not issue orders until they are unpinned. The pinned command stand, and those stands around it, may only be given an order by another command stand to which they are subordinate.

4.423 Visibility and Command Stands: Visibility affects the

placement of an order by a commander (except in the case of strategic commanders). No commander (other than a strategic commander) may ever place any order chit farther away from it than its visibility will allow. Once an order is placed, that order affects all stands within 15 cm, regardless of visibility, so long as the stand in question is subordinate to the stand issuing the order, and not exempted from the order by the player placing it.

Example: A commander is in woods, where visibility is limited to 5 cm. The commander is therefore limited to placing his order chit within 5 cm of his location. However, once placed, the order may affect all subordinate stands within 15 cm of its location, even though visibility is limited to 5 cm.

4.5 Staff Stands

Staff stands represent groups of trained staff officers with the ability to plan, coordinate and communicate with distant subordinate units. Staff stands enable operational commanders to function as strategic commanders.

4.51 Types of Staff Stands: The types of staff stands used in the game are differentiated by their means of communication. There are staff telephone stands, staff radio stands and staff uplink stands. The difference between these stands is their communications ability. Note that it is possible for an army to use several types of staff stands in the same unit.

4.52 Differences Between Staff Stands: The differences between the types of staff stand are:

4.521 Staff Telephone Stands: Staff telephone stands may only function in scenarios where their units start with a setup area on the game board. Once placed on the board, they allow an adjacent operational commander to issue one order per turn to any point within that area, regardless of whether that point is visible to the commander. Visibility never affects staff telephone stands. This setup area should be marked on the referee's scenario map, but not indicated on the playing surface itself. It represents the area in which telephone lines have been laid.

Note that any stand or group of stands which leaves the setup area may no longer be issued an order by the staff telephone stand.

Staff telephone stands that move during the course of a game lose their ability to function as a staff stand for the remainder of the game.

4.522 Staff Radio Stands: Staff radio stands actually represent staffs using open channel broadcast radios. They are usually mounted on vehicles (and thus may be listed on the order of battle as a "staff radio truck," "staff radio G-carrier," etc.) at lower tech levels, but become more mobile at higher tech levels. Once placed on the board, they allow an adjacent operational commander to issue one order per turn to any point on the board where stands subordinate to the commander are found, regardless of whether that point is visible to the staff stand. Visibility never affects staff radio stands.

Staff radio stands or vehicles that move during the course of a turn lose their ability to function as a staff stand for that turn.

Once stationary, they resume their role as a staff stand.

4.523 Staff Uplink Stands: Staff uplink stands rely on satellite retransmission of communications instead of broadcast radio. They function exactly like staff radio stands for purposes of the command rules. (If using the electronic warfare rules, they may not be jammed. If playing as part of larger campaign., uplink requires control of close orbit.)

4.53 Restrictions on Staff Stands: The following restrictions exist on the ability of all staff stands to issue orders:

4.531 Take Command Orders: A staff stand of any type which has been issued a *take command* order by another command stand in order to change its subordination, may not assist a command stand that turn.

4.532 Pinned Staff Stands: Staff stands which are pinned may not assist commanders until they are unpinned.
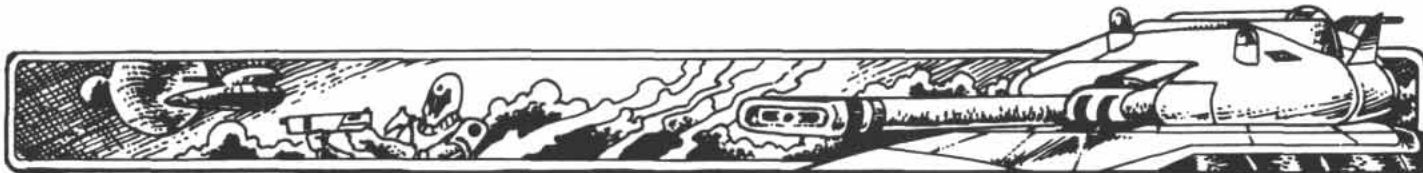
RULE 5: MOVEMENT

Stands are moved in the Movement Phase. Even involuntary movement such as routs, retreats and force-backs is considered to take place in the Movement Phase, although the actual displacement of the stands may have been handled in previous Morale or Fire Phases.

Each personnel stand has a single movement allowance, which for humans on foot (the most common personnel stand in the game) is 20 centimeters.

Each ground vehicle stand has two movement allowances: a cross-country movement allowance and a road movement allowance.

Flying vehicles also have two movement allowances: a low-level movement allowance and a high-altitude movement allowance.

Towed weapons have no movement allowance; they are moved by being towed or man-handled into position.

A movement allowance states the basic distance (in centimeters) a stand may move in the Movement Phase. The actual distance a stand moves may be modified by its orders and/or by the terrain it crosses.

5.1 Movement and Orders

There are limitations on how stands may move which are imposed by the movement order given to those stands. The movement orders and their effects are as follows:

5.11 Cautious Advance: The *cautious advance* order allows a stand or group of stands to its full movement allowance. The stand or group of stands need not move, but if it does, it must move in the same general direction as the arrow on the order chit. For all game purposes, the stand or group of stands so ordered is considered to be moving regardless of whether or not it actually does so. Flying vehicles use their low-altitude movement allowance when issued this order.

5.12 Rapid Advance: A *rapid advance* order allows a stand or group of stands to move up to twice its full movement allowance. Stands need not move their full movement allowance but must move at least half of their movement allowance. Flying vehicles use their low altitude movement allowance when issued this order.

5.13 Travel: The *travel* order affects different types of stands differently. Stands of any type issued this order may not fire during the Fire Phase.

Travel can only be issued to a personnel stand or group of stands that starts the turn on a road. This order allows the stand or group of stands to move three times their normal movement on the road. The stands may follow any twists or turns in the road, but may not leave the road during the turn.

Ground vehicles may be issued this order whether or not they are on a road, and move three times their appropriate movement allowance.

Flying vehicles issued this order move at their high-altitude movement allowance.

5.14 Disengage: When units disengage, they make maximum use of covering terrain and artificial cover (such as smoke grenades) to conceal their withdrawal. A *disengage* order allows a stand to move directly away from the nearest visible enemy stand up to its full movement allowance. It need not move its full movement, but it must move at least half of its movement, unless it retreats into a higher state of cover.

Stands operating under a *disengage* order may *not* be fired upon using Opportunity Fire (see Rule 7.23). The only exception is if the disengaging stand moves closer to an enemy stand, in which case only the enemy stand(s) which had the range decrease may fire. Note that as a disengaging stand must move directly away from the closest visible enemy unit, it is possible to move toward another enemy unit.

A *disengage* order may never be issued to unlimbered towed weapons, Novice units or units which are pinned. Vehicles must use their cross-country movement allowance when using the *disengage* order, even if disengaging along a road. Flying vehicles must use their low-altitude movement allowance.

5.2 Road Movement

A stand may only use its road movement allowance if it starts the turn on a road and moves along the road for the entire Movement Phase, never leaving it during the Movement Phase.

5.21 Direction: A stand may move in one direction along a road. When a stand comes to a crossroad, it may continue onto any branch (so long as its route does not cause it to move on the same section of road twice in a turn) regardless of the direction of that travel.

The direction arrow on the order chit does not limit a stand's ability to move along a road. If a stand starts off-road, the arrow on the chit indicates its required cross-country movement direction. Once it reaches a road, it may freely move in either direction along the road. If, however, a stand moves off its ordered axis of advance while travelling on a road, it may not leave the road for the rest of the Movement Phase.

The stand must end its turn on the road facing in the direction that it was last moving.

5.22 Blocked Roads: A stand may not use road movement through a blocked road point. A blocked road point can be caused by enemy action such as an antivehicle obstacle, or by a vehicle which remains stationary there during the course of the Movement Phase. The wreckage of a disabled or destroyed vehicle on a road is also considered a blocked road point.

Stands may not leave a road to travel on terrain they cannot move on (although they may be pushed off onto such terrain in accordance with Rule 12.3).

5.3 Cross-Country Movement

If a vehicle moves off-road for any portion of its movement during its Movement Phase, it must use its cross-country movement allowance for the entire phase.

A stand must attempt to move in the direction shown by the arrow on its order chit and must end the Movement Phase facing in the same direction as the arrow on the order chit.

Small changes of direction are allowed during movement in order to avoid obstacles, but such a unit must still end the phase facing in the same direction as the order chit. If a referee is present, he judges what variations of movement direction are reasonable. In games without a referee, a stand may not use more than 20% of its movement allowance to dodge obstacles.

Stands may freely move through positions held by friendly stands, so long as they do not end the move in the same position as friendly stands.

5.4 Movement and Enemy Units

No personnel stand may move through or end its movement in a position (a bunker, entrenchment, pillbox, etc.) occupied by an enemy stand.

No ground vehicle stand may move through or end its movement in a position occupied by an enemy vehicle. A vehicle may move through a position occupied solely by enemy personnel stands.

Flying vehicles are not affected by the presence of enemy stands.

5.5 Terrain Effects and Movement

Terrain can affect the movement of stands, depending on their type and the terrain they are attempting to cross. The cost of a stand to move across a given type of terrain is either:

• Times two (×2): The stand pays 2 cm of movement for every 1 cm of actual movement.

• Times 4 (×4): The stand pays 4 cm of movement for every 1 cm of actual movement.

• Prohibited: The stand is not allowed to move into that type of terrain.

The penalties caused by contour lines represent natural slowing when moving up or down a grade.

5.51 Effects of Terrain on Personnel Stands: Personnel stands pay double movement costs when moving through jungle, settlement, rubble, steep slopes and swamps and when moving across creeks or along creekbeds.

5.52 Effects of Terrain on Tracked Vehicle Stands: Tracked vehicle stands pay double movement costs when moving through woods, settlements and creeks. They may not enter jungle, rubble, steep slopes or swamps, nor may they move along creeks. They pay a 5cm penalty for each contour line they move across (either up or down).

5.53 Effects of Terrain on Wheeled Vehicle Stands: Wheeled vehicles pay quadruple movement costs when moving through woods. They may not enter jungle, swamps, rubble or steep slopes, or move along creeks. They may only cross creeks at a ford. They pay double movement costs when crossing a creek at a ford, or when moving through a settlement. They pay a 10cm penalty for each contour line they cross.

5.54 Effects of Terrain on Air Cushion Vehicle Stands: Air cushion vehicles pay quadruple movement costs when moving through rubble and settlements. They may not enter jungle or woods, nor may they cross steep slopes. They pay double movement costs when moving through open woods. They may cross water barriers and move through swamps at

Terrain Type	Personnel	Wheeled Vehicle	Tracked Vehicle	Air Cushion Vehicle
Broken	×2	P	×4	×2
Cliff	P	P	P	P
Contour line	—	−10 cm†	−5 cm†	−20 cm†
Creek/ford (cross)	×2	×2*	×2	—
Dense vegetation (Jungle)	×2	P	P	P
Light vegetation (open woods)	—	—	—	×2
Moderate vegetation (woods)	—	×4	×2	P
Railway embankment (cross)	—	P	−10 cm†	−20 cm†
Rubble	×2	P	P	×4
Sand	—	×2	—	—
Sand dune	×2	×4	×2	—
Settlement	×2	×2	×2	×4
Steep slopes	×2	P	P	P
Swamp/marsh	×2	P	P	—

*Only at fords.
†Per line crossed.
P: Prohibited.
—: Normal movement.
This chart does not include terrain types discussed in the Advanced Rules.

no additional penalty. They pay a 20cm penalty for each contour line they cross.

5.55 Settlement Blocks: Only personnel stands and towed weapons may be placed in settlement blocks. Vehicles may enter settlements but must remain on the streets or in alleyways.

Each block of buildings in a settlement should have a 1:1 scale cutout of card stock or paper. The number of personnel stands that can be placed in the settlement block is the number which can physically be fit on the cutout. A towed weapon doubles the effective size of its crew stand.

Refer to the Terrain Effects Table on the previous page.

Example: An infantry stand is moving through a jungle under a *cautious advance* movement order. With a movement allowance of 20 cm, the stand could move 10 actual centimeters through the jungle (each centimeter of jungle costs it 2 cm of movement allowance). If the stand crosses a 5cm creek and then moves through a jungle, it would only be able to move 5 actual centimeters in the jungle (the creek costs it 10 centimeters of movement allowance).

5.6 Special Movement Cases

There are a number of special movement cases that need to be covered:

5.61 Backing Up: A ground vehicle that receives a *cautious* or *rapid advance* order may back up using the cross-country movement rate. It does so by paying quadruple movement costs prior to any modifiers for terrain. The vehicle moves in the direction of the arrow but faces in the opposite direction.

5.62 Man-Handling Towed Weapons: Players may elect to have unlimbered class I and II towed weapons moved forward by their crew or other personnel stands. To man-handle a towed weapon, the personnel stand must start adjacent to the weapon and must be given a *cautious* or *rapid advance* order. Class I towed weapons are moved 2 cm with a *cautious advance* order and 4 cm with a *rapid advance* order. They pay any terrain modifiers as if they were a personnel stand. Class II towed weapons are moved 1 inch with a *cautious advance* order and 2 cm with a *rapid advance* order. They pay any terrain modifiers as if they were a wheeled vehicle.

5.7 Movement to Contact

Occasionally, stands of opposing sides will find themselves ordered to move toward a common destination or through one another's lines. In these cases, resolve the point of contact by moving stands on both sides proportionally (for example, move each stand one quarter or one-tenth of its movement at a time until contact is made).

5.71 Closing to Contact: A unit given a *cautious advance* order may never move more than halfway toward any visible enemy unit. If it encounters a previously unspotted enemy unit during movement, it immediately stops at the normal autospot distance for that terrain. Units may only close to contact with enemy units if given a *rapid advance* order.

5.72 Drive-Through: Ground vehicles given a *rapid advance*

order may drive through or over enemy personnel and towed weapons. The vehicle is stopped immediately before moving through the stands, but its order marker is moved to its projected final destination. The vehicle will finish its movement only after all opportunity fire (see Rule 7.23) has been resolved. If the vehicle is still able to move after opportunity fire, it completes its movement.

Any towed weapon of a smaller mass category than the moving vehicle driving through is crushed.

Any unarmored vehicle of a smaller mass category than a tracked vehicle driving through is crushed.

Each personnel stand driven through must make a saving throw to avoid taking a casualty (the casualty being crushed by the moving vehicle). The saving throw is made by the owning player rolling 1D20 as if conducting close range fire. In other words, Elites avoid a casualty by rolling 15 or less, while Novices avoid a casualty by rolling 9 or less.

FACING DIAGRAM
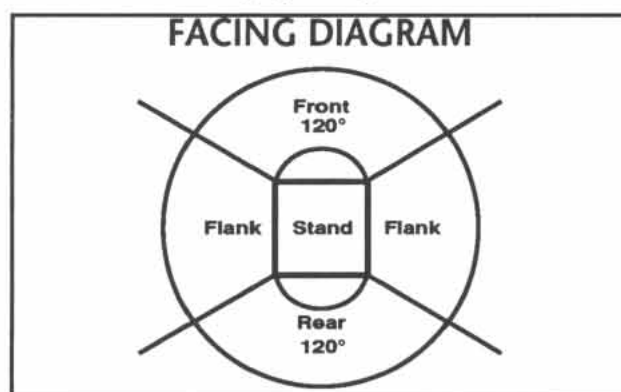
5.8 Facing

All stands have facing. They must face in a specific direction. In the Movement Phase, stands have their facing determined by their movement chit (that is, they must end the turn facing in the direction of the movement chit). All stationary stands may freely change their facing at the beginning of the General Fire sub-phase. All stands may freely change their facing at the beginning of the Final Fire sub-phase, no matter what order they were given.

5.81 Front and Flank: The front of a stand is the 120° arc to its front. The stand's remaining 240° arc is its flank. To determine front and flank, use the template included with the game.

5.82 Fields of Fire: All personnel stands, all vehicle weapons in turrets and all towed weapons mounted on turntables have 360° fire (they may fire in any direction). All other weapons may only fire to their front 120° arc.

5.83 Firing on the Flank: AFVs have armor ratings for front and flank. If the incoming fire is from the flank, use the flank armor rating. Otherwise, use the frontal armor rating.

5.84 Top Attack: AFVs have top armor ratings as well. If the incoming fire is a top-attack missile or is fired from a flying vehicle firing from higher than NOE altitude, it is considered a top attack.

RULE 6: VISIBILITY AND SPOTTING

Opposing stands are not visible to each other at all times. Enemy stands may be hidden from view and must be spotted before they become visible.

6.1 HIDDEN STANDS

Stands that are not visible to the opposing player are not placed upon the playing surface. Some or all stands may start the game hidden, depending on the scenario being played and the referee's decisions. There are two methods available to keep track of hidden stands. The first method requires the use of a referee; the second is used if there is no referee.

6.11 Hidden Stands With a Referee: The hidden units are not placed on the playing surface. The owning player keeps track of the hidden stands and their orders on a map. Orders issued to hidden stands do not have their chits placed on the playing surface.

The referee keeps track of the location of the hidden stands and resolves all game functions regarding the hidden stands without revealing any information about the stands. All die rolls for spotting, therefore, are made by the referee to avoid revealing any information about the die roll. The opposing player is only informed of the spotting attempt if it is successful and the spotted stands are placed in position on the playing surface.

6.12 Hidden Stands Without a Referee: If a referee is not available, then it is suggested that the players use the numbered counters supplied with this game to represent hidden stands (if more are needed, they are also easy to make out of blank game counters, tiddly-winks, poker chips and the like).

Each side should have an equal quantity of numbered counters, regardless of the number of stands they have hidden. A numbered counter may represent one or more similar stands, or the counter might represent a dummy (no stands assigned to it).

Treat dummy counters as if they represent real stands until spotted. A dummy stand may move as any type of stand, and change its type from turn to turn. However, dummy stands still need an order chit to move, though this chit is free and need not be actually issued by a command or staff stand. When attempting to spot such a chit, treat it as what it last moved as. Thus, if it moves as a vehicle, then all spotting attempts should treat it as a vehicle.

If the spotting attempt succeeds, the numbered counter is replaced with the stands it represents. The dummy counter is removed from play when spotted. If the spotting attempt fails, then the counter continues as before.

Dummy counters may not attempt to spot enemy stands.

If a visible stand starts the Movement Phase without any enemy stands having a line of sight (see Rule 6.3, below) to that stand, the stand may be replaced with two numbered chits. One chit represents the actual stand, while the second serves as a dummy. Either (or both) chits may be move in the Movement Phase that follows.

6.2 Visibility

The normal maximum visibility range is 500 cm, which is almost always the range of the table or more. For spotting only, increase the maximum visibility distance by 50 cm for every level higher that the spotting stand is over the intended target.

Example: A recon stand is on a hill three levels high. For purposes of attempting to spot a unit on the board on the base level, it would have a maximum visibility of up to 650 cm.

6.3 Line of Sight (LOS)

A stand may only be visible to another stand if it is within visibility range and an unblocked line of sight can be traced between the two stands. A line of sight is a straight line between the two stands. It is blocked if it passes through an obstacle. Obstacles are cover, hills, smoke, friendly stands, and disabled and destroyed vehicles.

6.31 Cover: Cover is defined as any of the following: jungle, woods, open woods, swamps, sand dunes, settlements and rubble. In addition, depending on the scenario, stone walls, hedgerows, fields, exceptionally tall grass or scrub vegetation, very broken ground, embankments and other terrain may offer cover for purposes of determining visibility (at the discretion of the referee or by previous agreement among the players).

If any portion of a stand is not in cover or smoke, then that portion of the stand may be spotted (which reveals the entire stand).

6.32 Open Woods and LOS: A line of sight between stands in the same open woods is not blocked if the stands are within 10 cm of each other. A line of sight may be traced 5 cm into an open woods area from outside.

6.33 Woods and LOS: A line of sight between stands in the same woods is not blocked if the stands are within 5 cm of each other. A line of sight may be traced 1 cm into a woods area from outside.

6.34 Jungle and LOS: A line of sight between stands in the same jungle is not blocked if the stands are in contact. Troops in a jungle are visible only if in contact with the edge of the woods.

6.35 Roads/Trails and LOS: Roads or trails through woods and jungle have a line of sight of 10 cm along the road/trail itself, while roads/trails through an open woods have a line of sight along the road of 20 cm. Stands which are using line of sight along a road or trail must be inside the edge of the open woods, woods or jungle.

Any stand *outside* the open woods, woods or jungle boundary looking down a road or trail that is *inside* an open woods, woods or jungle boundary has its visibility blocked at 5 cm for open woods, 1 cm for woods and 1 cm for jungle.

6.36 Settlements, Streets and LOS: A line of sight between stands is not blocked in the same settlement block or adjacent settlement blocks if the stands are within 2 inches of each other. (Settlement blocks divided by roads or streets are *not* considered to be adjacent.) A line of sight may be traced 1 inch into a settlement block from outside the settlement, or from a

nonadjacent settlement block.

Streets through settlements have a line of sight of 10 cm along the street itself, while roads through a settlement have a line of sight along the road of 20 cm. Stands which are using line of sight along a road or trail must be past the boundary of the settlement. Any stand looking down a road or trail that is not inside the settlement boundary still has its visibility blocked at 1 cm.

When a line of sight is traced between stands at different elevation levels, the line of sight may pass over any obstacles or cover in between the stands, leaving the actual line of sight unblocked. If the height of the obstacle is less than or equal to the height of both stands, the line of sight is unblocked.

If the obstacle is higher than one of the stands, then the following applies: The minimum requirement for passage of line of sight over an obstacle is that the stand on the higher elevation must be at least one level higher than the obstacle, and that the obstacle be closer to the higher stand than the lower stand.

In addition, the obstacle can not be within 2 inches of either stand. If the higher stand is at least two levels higher than the lower stand, the obstacle can be at any point along the line of sight, as long as it is not within 2 inches of either stand.

The height of the obstacles is computed as follows:

Obstacle Height

Obstacle	Height
Friendly stand	1 level
Hill	2 levels for each contour level that the hill is above the lower stand. Sand dunes count as one contour hill.
Cover	2 levels, unless the referee/scenario determines otherwise
Smoke	3 levels

For purposes of determining an obstacle, hills have a cumulative effect in that they are added to any other obstacle found on top of them. Thus, if woods (cover) are found on top of a hill one contour high, the obstacle would be treated as if it were four levels high.

If single-figure stands are attempting to spot out of a settlement, for all purposes of spotting they are considered to be at level 2 elevation. All stands located in a settlement, including single-figure stands, are considered to be at level 1 for purposes of being spotted.

Example: A command stand is located in a settlement, and attempting to spot a vehicle on a one level contour hill 100 cm away. There are woods 35 cm away from the settlement. Since both the command stand and the target stand are considered to be located on level 2, the same as the height of the woods, the woods do not block line of sight for the command stand.

However, for the vehicle attempting to trace a line of sight to the command stand, it is considered as being on the first level of the settlement, and since the woods are equal in height to that of the vehicle, the vehicle does not have a line of sight

back to the settlement.

Note that only single-figure stands can claim this bonus. All other stands attempting to spot out of the settlement are considered to be at the first level, and therefore do not have a line of sight back to the vehicle, since the woods are two levels high.

6.4 Spotting

Spotting may be attempted in the Movement Phase and at the end of each Fire sub-phase (provided the target of the spotting attempt fired in that sub-phase). Each time that there is a chance of spotting an enemy unit, a spotting attempt may occur. For each hidden enemy stand that a player is attempting to spot, there must be at least one stand that has an unblocked line of sight to the enemy stand. Regardless of the number of stands that have an unblocked line of sight to the hidden enemy stand, only one spotting attempt may be made to spot the stand per phase. This attempt is made by the stand with the best chance of spotting.

6.41 Spotting During Movement Phase: In the Movement Phase, spotting is resolved at the end of the phase, but it is assumed to take place at the point where the stand would have its best chance of spotting the enemy. If both the spotting and hidden stand are moving, use proportional movement to determine where the spotting would have taken place.

6.42 Spotting During Fire Phase: During each Fire Phase, one additional attempt to spot enemy stands is allowed. Only enemy stands which fire may be spotted during the Fire Phase. Spotting is resolved at the end of the sub-phase in which the stand fired. Those stands that were moving during the Movement Phase are still considered to be moving for purposes of spotting, though all actual movement is finished by this point in the turn. All spotting attempts during the Fire Phases are made from where the stands end their movement.

6.43 Resolving Spotting: The unit attempting to spot determines what sensor it will use. All units have "eyeball" sensors available, but many also have one or more form of advanced vision enhancement or sensor available. Only one may be used per spotting attempt.

Measure the range to the target against which the spotting attempt is to be made. The referee should do this, perhaps with the spotting team turned away, to avoid disclosing the actual location of units when no dummy counters are in use. The range determines the correct sensor range column (short, medium, long or extreme) used.

The status of the spotting unit and the target unit provided will provide increases or decreases to the difficulty of the spotting attempt, called +diff mods or –diff mods. Each + or – diff mod has the effect of moving the range band at which the attempt is made one closer or farther away. These are listed on the table below and are expressed in terms of diff mods.

All modifiers (both positive and negative) are added together to find a single cumulative difficulty modifier. If this reduces the range to less than short range, the target is automatically spotted, and no die roll is made. If it increases it

to more than extreme range, no die roll is made, and the attempt automatically fails, *unless the target is within short range of the unit attempting the spot.*

Units very close to hidden enemy units may still be able to spot them. If the target is within short range, the cumulative +diff mods are instead used as progressive halvings of the printed short range of the spotting unit.

Example 1: An enclosed vehicle spotting to its flank or rear using eyeball is attempting to spot an enemy personnel stand stationary under cover at a distance of 30 cm. This is within eyeball close range (100 cm), but the target enjoys a total of +4 diff mods, which would normally make the spot impossible. Converting this to four progressive halvings of the short range produces a modified short range of 6.25 cm (rounded down to 6 cm). This would make medium range 12 cm, long range 24 cm and extreme range 48 cm. Since the target is at 30 cm, the spotting attempt is resolved using the extreme range success number.

Example 2: A personnel stand using eyeball is attempting to spot an enemy personnel stand stationary under cover at a distance of 20 cm. This is within eyeball close range (100 cm), but the target enjoys a total of +2 diff mods, which would normally push the spotting range out to long. Converting this to two progressive halvings of the short range produces a modified short range of 25 cm. Since the target is at 20 cm, the spotting attempt is still resolved using the short range success numbers.

Spotting Difficulty Modifiers

Spotting Stand is	Diff Mod
Recon	−1
Elite	−2
Veteran	−1
Green	+1
Moving	+1
Enclosed vehicle spotting to front	+1*
Enclosed vehicle spotting to flank	+2*

Target Stand is	Modifier
Moving	−1
Firing	−1
Stationary under cover	+1
Personnel	+1

*Modifiers apply only when conducting naked eye spots; they do not apply when using any sort of electronic sensor or vision enhancement equipment.

6.44 Handing Off Targets: Once a hidden enemy stand is spotted, it can be fired at during the next Fire Phase by all elements of the spotting unit that have a direct line of sight to it and are otherwise eligible to fire. Other stands not part of the spotting unit may fire at it on the turn after that. For this purpose, a "unit" is defined as all elements that are subordinated to the same platoon or company-level headquarters.

Example: A Reformation Coalition force has two task forces operating together, each built about a company headquarters, with an grav tank platoon, lift infantry platoon, powered armor platoon, recon squad, etc., attached to each. If a stand in either task force is successful in spotting an enemy unit, all elements of that task force may fire at it in the next Fire Phase. The elements of the second task force must wait until the following turn before they can engage those targets.

6.45 Autospot: Stands are automatically spotted under certain limited conditions. Any stand in contact with another stand is automatically spotted by that stand. Any personnel stand that approaches within 5 cm (or the limits of visibility as modified by weather, terrain and all other factors, whichever is less) of an enemy stand automatically spots that stand. Any stand moving and firing in the open is automatically spotted by all units within visibility distance.
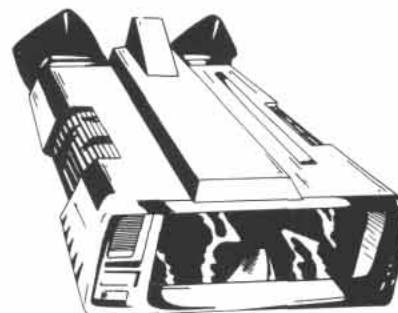
PRIS binoculars

Light Amplifier goggles
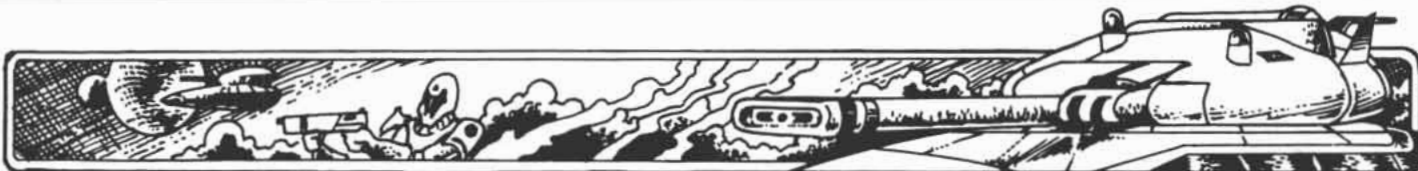
RULE 7: DIRECT FIRE COMBAT

There are two types of fire combat: direct fire and indirect fire. Direct fire consists of flat trajectory fire from a firing unit to a visible target. Indirect fire consists of any fire which is at a target observed by a different stand as well as any high-angle plunging fire. Thus, mortar fire is always indirect fire, even when the firing crew can see its target.

Fire combat takes place in the Fire Phase. All fire is directed at individual stands, which will be referred to as "targets." The information presented in this section is relevant to all types of fire.

Units eligible to fire in the Fire Phase may do so, but are not required to. Fire in the Fire Phase is not simultaneous, but is instead conducted in order based on the type or order given the unit and its initiative level. To facilitate this, the Fire Phase is broken down into three sub-phases: Opportunity Fire, General Fire, and Final Fire.

7.1 Direct Fire Resolution Overview

When a stand direct fires at a target, the fire is resolved in several simple steps. The fire from the stands involved will depend on the weapons with which they are equipped. The unit's data card provides the necessary information.

First the firing player measures the range from the firing stand to the target, measuring from the center of the edge of the firing stand closest to the target to the closest edge of the target stand. Comparing this to the ranges listed for the firing weapon on the unit's data card, the firing player determines which of the four range bands the fire is resolved at.

Consulting the correct column of the unit data card, the firing player notes the firing weapon's rate of fire (how many dice are rolled for hits). This may be reduced due to movement of the firing stand, as noted below.

Next the firing player looks at the top of the correct range column of the unit data card to determine the firing unit's hit number. This may be affected by target movement or concealment or other factors noted below.

Once the correct hit number is known, roll the correct number of D20. Each roll equal to or less than the hit number causes a hit.

In many cases, a stand will have the ability to use more than one weapon in the course of the turn. For example, a Pandina light reconnaissance vehicle is equipped with an autocannon and machinegun in its turret. During the Fire Phase it could fire both turret-mounted weapons, provided they fired at a single target.

7.2 Sequence of Fire

7.21 Fire Eligibility and Orders: The ability to fire depends on the order given. The Orders Summary Table below lists the sub-phase in which a unit fires depending on the order given in the Command Phase.

Thus a stand given a *disengage* order does not fire until the Final Fire sub-phase, while a stand given a *take command* order fires in the Opportunity Fire sub-phase.

Pinned units may not fire until the Final Fire sub-phase, regardless of the order given them.

7.22 Order of Fires: Fire is conducted in the general order prescribed by the Fire sub-phases. Within a sub-phase, units fire in the order of their initiative number, with the highest initiative units firing first. All fire by a unit is carried out before the next unit (with a lower initiative number or firing in a later Fire sub-phase) fires. A stand which is eligible to fire could therefore be destroyed or driven out of range early in the Fire Phase, and as a result not be allowed to fire when its turn comes.

Units firing in the same sub-phase and with the same initiative numbers fire simultaneously. All fire in a phase is simultaneous. The results of simultaneous fire do not apply to a stand until after it has had an opportunity to fire as well.

All firing stands of a unit must be allocated a specific target before any rolls are made. If more than one stand is to fire at an enemy stand, and the target stand is destroyed before the other stands have a chance to fire, they are *not* allowed to switch targets. They must fire at their designated target without regard for the effects of the other fire.

7.23 Opportunity Fire Sub-Phase: Stands conducting direct fire during the Opportunity Fire sub-phase may fire at a target at any point along its movement. The targets are returned to the point at which the firing player designates, and the fire carried out, with any results taking effect at that point. If the fire fails to halt the target stand, it is returned to its original destination.

Stands which are moving in cover and are fired at during the Opportunity Fire sub-phase do *not* receive benefit of cover for that sub-phase only.

7.24 General Fire Sub-Phase: The General Fire sub-phase is resolved after all opportunity fire. All fire is resolved based on the actual location of the target stands after all movement has been carried out.

7.25 Final Fire Sub-Phase: The Final Fire sub-phase is resolved after the General Fire sub-phase. All stands which fire in this phase may fire direct fire at any enemy stand within 25 cm. Stands further than 25 cm from an enemy stand may not fire during the Final Fire sub-phase.

7.26 Stabilized Guns: Stabilized weapons on vehicles facilitate fire on the move, and may modify the above general rules. See Rule 7.34 for the effects of stabilized guns on sequence of fire.

Orders Summary

Order	Opportunity	General	Final
No order	Yes	—	—
Take command	Yes	—	—
Cautious advance	—	Yes	—
Rapid advance	—	—	Yes
Disengage	—	—	Yes
Travel	—	—	—
Rally	—	—	—
Regroup	—	—	—

7.3 Number of Dice Thrown

7.31 Rate of Fire: Each weapon has a rate of fire (ROF), listed on the unit data chart. The ROF is the number of dice rolled for hits when the weapon is fired, assuming the weapon is stationary. Note that the ROF of the weapon varies with the range at which it is fired.

A weapon is not required to fire its full number of allowed dice.

7.32 Firing at Multiple Targets: A stand may normally use its full ROF during a turn. If it fires at more than one target, reduce its ROF by 1 for that phase. (A stand would have to have an ROF of 3 or greater to fire at more than one target in a phase.)

7.33 Movement and Fire: Movement affects both when a unit fires and its rate of fire.

Units which have received a *cautious advance* order subtract 1 from their ROF.

Units which have received a *rapid advance* or *disengage* order subtract 2 from their ROF.

7.34 Stabilized Weapons: Some vehicles have stabilized weapons which allow for more effective fire while moving. Stabilized weapons, if present, will be listed as basic, good or advanced.

7.341 Basic Stabilization: Weapons with basic stabilization do not subtract 1 from their ROF for a *cautious advance*.

7.342 Good Stabilization: Weapons with good stabilization treat a *cautious advance* as a *no order* and a *rapid advance* as a *cautious advance* for both ROF and sequence of fire purposes.

7.343 Advanced Stabilization: Weapons with advanced stabilization treat both a *cautious advance* and a *rapid advance* as *no order* for both ROF and sequence of fire purposes.

7.4 Determining Hits

The troop quality of the firing unit and the range band determine the unit's base hit number, which is recorded on the data card. Once the final hit number is determined, roll the correct number of D20. Each roll equal to or less than the final hit number is a hit.

7.41 Concealment: This base hit number is halved (rounding fractions down) if the target is concealed (+1 diff mod).

A target is concealed if it is in vegetation, partially obscured by smoke, deployed partially behind an obstacle (such as a vehicle hull-down or infantry firing over a wall), or inside of a structure, such as a settlement, entrenchment or hardened pillbox.

7.42 Single-figure Stands: Single-figure stands always have their hit number halved (rounding fractions down) in addition to all other modifications (+1 diff mod).

7.43 Small Arms Hit Distribution: Hits from small arms fire are not placed on just the target stand, but are randomly distributed within a 10cm area of the target. Any personnel stands in the same cover as the designated target stand may be hit. Vehicles in the target area are not affected by small arms fire unless they were targeted by the firing player. (Usually this will mean that they are wheeled or open-topped, but occa-

sionally a player may choose to fire small arms at a more heavily protected vehicle to cause morale check.)

7.431 Procedure: Count the number of possible target stands within 10 cm of the target stand that are in the same cover. Assign each stand an equal chance of being hit, and roll 1 D20 to see which stands are hit. Note that some stands may be hit more than once, and that other stands, including the original target stand, may be left untouched.

Example: A native defender player inflicts six small arms fire hits on a group of Reformation Coalition stands. In the target area, there are two squad support laser (SSL) stands, a command infantry stand and three infantry stands. The native player states that he will use the following to determine which stand is hit.

Sample Small Arms Hit Distribution

Die Roll	Target
1-3	1st SSL stand
4-6	2nd SSL stand
7-9	Command infantry stand
10-12	1st infantry stand
13-15	2nd infantry stand
16-18	3rd infantry stand
19-20	Reroll

If the native player rolls a "13, 14, 12, 5, 20, 9, 10," he must reroll the 20. He does so, and rolls an 8. The first SSL stand and the third infantry stand are untouched; the second SSL stand takes one hit; and the command infantry, first and second infantry stands each take two hits. The effect of the hits will be determined by the troop quality of the target stand (see Rule 7.0).

7.432 Different Modifiers: There will be circumstances where stands in the same area have different modifiers. The firing player may elect to fire at all the enemy stands in an area, only if he is willing to give all enemy stands the best possible modifiers. Otherwise, stands with a different modifier may not be fired at, even though they are in the same target area.

7.5 Protection and Penetration

Traditional low-tech infantry wears no armor heavier than a wool uniform, but as the battlefield becomes more dangerous, target protection becomes more widespread. Armored protection is treated differently for personnel stands and vehicles. In both cases, weapon penetration is important in determining what, if any, damage is inflicted by a hit.

7.51 Penetration: Each weapon has a penetration which is noted on the unit data card. The weapon's penetration is in parentheses after the unit's ROF. Some weapons have a "+" following the penetration value. These weapons are known as "plus penetration weapons." Other weapons are called "small arms."

7.511 Small Arms: The penetration value listed on the unit data card for the weapon is its actual penetration value. Note that this is usually different at different ranges. A listed penetra-

tion of "nil" means that it is largely ineffective at that range when used against armor.
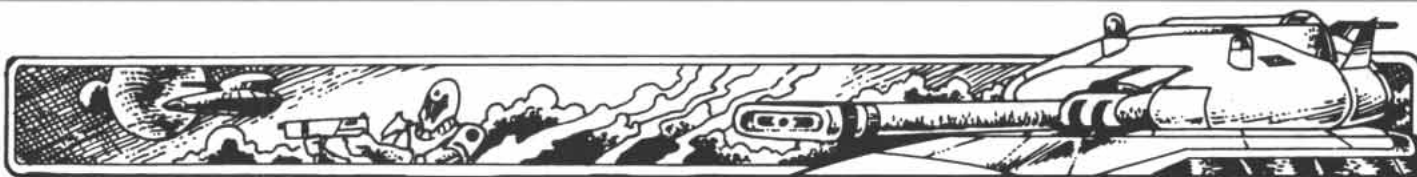
7.512 Plus Penetration Weapons: Heavier weapons (those with a plus following their damage value) are called plus penetration weapons because their actual penetration value is the value listed *plus* the roll of 2D6. This roll is made separately for each hit scored by the weapon.

7.52 Personnel Stands: Some personnel stands are equipped with body armor. Body armor gives the personnel stand wearing it a saving throw whenever a hit is scored. In addition, hard cover can provide the same benefit.

7.521 Saving Throws: Whenever a personnel stand wearing body armor or behind hard cover is hit, the owning player rolls 1D6. If the roll is greater than the unit's saving throw number, the hit is suffered normally. If the roll is equal to or less than the unit's saving throw number, the hit has no effect. *However, a die roll of 6 always fails.*

7.522 Armor Saving Throw Numbers: The listed saving throw number is the **Traveller** armor value of the protection worn. If the armor only covers part of the target (as with a flak jacket or bullet proof vest), the saving throw number is halved, rounding down.

7.523 Cover Saving Throw Numbers: Certain types of hard cover provide a saving throw, as noted below.

Cover Saving Throw Number

Cover	Save Number
Wood building	1
Entrenchment, stone or masonry structure	2
Reinforced concrete structure	3
Crew or passengers in open armored vehicle	3

Troops wearing body armor and behind hard cover add their saving throw numbers together.

7.524 Penetration: The saving throw number is reduced by the penetration value of the firing weapon. Subtract the penetration of the firing weapon from the saving throw value of the target to get the final saving throw number. If the final number is less than 1, no saving throw is made.

7.5241 "Nil" Penetration Weapons: Some weapons have a penetration rating of "nil." Double the saving throw number of personnel stands when fired at by nil penetration weapons.

7.5242 Plus Penetration Weapons: Plus penetration weapons automatically cause one casualty on protected troops when they hit. The saving throw (if one is possible after subtracting the weapon's penetration) is made to avoid a second casualty.

7.53 Vehicles: All vehicles have some armor protection, even if from the sheet metal body. Vehicles do not receive saving throws. Instead, vehicles are unaffected by any direct fire hits which do not penetrate the armor.

7.531 Vehicle Armor: The unit data card should list the armor of the vehicle on a variety of faces. Vehicles attacked from the front 120° arc of the vehicle are protected by their front armor. Vehicles attacked from the rear 120° arc are protected by their rear armor. Attacks from outside those arc are protected against by side armor. Belly and deck armor are used only in special cases detailed later.

7.532 Penetration: Hits with penetrations less than or equal to the armor value have no effect.

If the penetration is greater than the armor by 1, 2 or 3, then the AFV takes one hit.

If the penetration is greater than the armor value by 4, 5 or 6, then two hits are taken by the AFV.

If the penetration value is greater by 7 or more, then the AFV, regardless of type, is eliminated in a particularly spectacular fashion, and is destroyed. Destroyed AFVs are marked with the burning vehicle counter supplied.

7.6 Exploding Rounds

Some types of ammunition explode on impact. Direct fire with exploding rounds is resolved using the same steps as above—the firing player rolls to see if a direct hit was obtained and then determines whether it caused any damage. However, whether the round scores a direct hit on the intended target or not, it will land in the general area of where it was fired, explode and potentially cause additional damage, both to the intended target and to any other stands within the burst area of the round.

7.61 Definitions: The effects of an explosive round are defined by its burst radius and its explosive power. Both values will be recorded on the unit's data card.

7.611 Burst Radius: The burst radius of a round is expressed in centimeters. All targets completely or partially inside the burst radius are attacked by the explosion. Each such target is attacked separately. When converting **Traveller** weapons to **Striker** terms, divide the round's primary burst radius (in meters) by 10 and round all fractions up.

7.612 Explosive Power: Stands within the burst radius of the round are attacked using the round's explosive power. Explosive power is the number or less that the firing player must roll on a D20 to cause a hit on the target, absent any modifiers to the roll for target type or target cover. Only vehicles and personnel stands are affected by the burst radius of an exploding round; towed weapons are not (although their crews are).

7.62 Target Modifiers: The explosive power of the round may be modified down due to either target type (vehicle) or target cover, or by both if both conditions apply.

7.621 Vehicles: Vehicles, particularly armored vehicles, enjoy a modifier against explosive damage. This modifier is recorded on the unit data card and applies to any stands carried as passengers as well.

7.622 Cover: Stands in certain types of covering terrain also receive an explosive power modifier, as shown on the following table.

Cover Explosive Power Modifier

Terrain	Modifier
Wooden building	–4
Entrenchment	–6
Entrenchment with overhead cover	–8
Stone or cement building	–8
Pillbox	–10

7.63 Example: The defender fires two exploding rounds at an enemy armored vehicle. One round hits the vehicle directly, while the other misses. Using the penetration value for the round, the firing player resolves the direct fire hit normally.

After the direct hit has been resolved, the firing player next determines the effect of the explosion of the two rounds. Even though the second round missed (i.e., did not score a direct hit on the tank), it is assumed to strike the ground very near the tank, and the actual aiming point is used as the center of its burst radius.

The firing player measures all around the tank and discovers that two personnel stands are in the radius. One of the stands is in an entrenchment, while the other is in the open. The tank is in the open and has an explosive power modifier of –5. The infantry in the entrenchment has a modifier of –6. The infantry in the open has no modifier.

The exploding rounds have an explosive power of 8. Since there are two rounds exploding, the firing player will roll two dice for hits on each stand in the burst radius. He will roll two dice for 8s or less against the infantry in the open, two dice for 2 or less for hits on the infantry in entrenchments, and two dice for 3 or less for hits on the tank. Note that this is in addition to any damage the direct hit on the tank may have caused.

7.7 Effects of Fire

Fire combat affects the target stand by inflicting hits. In addition, regardless of whether the stand fired at was hit, all stands in a group fired at must check morale (see Rule 9.1). The effects of any hits on a stand depend on whether the stand being hit was a personnel stand, vehicle or towed weapon.

7.71 Definition of Terms: The following terms are used to describe the effects of hits on stands:

7.711 Forced Back: A stand that is forced back must immediately move away from the closest visible enemy stand. Note that this may not be the stand whose fire caused the forceback. It must move as directly away from the enemy as possible, as long as it does not move toward any other enemy stands. If no enemy stand is visible, a forced-back stand moves toward the nearest cover. A forced-back stand must move its full cross-country movement allowance, but it may stop when it reaches cover. A stand that starts in cover may not be forced back out of cover, but it may be forced back deeper into that cover, and thus out of sight of an enemy stand. A forced-back stand is also pinned.

If a gun crew is forced back while it is adjacent to its towed weapon and that weapon's transport, it may limber the weapon with no movement penalty, then move the weapon with the crew during the forceback. If no transport is present, the weapon must be abandoned. Abandoned guns contacted by enemy stands are eliminated.

7.712 Eliminated: A personnel stand that is eliminated is removed from the playing surface. It is then available for

regrouping and may thus return to play.

A vehicle that is eliminated through cumulative fire is disabled and remains on the table even though it is no longer in play, its status indicated by the "disabled" marker placed upon it. Vehicles which are disabled may be repaired in the course of a campaign game.

Passengers in or on a vehicle that is eliminated take one hit per stand, and dismount.

7.713 Destroyed: A vehicle eliminated by the effects of a penetration by 7 or more points (noted above), a flamethrower attack, or a single aerial bomb is destroyed and remains on the table, even though it is no longer in play. Its status is indicated by placing a burning wreck marker upon it. Vehicles which are destroyed may not be repaired in the course of a campaign game.

Passengers in or on a vehicle that is destroyed take one hit per stand, and dismount.

7.72 Personnel Stands: The effect of hits on a personnel stand is dependent upon the troop quality of the stand.

Novice: A Novice stand is eliminated when it takes its first hit.

Experienced: An Experienced stand is forced back when it takes its first hit. On its second hit, it is eliminated. All hits inflicted in the same Fire Phase take effect at the end of that Fire Phase. In other words, wait until all fire has been completed before implementing results.

Veteran: A Veteran stand suffers no effect from its first hit. If hit a second time, it is forced back. If hit a third time, it is eliminated and removed from play. All hits inflicted in the same Fire Phase take effect at the end of that Fire Phase.

Elite: An Elite stand suffers no effect from its first or second hit. If hit a third time, it is forced back. If hit a fourth time, it is eliminated. All hits inflicted in the same Fire Phase take effect at the end of that Fire Phase.

7.73 Vehicle Stands: The effect of a hit on a vehicle stand (a vehicle model) is dependent upon its armor value, as well as on the troop quality of the stand.

The cumulative effect of hits is the same as for personnel stands: The troop quality of the AFV stand being hit determines the effect of the hit(s). Thus, a Novice AFV is always eliminated by its first hit, regardless of the actual penetration. A Veteran AFV ignores its first such hit from a penetration value of 1 to 3, and is forced back on its second such hit.

Eliminated vehicles are left on the playing surface (since they block line of sight) but are specially marked.

7.731 Command Personnel in Vehicles: If a command vehicle is eliminated, its command personnel may switch to an adjacent vehicle at the start of a Command Phase. If a command vehicle is destroyed, however, the command personnel are eliminated.

7.74 Towed Weapons: Normally, hits inflicted on towed weapons are taken by the gun crew stands. However, in the event that they take a direct hit from a plus penetration weapon, the weapon that was hit is destroyed, even though the gun crew stand may still remain in play.
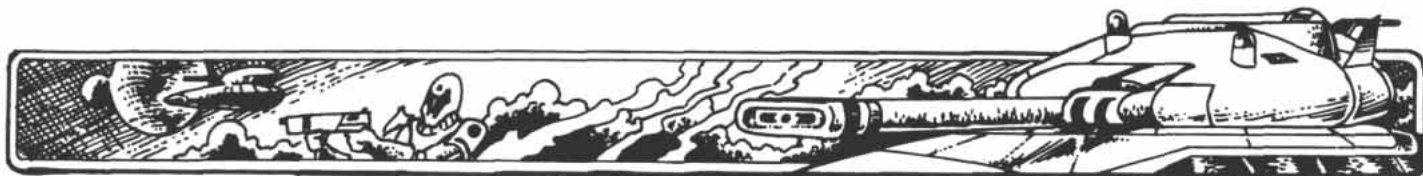
7.75 Marking Hits: Hits are best marked with the counters provided with the game, using the following code:

Counter Codes

Counter	Code
Green marker	1st hit on Elite
Yellow marker	2nd hit on Elite
	1st hit on Veteran
Red marker	3rd hit on Elite
	2nd hit on Veteran
	1st hit on Experienced

So whenever a stand with a green hit marker on it takes another hit, the green marker is removed and replaced with a yellow marker. Whenever a stand with a yellow hit marker already on it is hit again, the yellow marker is removed and replaced with a red marker. Whenever a stand with a red hit marker already on it is hit again, the stand is eliminated.

Note that stands which receive a red hit marker are forced back and pinned, regardless of their experience level. Some players may wish to mark disabled vehicles with tufts of white cotton and burning vehicles with tufts of black cotton, for increased visual effect.

7.8 Limitations on Fire

The following limitations exist on all types of fire.

7.81 Range and Line of Sight: An eligible stand may only use direct fire at visible targets if it is both in its line of sight and within its range.

If line of sight does not exist, no fire is allowed. If the weapon is out of range, then the fire is carried out, but has no effect on the intended target.

7.82 Mount Weapons: All weapons fired from a mount (such as a tripod mount or a mortar fired from a bipod) must be stationary to fire.

7.83 Towed Weapons: All towed weapons must be unlimbered in order to fire. Some towed weapons may take more than one Movement Phase to unlimber.

7.84 Restricted Field of Fire Stands: Stands with restricted fields of fire may only engage targets which are to their front facing. The following have restricted fields of fire:

• All vehicle weapons not mounted in turrets or on open pintle mounts.
• All towed weapons.

Stands with all-around fields of fire may fire at targets through any of their facings. The following have all around fields of fire:

• Personnel stands.
• All vehicle weapons in turrets.

7.85 Vehicle Passengers: All vehicle passengers, including stands that are being transported on AFVs, may only fire in the Final Fire sub-phase.

7.86 Hull Weapons: Hull weapons are mounted in the hull of a vehicle, as listed on unit data charts. If a vehicle is in a hull down position in regard to another stand, the vehicle's hull weapons may not fire at that stand.

7.87 Turret Weapons: All turret mounted weapons of a vehicle must be fired at the same target. A vehicle may not fire its main turret gun at one target, and engage another target with its turret machineguns, for example.

7.88 Multiple Weapons: Some personnel stands have multiple weapons. A fireteam might, for example, be equipped with gauss rifles as the team's primary weapon but also have RAM rifle grenades and a plasma bazooka as an integral antitank weapon.

In general, a personnel stand may only fire one weapon at a time. A stand may fire an integral antitank weapon as well as the stand's principal armament, but the ROF of both weapons is halved, rounding fractions down (but never reducing the ROF to zero).

Hand grenades are an exception to this. A stand may always throw hand grenades (if in range) in addition to firing the stand's primary weapon, at no ROF penalty.

7.89 Limited Ammunition: For purposes of the basic game, all vehicles, towed weapons and personnel stands are assumed to have unlimited ammunition for their main weapons and for all small arms. Secondary weapons, such as rifle grenades or integral antitank weapons, or specialized weapons, such as **Traveller** launchers, may have a limited number of shots available.

Troops usually carry only one Fire Phase worth of grenades, so each stand can fire grenades only once per scenario.

Integral weapons (those carried by a fireteam in addition to their main weapons) usually only have ammunition for two turns worth of fire.

So, for example, an infantry stand with an integral assault rocket launcher (ARL) would have unlimited ammunition for its small arms and two turns worth of fire for its ARL. A stand identified as an ARL stand, on the other hand, would have unlimited shots for its ARL.

Tac missiles have the number of rounds indicated in the data annex.

For more detailed ammunition rules, consult the supply and ammunition rules in the campaign section.

7.9 Tac Missiles

In the basic game, there are two types of tactical (Tac) missiles: operator-guided and target-designated. Operator-guided missiles are flown to the target by an operator who has a direct line of sight to the target. Target-designated missiles are fired from a distant launcher and home on the reflected radiation of a target designator used by an observer with a direct line of sight to the target.

Target-designated missiles are not considered direct fire, and are covered later under the heading "precision indirect fire." Operator-guided missiles, however, are treated as direct fire.

7.91 Range and Accuracy: Tac missiles have only a single range, which is the missile's maximum effective range. All targets within that range are attacked as if at close range. For this reason, Tac missiles are listed only with short range performance information.

RULE 8: INDIRECT FIRE

There are two types of indirect fire: precision and area.

Precision indirect fire consists of an observer with a direct line of sight to the target guiding in an individual round fired from a separate launcher. The round is usually a missile, but could also be a guided bomb or artillery shell. Meson gun fire is also treated as precision indirect fire. The observer usually uses some sort of target designator, like a laser, but may instead actually remotely pilot the round to its target.

Area indirect fire consists of a launcher firing unguided rounds (usually explosive) into the area of the target. An observer directs the fire. Usually the observer is considerably closer to the target than is the firing weapon, but not always. Certain weapons which do not have a direct fire capability (such as mortars and artillery rockets) often engage targets directly observed by the gun crew. Since this is high arcing fire, though, it is considered a form of indirect area fire.

8.1 Precision Fire

8.11 Observation: Observers for precision indirect fire must have an unobstructed line of sight to the target and a means of directing the ordnance to the target. In most cases this consists of a laser designator, although in early Tac missiles this consists of the missile launcher/control system itself. The unit data card will indicate which stands can observe for which precision indirect fire weapons.

If the observer of a precision indirect fire mission is eliminated or forced back by fire during a turn before the precision indirect fire is resolved, it automatically misses.

8.12 Accuracy: Precision indirect fire is resolved exactly as direct fire, using the accuracy and range bands of the observer's laser designator or, if it is controlled by the launcher, using the accuracy and range bands of the vision system used (usually "eyeball"). Range is measured from the observer to the target.

If the observer received any sort of movement order during the turn, the range is treated as one range band longer. That is, short becomes medium, medium becomes long, etc.

8.13 Restrictions: The launcher for a precision indirect fire attack must be issued a *no order* for it to fire (or must be mounted on an aircraft, or mounted on a vehicle with good enough stabilization for the vehicle to be considered as having a *no order* for firing purposes).

The target must be within the maximum range of the launcher when the fire takes place.

The launcher must fire in the Opportunity Fire sub-phase. This will affect enemy unit spotting of it if they have a direct line of sight to it. If the launcher is destroyed before its attack is resolved, the missile or round is still in the air and may still hit. Only if the observer is part of the crew of the launcher (as with early Tac missiles) will it be affected by hits suffered before the attack is resolved.

8.14 Sequence of Fire: Precision indirect fire takes place one sub-phase later in the Fire Phase than it normally would based on the order given the observer. That is, precision fire directed by an observer with *no order* would take place in the General

Fire sub-phase. Precision fire directed by an observer with a *cautious advance* order would take place in the Final Fire sub-phase. Order of fire within the sub-phase is based on the initiative of either the observer or the launcher crew, whichever is lower.

Precision indirect fire which takes place in the Final Fire sub-phase is not subject to the normal range limitation of final fire.

8.2 Area Fire

8.21 Observation: Observers for area indirect fire must have an unobstructed line of sight to the target and a means of directing the fire mission to the target. In most cases, this consists of a communication link back to the firing weapon, although in some cases the gun crew may be observing for its own fire.

If the observer of an area indirect fire mission is eliminated or forced back by fire during a turn before the indirect fire mission is resolved, it automatically misses.

There are two types of observers for area indirect fire missions: dedicated forward observers and temporary spotters.

8.211 Dedicated Forward Observers: The unit data card will indicate which stands are dedicated forward observers for which indirect fire weapons. There is usually one dedicated forward observer for every unit of two or more area indirect fire weapons.

Dedicated forward observers must have been given *no order* in order to call a fire mission. All fire missions called by dedicated forward observers are resolved during the General Fire sub-phase. The owning player decides during the sub-phase where the mission is desired and then resolves it.

8.212 Temporary Spotters: Any platoon or higher command stand can function as a temporary spotter if it has a communication link to the indirect fire weapon.

All spotter stands must be given *no order* in order to call a fire mission. Spotters may only control fire from one unit at a time. To do so, during the Command Phase, the owning player must record the following information for each mission:

1. Which unit is firing the mission.
2. What type of round it is firing.
3. The geographic target point on the playing surface.
4. Sheaf pattern.
5. The spotter for the mission.

Temporary spotters must have been given *no order* in order to call a fire mission. All fire missions called by temporary spotters are resolved during the Final Fire sub-phase, even though it is plotted in the Command Phase

8.22 Sheaf Patterns: All indirect area fire missions of more than one firing weapon or where the firing weapon has a rate of fire greater than 1 are fired using a sheaf to show how the rounds will fall in relation to the target. Two types are used: a converged sheaf where all rounds impact on the same point, or a dispersed sheaf where the rounds are placed to cover a wider area. If fire is being plotted at a moving target, then a converged sheaf pattern may not be used.

Sheaf patterns may be cut out of any convenient material (paper, thin cardstock, acetate or plastic). They are always circles, and their dimensions vary with the burst radii of the individual weapons. Consult the unit data card for specific dimensions.

8.221 Converged Sheaf: A converged sheaf means that all shots fired for this mission land on the same target point. If the fire is on target, then a single template is used, with all rounds fired landing in that area.

Example: A battery of three mortars, each with an ROF of 2, fire a converged sheaf. All six rounds fired land in the same place, and any target inside the sheaf is attacked by six separate die rolls.

A converged sheaf may not be used against a moving target. If a converged sheaf is fired at a stationary target and a moving unit has ended its movement within the burst area of the sheaf, only one round (one die) is used to attack the moving target, while all rounds in the sheaf attack the stationary target.

8.222 Dispersed Sheaf: A dispersed sheaf means that the rounds fired for this mission are spread out over a wider area than in the converged sheaf. The templates for each weapon in the firing unit are placed adjacent to each other, perpendicular to the line of fire, and with the target point in the center of the templates.

For each stand firing in the unit with a dispersed sheaf, there must be an equivalent impact area. If the ROF of the unit is 2 or more, then additional impact areas may be added, or the additional rounds fired into the existing areas at the firing player's option.

Example: In the case of the mortar battery mentioned above, its dispersed sheaf could consist of three impact templates in a line, each with two rounds hitting, or it could consist of six impact templates in a line, each with one round hitting.

8.23 Accuracy: Accuracy is a function of troop quality and range. The hit number for the area fire mission is the long-range accuracy for spotters and medium-range accuracy for observers. Observers and spotters calling fire through a fire direction center (FDC), use the accuracy for the next closest range band (medium for spotters, short for dedicated observers).

If the mission is on target, its fire is resolved using the procedure under indirect fire effects. If the mission fails, then the rounds go wide of the target and have no effect on the game.

Example: A Veteran forward observer stand is operating under a *no order*. The owning player declares during the General Fire sub-phase its planned point of impact, rounds fired and sheaf. As the stand is a Veteran forward observer stand, its medium-range accuracy is 6. Therefore, for the mission to fall as planned, the firing player must roll a 6 or less on 1D20.

Once a mission has been fired, it may be adjusted during the course of subsequent turns.

8.231 Continued Missions: Once an indirect area fire mission has been fired, it may continue to fall on the aiming point for the following turn as long as the spotter has a direct line of sight to the impact point. No further die roll is needed to keep the fire on that point.

Thus, if a mission that failed due to the die roll is continued on the next turn, it will automatically fall on that point without a further die roll needed.

8.232 Shifting Fire: Once a mission is on target, its target point may be shifted up to 10 cm (in any direction) and remain on target, provided the observer-spotter is operating under *no order* and has a line of sight to the new target impact point.

No new accuracy die roll is required, providing the impact point is moved 10 cm or less. Shifts of more than 10 cm are treated as if they were new fire missions.

8.24 Sequence of Fire: Area indirect fire takes place during either the General Fire sub-phase or the Final Fire sub-phase, depending on the type of observer used. Order of fire within the sub-phase is based on the initiative of either the observer or the launcher crew, whichever is lower.

Area indirect fire which takes place in the Final Fire sub-phase is not subject to the normal range limitation of final fire.

8.25 Limitations: The following limitations exist on stands engaging in indirect fire:

8.251 Movement: Any stand which is carrying out indirect fire must be stationary during the entire turn. It must be operating under a *no order* order for the turn. In addition, if it is a towed weapon, it must have been unlimbered before the start of the Command Phase.

8.252 Orders: A firing unit may only fire missions for one observer/spotter a turn. If more than one fire mission is ordered, then the owning player must choose during the Command Phase which mission the stand will fire. All other orders will be ignored.

8.253 Range: The IDF (indirect fire) data on the unit card (and in the data annexes to this book) lists a weapon's maximum indirect fire range. In addition, guns, howitzers and rocket launchers may not conduct indirect area fire at targets closer than one-tenth of their maximum range.

Mortars may not conduct indirect area fire attacks at targets closer than one-twentieth of their maximum range.

8.254 Fire Direction Centers: A fire direction center (FDC) is required if more than one weapon is firing the same fire mission (i.e., firing at the same target and directed by a single observer/spotter). The FDC must be in communication with the observer and the firing weapons.

FDCs have an effective indirect fire range based on their tech levels. Fire may be conducted by area fire weapons at ranges longer than the FDC's effective range, but accuracy is resolved at one higher range band. This means that spotters use long-range accuracy, and dedicated observers use medium-range accuracy.

8.3 Indirect Fire Special Rules

A number of special rules affect indirect fire.

8.31 Indirect Area Fire in the Opportunity Fire Sub-Phase: A stand may only conduct indirect fire in the Opportu-

nity Fire sub-phase if it successfully fired at the same target point in the previous turn. If ordered to continue firing at the same target point during this turn, it may fire during the Opportunity Fire sub-phase at any stand that moves through its impact area. If the target point is shifted, opportunity fire does not occur.

8.33 Ranging Fire: A player may elect to use ranging fire in order to place his fire mission. Ranging fire is carried out in the same manner as for indirect fire mission, so a *no order* order must be issued. Spotters must plot it during the Command Phase, while forward observers may mark it during the General Fire sub-phase.

Ranging shots are always on target but do no damage and use no ammunition for the turn they are carried out. A puff of smoke should be placed on the table, however, to show that a marking shell was fired at the target point.

A ranging shot allows the same observer/spotter to call a fire mission from the same firing unit on the same target point next turn without need for an accuracy die roll. The mission is always on target.

8.34 Preplotted Defensive Area Fire: In a scenario when one side is holding a defensive position and has been in place for several hours, the referee may allow each dedicated forward observer stand to select up to six geographic points on which to preplot area fire for their parent unit. The plot must be of an actual geographic point (a village, crossroads, bridge, hilltop), and include the sheaf to be used for that fire mission.

If used in the course of a game, fire missions called on these points do not have to be rolled for accuracy; they automatically hit the chosen point of impact.

8.36 Multiple Control: Forward observers may control the fire of more than their parent firing unit under certain conditions. If they are working with the assistance of an artillery staff stand which has been issued a *no order* and to whose headquarters the other units have been subordinated, they may bring fire from more than one battery on the same impact point. Only one roll is made for accuracy, and it applies to all units firing at that point.

All plotting for this mission is done as before, with the exception that the number of units to fire must be listed.

8.4 Indirect Fire Smoke

Indirect fire weapons with smoke rounds may create smoke screens. The indirect fire procedure is followed for firing smoke missions with the difference that accuracy is not checked, as smoke missions are always on target.

8.41 Smoke Templates: Smoke templates have the same width as the round's HE template, but the length is three times the normal width. Thus, a smoke template for an HE round with a burst of 5 cm would have a smoke template 5 cm wide and 15 cm long. Smoke templates are always placed so that the length runs in a downwind direction from the point where the round was targeted. Additional rounds fired at the point of impact lengthen the screen, so that a screen made up of three rounds as described above would be 45 cm in length.

8.42 Duration of Indirect Fire Smoke: Indirect fire smoke is placed when the fire mission would normally arrive, and then it does not actually block line of sight until the beginning of the next turn. The smoke screen remains in effect for the entire following turn.

Note that smoke will therefore not block line of sight in the turn in which it is first placed, but will affect line of sight on the following turn.
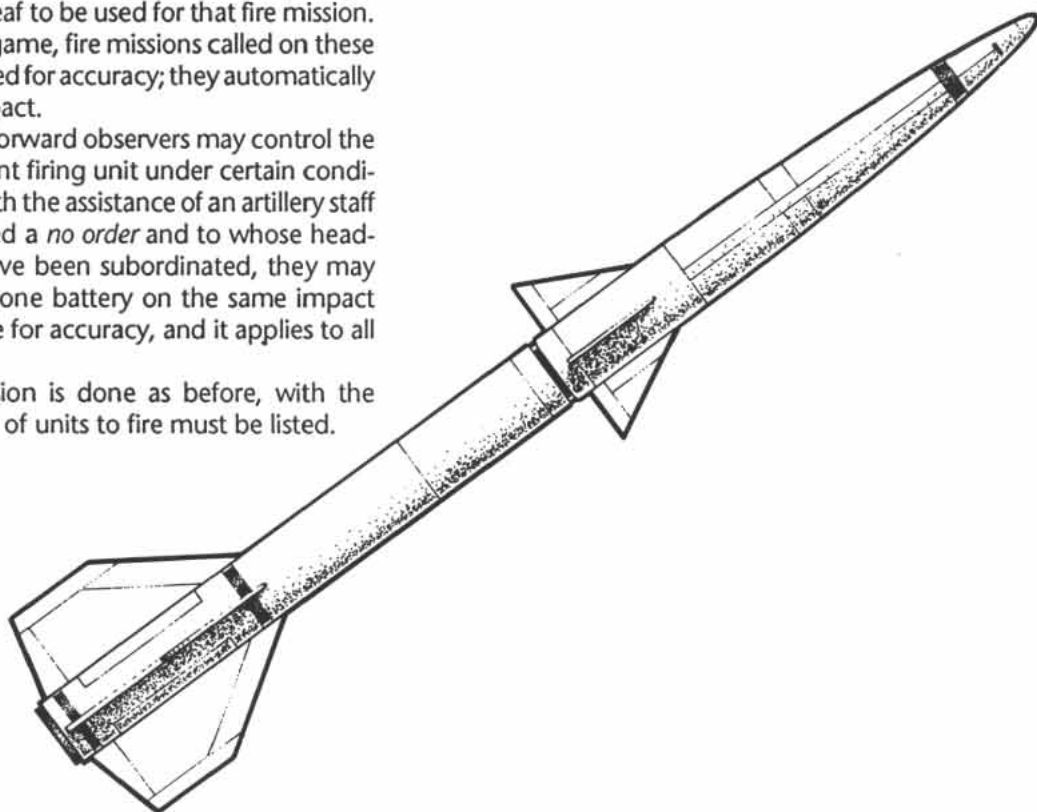
RULE 9: MORALE

After the Fire Phase is finished, all stands which were fired at during the course of the turn must check morale. All stands start the game with a morale number (ranging up to 20), which may be changed as the game progresses due to losses and enemy action.

In addition, all *rally* and *regroup* orders are carried out at the end of the Morale Phase.

9.1 How Morale is Checked

All stands check morale as a group. For this purpose, a group consists of those stands operating under the same order chit, even if they may no longer be within 15 cm of each other.

As a practical matter, this usually means a command stand and all stands immediately subordinate to it. Stands must check even if the fire could not have caused any damage according to the rules (i.e., heavily armored vehicles which were fired at by small arms with a penetration of "nil" still must check morale). In addition, if any stand in a group is able to see a friendly stand eliminated, then the group must check morale. No matter what the reason is, no group will check morale more than once in the Morale Phase of a given turn.

Example: A gun crew, an attached engineer stand, an MG stand and an infantry stand are all operating under the direct command of a platoon commander. For game purposes, if any stand in the group has been fired at, the entire group must check morale.

9.11 Computing Morale: Compute the current morale of the group by checking with the following list of modifiers, and add or subtract any that apply.

9.12 Checking Morale: Roll 1D20 for each group which is checking morale. Note that different stands in the same group may have different morale numbers. If this is the case, only one die is rolled, and its result applies to all checks by the group. If the number rolled is equal to or less than their modified morale, the stands successfully pass the morale check. If the number rolled is higher, then they fail the check. The number by which the check is failed determines what happens to the unit.

Morale Modifiers

Condition	Modifier
Each stand/vehicle in the group hit this turn*	–1
Each stand/vehicle in group eliminated/destroyed this turn	–2
Stand is pinned	–2
Each friendly group within sight eliminated this turn	–4
Any enemy stand/armed vehicle within 25 cm	–4
Unit is operating under a travel order	–4
Any permanent morale modifiers	–1, –2, –3 or –4
Stand is under cover	+4

*If the stand is hit more than once in the same turn, the modifier remains –1, regardless of the total number of hits taken by the stand. Thus, an Elite stand which takes three hits still causes the unit only a –1 modifier.

Example: A Veteran infantry platoon, morale 16, has a command infantry stand, two infantry stands, and an MG stand operating together. The MG stand is left behind in cover to provide covering fire, while the remaining three stands press forward across an open field. During the Fire Phase, a total of four hits were taken. The command infantry stand and one infantry stand each took one hit. The second infantry stand took two hits, which forced it back, pinned, into cover. All stands are within 25 cm of enemy infantry.

The base morale number is 16, modified as follows: –3 as three stands were hit, –4 as enemy personnel are within 25 cm, so the modified morale number is a 9. The MG stand is in cover, so its morale is up 4 to 13. The forced-back stand is also in cover, but is pinned, so that its morale number is 11. For all stands to pass morale, a 9 or less is needed.

If a 10 was rolled, the MG stand and forced-back stand would pass morale, while the other two stands would fail by 1, and go pinned.

9.2 Morale Results

If the die roll is equal to or less than the modified morale of the stand, the stand passes morale. If the die roll is greater than the modified morale, the stand fails morale.

9.21 Pinned: If the die roll is 1, 2 or 3 higher than the modified morale of the stand, then that stand is pinned. Pinned stands may never move toward the enemy, and may only fire in the Final Fire sub-hase. The fire value of all attacks against pinned personnel stands is halved. The halving is done after all other modifiers to fire have been calculated. Pinned stands check morale with a –1 modifier.

When a unit receives a pin, either through morale or through fire, place a P2 marker next to it. At the end of the each Close Assault Phase, remove all P1 chits and flip each P2 chit over to the P1 side. P2 and P1 chits have the same effect. If a stand is pinned and already has a P2 or P1 chit, replace the chit with a P2 chit.

Rally orders are not needed to recover from the effects of a pin. Unless an additional pin result is collected, a unit recovers from a pin at the end of the Melee Phase when the P1 chit is removed.

9.22 Forced Back: If the die roll is 4, 5, or 6 higher than the modified morale of the stand, then the stand is forced back, pinned, and suffers a *permanent* morale reduction of 1. The morale modifier remains with the stand until it can be rallied. This condition is represented by the use of the morale modifier markers provided (Morale –1, etc.).

9.23 Demoralized: If the die roll is 7, 8, or 9 higher than the modified morale of the stand, then the stand is demoralized and suffers a *permanent* morale reduction of 2. A demoralized stand keeps a P2 marker until rallied, with the additional requirement that it may not fire or move unless it is not in cover and it can see enemy units. If unable to move without moving closer to an enemy unit, it is eliminated. This condition is represented by the use of the demoralized markers and the morale modifier markers provided (Morale –2, etc.).

If a demoralized stand receives another demoralized morale result, it is eliminated.

9.24 Eliminated: If the die roll is 10 or higher than the modified morale of the stand, then the stand is eliminated. If any enemy stands are within 10 inches of it when that happens, the eliminated stands are considered to have surrendered and become prisoners. Prisoner stands are removed from play immediately, but are available for re-grouping as if they were casualty stands (the assumption here is that not all of the personnel are captured, and some make their way back to be put into battle again).

9.3 *Rally* Orders

Rally orders are placed during the Command Phase, but are not carried out until the Morale Phase. A *rally* order placed next to a stand or group of stands allows any demoralized stands within 6 inches to recover from being demoralized. In addition, any nondemoralized stands in the area with a permanent morale loss can recover 1 point.

Stands operating under a *rally* order may not move or fire during the turn that they receive the order. A demoralized stand, which has an permanent morale modifier of –2, would need *rally* orders issued for three successive turns to recover from demoralization.

9.4 *Regroup* Orders

Regroup orders are placed during the Command Phase, but are not carried out until the Morale Phase. A *regroup* order is issued to a pair of eliminated personnel stands, and allows one of them to return to the game. (The assumption is that "eliminated" means no longer effective as a fighting force, not completely destroyed, and regrouping represents collection and reorganization of strag-glers.) A *regroup* order only affects one pair of stands at a time. The stands to whom the order is issued must have been subordinate to the stand issuing the order, and exactly the same type of stand (i.e., two infantry stands, two battledress stands, two crew stands, etc.). One of the stands is returned to play by placing it next to the stand issuing the order, while the other is permanently removed from play and may not be used again for the purposes of a *regroup* order.

Stands operating under a *regroup* order may not move or fire during the turn that they receive the order.

Vehicles may not be regrouped.

Example: A Coalition company commander has lost two com-mand battledress stands, one SSL stand and three battledress infantry stands so far. He can issue a regroup order to the pair of command battledress stands, or to two of the battledress infantry stands. He may not regroup the SSL stand (he has only lost one, and a pair of stands is needed to regroup). He must wait until he has lost a fourth battledress infantry stand in order to regroup the third.
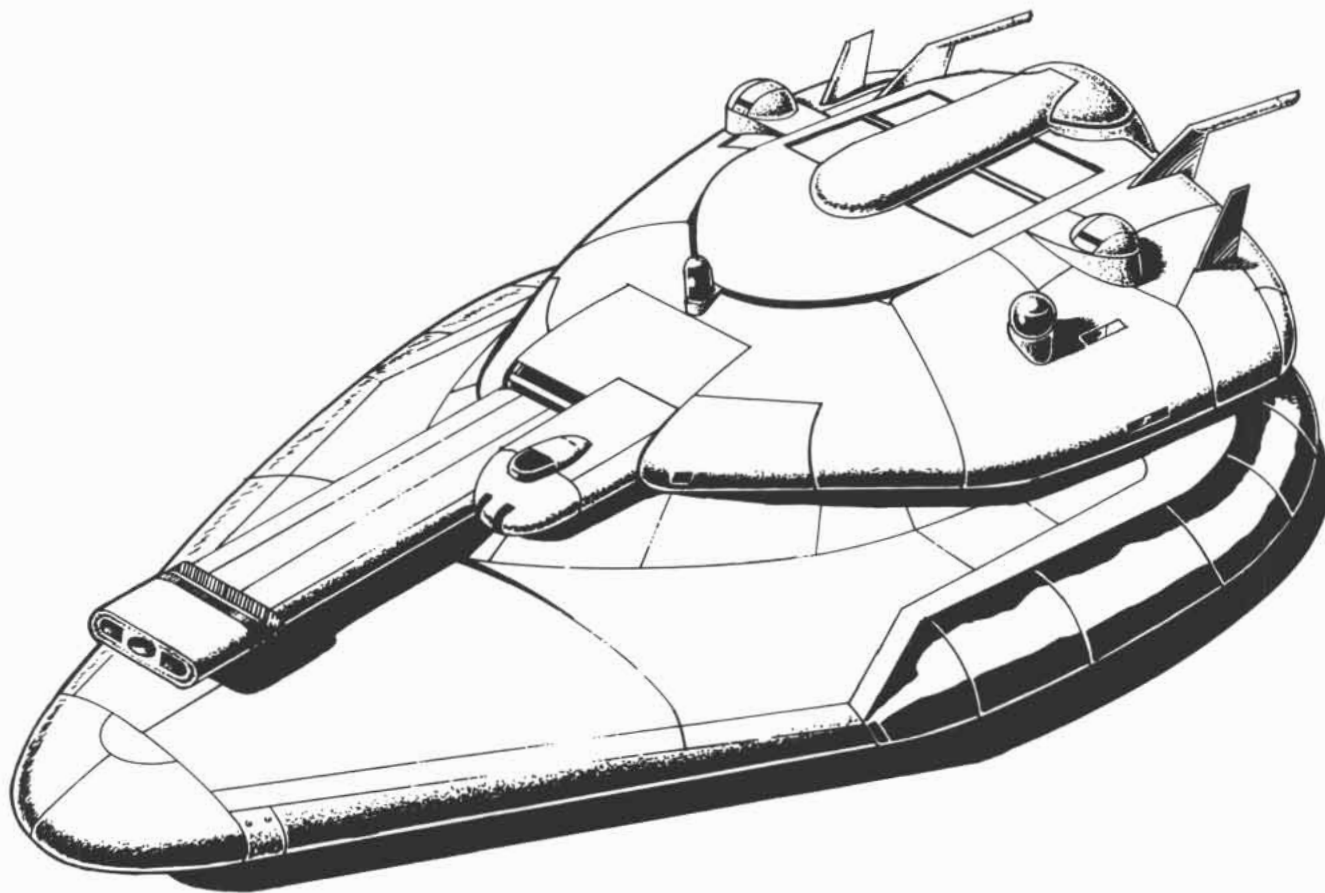
RULE 10: MELEES

Melees are resolved in the Melee Phase. Melees consist of hand-to-hand struggles between personnel stands, usually using melee weapons of some sort.

10.1 Setting Up Melees

All stands engaging in melee must be in contact with the enemy stand they are assaulting. Stands attempting to move into melee combat must have passed morale. Each individual melee involves one or more personnel stand against one enemy personnel stand. When opposing players have several stands mutually in contact with each other, the players alternate, selecting one of their personnel stands, in contact, to melee one enemy stand. The players alternate this procedure until all involved stands resolve their melees. To determine who chooses, roll one die; high die roll wins.

Note that stands do not check morale after melees are carried out.

10.2 Resolving Melees

Each player rolls a die. Each player's die is modified as shown below.

The side with the lower modified die roll loses the melee. Each losing stand will suffer one hit and be forced back. If the modified die rolls are equal, then the melee has no effect.

Melee Modifiers

Stand Type	Modifier
Single-figure stand	−5
Heavy weapon crew stand	−5
Cavalry stand	+5
Each additional stand	+5
Melee only*	+2
Carrying shield	+2
Melee armored**	+save number
Regular armored	+twice save number
Higher morale	+difference

*Melee-only troops are those which are without firearms and are equipped exclusively for melees, such as low-tech armored knights or primitive spearmen.

**Melee armored troops are those wearing armor useful against melee weapons but not useful against firearms. Melee weapon armor value is shown on the unit card in parentheses and does not provide a saving throw versus small arms.

Example: A native unarmored shield-carrying melee-only cavalry stand (morale 16) engages in melee combat with a light battledress-equipped single-figure infantry stand (morale 18).

The native cavalry adds 9 to its roll (+2 melee only, +2 shield, +5 cavalry).

The battledress infantry adds 7 to its roll (+12 for armor [2×6], +2 for morale, -5 for single-figure stand).

The native player rolls a 9, modified to a 18. The invading player rolls a 12, which is modified to a 19. The native cavalry stand takes a hit and is forced back.

10.3 Pin Marker Change

At the end of the each Melee Phase, remove all P1 chits from the table, then replace all P2 chits with P1s by flipping them over.
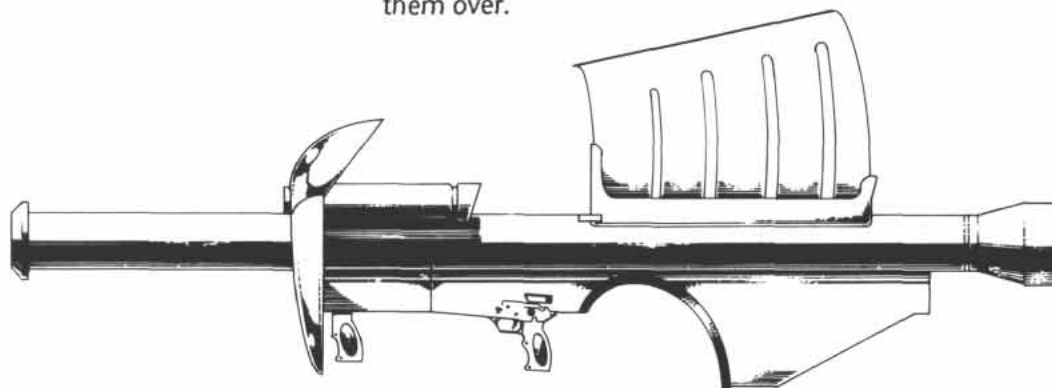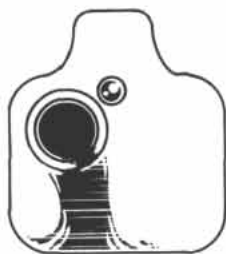
Advanced Rules

RULE 11: PLANETSCAPES

Striker is played out on a tabletop (also called the playing surface or board), using various miniature versions of terrain, such as model buildings and trees. The referee must ensure that all terrain features on the playing surface are clearly marked for the players. In particular, the edges of forests, woods, open woods, cover and towns need to be clearly represented on the tabletop (although precisely how this is accomplished is not important).

Terrain affects movement, line of sight and combat. The specific effects of the most common types of terrain are covered in the rules for each particular activity. A general summary and description of the types of terrain in the game follow.

11.1 Vegetation

11.11 Light Vegetation: A wooded area more easily traversed than forest or woods. Orchards, coconut plantations and lightly wooded meadows fall into this category.

11.12 Moderate Vegetation: A wooded area more open than forest or jungle, and thus more easily traversed. Fairly closely spaced trees still impose limits on movement and visibility.

11.13 Dense Vegetation: Tropical rainforest or other densely wooded terrain, difficult to traverse because of its large trees and dense undergrowth. Includes jungle and virgin forest.

11.14 Cover: Cover is a special case where the terrain reduces visibility without affecting movement. Examples include corn or wheat fields at harvest time, seven-foot-tall prairie grass, light brush, etc.

11.15 Heath: Heath is an area of brush-covered, uneven terrain. Any stand that is stationary in heath is treated as being in cover, although heath does not block line of sight. AFVs stationary in heath are treated as being hull down.

11.16 Hedgelines: Hedgelines are linear barriers of dense brush. Hedgelines may be freely crossed by all stands. A stand adjacent to a hedgeline treats the hedgeline as cover for any direct fire on the stand that crosses the hedgeline. A hedgeline does not block line of sight, but does provide cover for purposes of spotting.

11.2 Ground Surface

11.21 Broken: Broken ground consists of an uneven surface difficult for most vehicles to traverse and ample cover for personnel. Broken ground can be either natural, as in the case of lava fields or boulder fields, or it may be man-made, as in the case of walled and terraced vineyards.

11.22 Cliff, Escarpment: A cliff or escarpment represents a slope so extreme that all normal movement across it is prohibited. Such areas should be defined by the referee and noted on the referee's map before the game begins.

The referee may allow personnel stands (except bicycle and motorcycle stands) from mountain units or those trained in mountaineering (such as commandoes) to move into or through such an area, or may allow a conventional infantry unit to do so in a place where the referee determines that there is a path. The stands must use a *rapid advance* order while crossing such an area and will pay quadruple costs while doing so.

11.23 Contour Lines: As the playing surface is considered to be level unless otherwise indicated, contour lines are used to show changes in elevation. Contour lines can indicate the elevation of hills and ridges or the depressions for valleys and wadis. These can be represented by any convenient means.

11.24 Sand: An area consisting mostly of sandy terrain, such as can be found in beaches or certain desert areas.

11.25 Sand Dune: An expanse of sand blown by the wind into small ridges, also known as an erg.

11.26 Steep Slope: Steep slopes represent areas across which ground movement is only allowed by personnel stands.

11.27 Swamp: A marshy area, usually wooded. Wooded swamps affect visibility in the same way as ordinary woods.

11.28 Clear: All other areas of the tabletop.

11.3 Water Barriers

Water barriers present obstacles to movement due to their width and depth, and by the nature of their banks.

Boats may either be found locally (as determined by the referee) or supplied by engineering units. Points at which boats may be launched should be indicated on the referee's map in advance.

11.31 Bridges: Bridges span streams, canals and rivers. They should be classified before the scenario begins (as class I, II, III, IV, V or VI), but this information need not be made available to the players before play begins. Personnel may cross any type of bridge. A vehicle and towed weapons may only cross a bridge which has a class equal to or greater than the vehicle or weapon's weight classification. For movement purposes, bridges count as roads. Railway and monorail bridges are always class VI.

Bridges may be damaged or destroyed by engineers (see Rule 18.6) or explosions (see Rule 14.3). For every 3 points of damage taken, the bridge's rating is reduced by one level, so that a class IV bridge becomes a class III bridge when its damage value is reduced to 6. If this same class IV bridge took only 2 points of damage, it would still be treated as a class IV bridge. To be reduced to a class II bridge, it would have to take a total of 6 points of damage.

Bridges may be repaired by engineers (see Rule 18.23).

11.32 Rivers: A linear body of water which is wider then a creek and which can range from a minor waterway to a major waterway. Normally, rivers and canals may not be crossed by any stands except for amphibious vehicles and boats. The referee should determine (and sometimes let players know) if and where it can be forded, or if bridges exist which allow units to cross.

River banks should be rated as any of the slope types discussed in Rule 11.2 above, as this will affect the ability of amphibious vehicles to enter and exit the river.

11.33 Canal: A narrow, man-made waterway which may not be crossed except at a bridge.
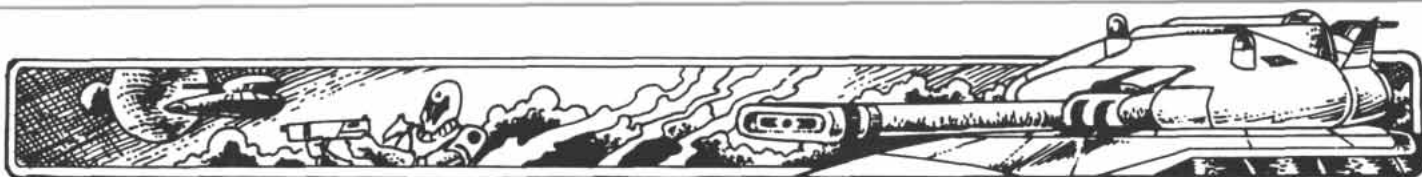
11.34 Creek or Stream: A linear body of water smaller than a river. These are usually less than one meter in depth and are usually fordable by personnel everywhere, but vehicles may require assistance in leveling the banks.

11.35 Ford: A shallow crossing place on a creek, stream, or river where the water is shallow and the banks a gentle enough slope to allow entrance and exit by vehicles.

11.36 Deep Water: Lakes, ponds and the sea are prohibited to all stands except those with amphibious capabilities, aquatic vessels or flying vehicles.

11.4 Structures

Structures are civilian man-made additions to the natural terrain.

11.41 Settlement: A built-up area. A settlement may consist of wood or masonry buildings, and be crossed by streets or highways. Towns are laid out in roughly square blocks which show the type of building and the capacity of the block in terms of stands. Each block should be represented by a model building (constructed to represent stone or wood, and of a style suitable to the time and place of the battle) for enhanced appearance.

Buildings may be destroyed by explosions, either from direct fire, area fire or engineer activity (see Rules 14.3 and 18.6).

11.411 Wooden Buildings: Wooden buildings have a damage value of 6. When 6 damage points are taken, the building is destroyed and is considered to be on fire. No stand may occupy a burning building. If a stand is occupying a wooden building when it is destroyed, it must move from the building in the next Movement Phase or be eliminated from play. Smoke from a burning building blocks line of sight through the building's position.

11.412 Masonry Buildings: Masonry (stone, brick or cement) buildings have a damage value of 15. When 15 damage points are taken, the building is destroyed and it becomes rubble. Likewise, stands occupying a stone/cement building when it is destroyed must move from the building in the next Movement Phase or be eliminated from play. They may reoccupy the rubble, however.

11.42 Rubble: The ruins of masonry buildings.

11.43 Stone Walls: These are man-made obstacles which may be represented for a given scenario and whose effects are determined by the referee for that scenario. They may or may not affect movement, cover or line of sight, at the referee's option and depending on their construction.

Low stone walls, for example, may usually be crossed by personnel stands without penalty. Class IV, V and VI tracked vehicles may cross a stone wall at the cost of half their movement allowance. Air cushion vehicles (and any flying vehicles) may cross stone walls at no cost. No other vehicles may cross stone walls.

A gap is created in a wall where a tracked crosses it, through which other vehicles may cross. A gap is treated as open terrain by personnel stands and tracked vehicles, but is still treated as impassible by wheeled vehicles.

A personnel stand adjacent to a wall is in cover from any direct fire which crosses the wall. A turreted vehicle adjacent to a wall is hull-down against any direct fire that crosses the wall.

A low stone wall does not block line of sight.

11.5 Transportation Lines

Transportation lines are additional man-made features on the planet's surface.

11.51 Highway, Road: A major, hard-surfaced roadway with good all-weather capability.

11.52 Railways: These represent railroad, monorail and maglev tracks. They are usually difficult for conventional vehicles to cross except at established crossing points and sometimes provide cover in the form of an elevated embankment.

11.53 Street: A minor roadway running through a settlement.

11.54 Trail, Dirt Road: A minor, unpaved roadway. In inclement weather this will turn to mud (see Rule 16.2).

11.55 Embankments: The need for roads or railroads to maintain a level bed usually, but not always, results in the creation of a causeway or rail embankment. As a rule, these are low, but provide some cover for infantry. Causeways and railroad embankments do not affect movement. A personnel stand adjacent to a causeway/embankment is in cover from any direct fire which crosses the causeway/embankment. A turreted vehicle adjacent to an embankment is hull-down against any direct fire that crosses the feature. A causeway/embankment does not block line of sight.

11.56 High Embankments: In some cases, railroads and roads run along embankments that are highly elevated over the surrounding terrain. Personnel stands pay a 5cm penalty to get on or off the high embankment. Vehicles may not get on or off a high embankment except at points where entrances exist, such as where a road crosses the embankment. While on the embankment, a vehicle may only move along it.

A high embankment blocks line of sight, but stands on the embankment are not considered on a higher elevation for purposes of spotting.

Stands on a high embankment during daylight are skylined for all direct fire from stands at the same or lower elevation. The hit difficulty is decreased by one level versus skylined stands.

11.57 Cuts: In certain circumstances, railroads and roads run though cuts. Cuts can be either shallow or deep, depending on the circumstances. Shallow cuts are bordered by steep slopes, but allow stands in the cut to be considered in cover (or hull down, if vehicles).

Deep cuts are also bordered by steep slopes as well, but are of such a depth that stands may not fire out of them. Stands in deep cuts may only be fired upon by indirect fire.

11.6 Fortifications

Fortifications cover such items as bunkers, pillboxes, entrenchments, barbed wire entanglements, antitank ditches

and the like. Some fortifications may be constructed during the course of a game (see Rule 15.5), but most are placed before play commences, as part of the scenario. For a stand to use one of these fortifications, it must occupy the fortification and be stationary. Cavalry, bicycle and motorcycle stands must dismount in order to use a fortification.

Fortifications provide protection from fire combat, as listed in the Fortification Fire Modifiers chart below. Against direct fire they provide a saving throw, while against explosions they provide a reduction in explosive power.

Fortification Fire Modifiers

Type	Direct Fire Save No.	Explosive Modifier
Entrenchment	2	–6
Weapons pit	2	–6
Bunker	2	–8
Pillbox	3	–10

11.61 Bunkers, Pillboxes and Entrenchments: Each bunker or pillbox may hold one personnel stand or a class I to III towed weapon and its crew (excluding recoilless weapons and multiple rocket launchers). Each inch of entrenchment may hold a personnel stand. Bunkers (which are entrenchments with overhead cover, pillboxes and entrenchments provide protection from fire in any direction.

Bunkers and pillboxes may be destroyed by engineers, artillery or aircraft. A bunker may take 6 damage points before it is destroyed. When destroyed, it is replaced by an entrenchment. A pillbox may take 12 damage points before it is destroyed. However once destroyed, it is removed from play and *not* replaced, becoming rubble instead.

Entrenchments are not damaged, only the stands in them.

11.62 Weapons Pits: A weapons pit may hold one towed weapon and its crew. It provides protection only to its front and flanks; it is open to its rear and provides no modifier to fire from this direction.

11.63 Tank Ramps: Tank ramps are weapons pits for vehicles, providing a hull-down position where one wouldn't ordinarily be. Turreted vehicles are hull down to fire from all directions when in a tank ramp. Vehicles may leave a tank ramp only by backing out of it, in a direction fixed by the construction of the ramp.

11.64 Antitank Ditches: Antitank ditches may not be crossed by wheeled or tracks vehicles without the aid of engineer stands (see Rule 18.524). Air cushion and all flying vehicles are unaffected by antitank ditches. Personnel stands may cross an antitank ditch, paying a cost of 10 cm to do so. Personnel stands within an antitank ditch are in cover.

11.65 Barbed Wire: Barbed wire may not be crossed by wheeled vehicles. Personnel stands adjacent to barbed wire may cross it if they receive a *cautious advance* order and spend their entire available movement allowance crossing the wire.

Tracked, air cushion and flying vehicles may cross barbed wire without any movement penalty, and tracked vehicles create a gap where they cross. A gap through barbed wire is treated as open terrain for all stands.
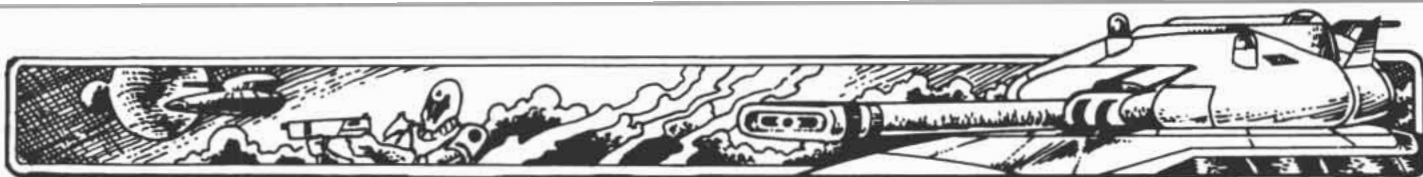
RULE 12: VEHICULAR TRANSPORT

Vehicles may carry personnel stands, and ground vehicles may carry towed weapons. Each vehicle capable of transporting stands and/or towing weapons should be noted on the unit's data card.

12.1 Transporting Personnel Stands

Personnel stands may be carried by dedicated transport vehicles (such as trucks and armored personnel carriers). They may ride on the top of armored fighting vehicles such as tanks, and they may be carried by transport considered part of the stand, such as bicycles or riding mounts.

12.11 Transport Vehicles: A vehicle capable of carrying personnel stands has a transport capacity which specifies the number of fireteam stands it may carry. A truck, with a capacity of three, for example, can carry three single stands. A double stand counts as two fireteam stands for transport purposes, while a single-figure stand counts as a half stand. There are two exceptions to this rule:

• Motorcycle, bicycle, grav cycle and cavalry stands, all of which are treated as personnel stands, may not be transported by other vehicles.

• Vehicles with a transport capacity of 1 or greater may carry one single-figure stand for free, in addition to any other stands transported. Thus, a truck with a capacity of 2 could carry two fireteam stands and a single-figure stand, or a double stand and a single-figure stand.

Personnel stands mount and dismount from transport vehicles during movement. It costs both the transport vehicle *and* the personnel stand half their movement allowance for the turn to mount or dismount. If either stand has moved before the mounting/dismounting takes place, that percentage of movement is lost by both the stand being transported and the transporting vehicle.

Example: Two infantry stands are ordered to carry out a rapid advance, which gives them a maximum move of 40 cm. They run to a medium truck sitting on a road which is 10 cm away. They spend half their move, or 20 cm, to mount the truck. The truck may now move, but as the stands it is transporting have used 30 cm, or 75% of their movement, it is limited to using 25% of its road move.

12.12 AFV Passengers: Any personnel stand, except cavalry, bicycle, motorcycle, grav cycle or a double-sized stand, may ride on an AFV. One stand may ride on each qualified AFV. Any tracked AFV that is not a transport vehicle and is not open topped is qualified for AFV passengers.

12.13 Dismounted Troops: Any cavalry, bicycle, grav cycle or motorcycle stands may elect to dismount from their horses, bicycles, grav cycles and motorcycles, and serve as dismounted stands. These stands may mount/dismount in the same way as personnel stands mount/dismount transport vehicles, at a cost of half their movement allowance.

Once dismounted, these stands move as all other personnel stands. Cavalry, bicycle and motorcycle stands may only remount in the same location where they dismounted. Should enemy stands pass through this location, they may not remount.

12.14 Grav Belts: Personnel stands equipped with grav belts move using the characteristics of the grav belt, but are in all respects treated as personnel stands. Grav belt stands may be transported by other vehicles.

12.2 Transporting Towed Weapons

A transport vehicle capable of towing has a towing capacity code (I, II, III, IV, V or VI) corresponding to the maximum class of towed weapon it may pull.

A transport vehicle may pull a towed weapon lighter than its towing capacity, but it is limited to one towed weapon at a time. Thus, a light truck, with a towing capacity of IV, could pull a class I, II, III or IV towed weapon. Note that a vehicle may be able to tow a weapon, yet not necessarily have the capacity to transport the weapon's crew.

12.21 Limbering/Unlimbering Towed Weapons: A towed weapon must be limbered to its towing vehicle in order to be towed. If limbered, it must be unlimbered from its towing vehicle in order to fire. The gun crew of a towed weapon pays a movement cost to limber or unlimber the towed weapon. However, the gun crew does not pay any additional cost to mount/dismount the transport vehicle when limbering/unlimbering a towed weapon from the same transport vehicle. Limber and unlimbering costs are:

Class I Towed Weapon: It costs half the movement allowance of both the vehicle and crew to either limber or unlimber the weapon.

Class II Towed Weapon: It costs half the movement allowance of both the vehicle and crew to unlimber the weapon, and all the movement of both to limber the weapon.

Classes III-VI Towed Weapons: It costs all the movement allowance of both the vehicle and crew to either limber or unlimber the weapon.

As with the mounting/dismounting of troops, if the stands which are attempting to limber/unlimber have moved prior to the act of limbering/unlimbering, that movement is deducted from any remaining.

12.3 Towing/Pushing Vehicles

A disabled vehicle may be pushed out of the way by any recovery vehicle, or by any vehicle of an equal or greater weight class (as defined in Rule 1.13). A vehicle which is destroyed during the game may not be pushed out of the way; it is assumed that the wreck is on fire and too dangerous to approach. If a game is played with wrecks (destroyed vehicles) present from the start of the game, those wrecks may be pushed out of the way.

12.31 Pushing: To push a vehicle out of the way, the pushing vehicle must start adjacent to the vehicle and be given a *full advance* order. It takes the pushing vehicle's entire movement allowance for the turn to push the vehicle out of the way.

A vehicle forced back due to fire during this process must roll dice to see if it succeeded in pushing the other vehicle out of the way before being forced back. It succeeds on a roll of 5 or less.

12.32 Towing: A disabled vehicle may be towed by a recovery vehicle or other vehicle of equal or greater weight class. To prepare a vehicle for towing, the towing vehicle must spend one Movement Phase stationary and adjacent to the vehicle to be towed.

A vehicle forced back during this process does not succeed in the tow and must start over when it returns. When a vehicle tows another vehicle, its movement is quartered. A destroyed vehicle may not be towed; it is assumed that damage to the vehicle is too severe.

RULE 13: ADVANCED DIRECT FIRE

This rule expand the direct fire rules by adding agility, fire control computers and other special cases.

13.1 Agility

Agility is the game mechanism which shows the difficulty of hitting a fast-moving target. Fast-moving vehicles, missiles and even artillery shells have agility ratings, which are progressive increases in the difficulty level of the to-hit die roll.

Each such increase in difficulty, called a "diff mod," halves the chances of success, rounding fractions down. As a practical matter, this means that the shot is resolved as if it were one range band more distant for purposes of hitting (but not for ROF or penetration purposes).

If the diff mods increase the range of the shot beyond extreme range, each additional diff mod increase reduces the number of dice rolls (ROF) by 1. If the ROF is reduced to 0 or less, no shot is possible.

13.11 Target Agility: Many vehicles and all aircraft have agility diff mods based on their speed. These diff mods are recorded on the vehicle's data card in parentheses after their movement allowances. Three diff mods are given for most movement allowances, the three mods being (in order) that for a *cautious advance*, a *rapid advance* and a *travel* order. Vehicles which have no agility diff mods at a given speed will have a — instead.

For example, a vehicle with the notation (—, —, +1) would have no agility diff mods when conducting either a *cautious* or *rapid advance*, but would have a diff mod of 1 when travelling.

Flying vehicles only have a total of three diff mods: two for low altitude/NOE flight and one for high-altitude flight. The two low-altitude diff mods are used for *cautious* and *rapid advance*, while the high-altitude mod is used for *travel* orders.

13.12 Missile Agility: All missiles have a single agility, which is recorded on the unit data card. Missiles may not be fired at by weapons which do not have point defense fire control (see Rule 13.2 below).

13.13 Artillery Agility: All indirect fire nonmissile artillery rounds (both area fire and precision fire) have an agility of +6. Artillery rounds may not be fired at by weapons which do not have point defense fire control (see Rule 13.2 below).

13.2 Fire Control

Many larger weapons have sophisticated fire control computers which assist them in tracking and engaging fast-moving targets.

Fire control computers enable a weapon to ignore one or more diff mod increases due to target agility. The number of diff mods the weapon ignores is referred to as its "fire control bonus." Note that fire control systems do not reduce difficulty below the level determined by the actual range; they merely allow the weapon to ignore increases.

13.3 Point Defense

Only weapons equipped with point defense fire control may fire like any other weapon, using their printed fire control bonus to ignore agility diff mods. They have several special features in addition, however.

First, only weapons with point defense fire control may fire at missiles and ballistic projectiles (artillery rounds). Only weapons with a penetration greater than Nil have an effect on missiles and artillery rounds.

Point defense weapons may fire in self-defense at incoming missiles and ballistic projectiles in any Fire sub-phase, regardless of the movement order received, provided the movement order allows the weapon to fire at all. (Units operating under *travel, rally* and *regroup* orders, for example, may not fire point defense in self-defense.)

When firing at missiles or ballistic projectiles not directed at them, or when firing at any other target, they fire in the Fire sub-phase determined by the order they were issued in the Command Phase.

Regardless of the initiative level of the firing gun crew, point defense fire in a sub-phase is always resolved before the fire of the missile or ballistic projectile fired at by the point defense weapon. If, for example, an Elite stand fired a missile at an enemy tank, an enemy point defense weapon eligible to fire in that sub-phase could still fire at the missile and attempt to shoot it down, and that attempt would be resolved before the missile attack, even if the point defense weapon's crew were only Experienced.

Second, when firing at either nonevading ballistic projectiles (such as artillery) or at flying vehicles conducting travel movement, the point defense system doubles its fire control bonus. Note that this does not apply to missiles or flying vehicles in at low altitude (executing a *cautious* or *rapid advance* order).

Any hit on a missile or artillery round destroys it.

13.4 Advanced Missiles

This rule introduces several more sophisticated types of missiles to the game.

13.41 Homing Missiles: Homing missiles are locked onto a target and then actively seek it after firing. Homing missiles have the same range bands as for conventional direct fire weapons and use the accuracy asset of the firing troops.

Homing missiles have an agility rating, the same as any other missile. Homing missiles, however, use their agility rating minus as a fire control bonus versus the agility of the target. A homing missile with an agility of 4, for example, could ignore up to four agility diff mods due to the target's speed.

13.42 Overhead Attack Missiles: Overhead attack missiles attack the top armor of a vehicle instead of the armor face presented to the firer. There are two types of overhead attack missiles—top attack and plunging attack—based on their flight path.

13.421 Top Attack Missiles: Top attack missiles are available from tech level 8 on. Their penetration is usually much lower than comparably sized missiles which approach the vehicle directly, since the warhead is much less efficient when placed at an angle to the centerline of the missile and there is less
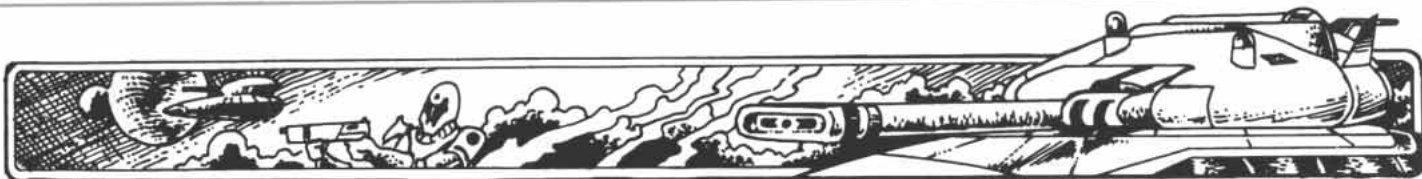
control over optimal stand-off range. Top attack missiles fly directly at the target but then fly across the top of it. As they pass over the target, their warhead fires down (and usually slightly forward) to hit the top armor of the vehicle.

Top attack missiles are treated as conventional Tac missiles in all respects except that they always attack the top armor of the vehicle.

13.422 Plunging Attack Missiles: Plunging attack missiles are also available from tech level 9 on. Their penetration is the same as for a conventional missile, as they approach the target from a higher altitude and then dive down onto it, thus attacking with the warhead in a conventional position.

Plunging attack missiles are treated as conventional Tac missiles in all respects save two. First, they always attack the top armor of the vehicle. Second, they are treated as nonevading ballistic rounds for purposes of defensive fire by point defense systems.

13.43 Drone Missiles: Drone missiles are small remotely piloted aerial vehicles equipped with both a sensor and a warhead. Each drone missile is controlled from the launch station by a pilot and is self-ordered while aloft, so long as it is in communication with the launch vehicle. The missile may remain airborne throughout the scenario; the range bands listed for the missile are purely for determining accuracy of fire.

A drone missile attacks by flying into a target structure, vehicle or stand. The attack is treated as direct fire, and the distance the missile moved that movement phase is the range used to determine the accuracy die roll of the attack. For example, a missile with a short range (for accuracy purposes) of 20 cm and which moved 60 cm the turn it struck its target would resolve its accuracy die roll as fire from long range.

A drone missile may be ordered to hit an armored face other than the one the missile is facing, but this increases the difficulty of hitting by one range band. The long-range attack mentioned above, for example, would be resolved as an extreme-range attack.

13.5 Aerial Attacks

Flying vehicles firing at ground targets do so in one of two ways—by turreted fire and approach fire.

13.51 Turreted Fire: Some flying vehicles have turrets mounted on their bellies to direct fire at ground targets. Only flying vehicles capable of NOE flight have such turrets. (Fixed-wing aircraft not capable of NOE flight may have turreted weapons, but they are for fire at other aircraft, not ground targets.)

Flying vehicles fire turreted weapons in the same manner as do ground vehicles, with the move order restricting the ability of the weapon to fire by stabilization overcoming this.

13.52 Approach Fire: Flying vehicles firing nonturreted weapons do so via approach fire. This includes fixed forward-firing projectile and energy weapons as well as rockets, missiles and bombs. Flying vehicles following a *travel* order (and thus flying at higher altitudes) may attack using approach fire. (Note that this is the only time that a unit in the game may fire while executing a *travel* order.)

Approach fire requires the aircraft to fly in a straight line directly at the target for the entire turn. (If capable of hovering, the aircraft may hover in place facing the target.) If flying above NOE altitude, the player also specifies the altitude (in centimeters on the game table) at which the aircraft is flying. If dropping bombs, the flying vehicle must pass directly over the target during movement.

Approach fire is conducted at the end of the fire phase after all ground units have fired. However, the fire is conducted as if from any point along its movement. If the flying vehicle has been forced back or destroyed by fire during the turn, and the fire which destroyed it or forced it back came at a point along its flight path before the point at which it fired, its fire does not take place. If the fire hit the aircraft on its flight path after the designated firing point, the aircraft is allowed to fire.

13.521 Direct Fire: All approach fire from cannons, energy weapons and missiles are resolved as direct fire attacks using the normal direct fire rules.

13.522 Bombs and Rockets: All approach fire using bombs and rockets is resolved as indirect area fire, with the accuracy roll based on the altitude of the attacking aircraft. Aircraft flying at up to 10 cm attack as if at short range; those flying at up to 50 cm do so as if at medium range; those flying at up to 100 cm do so as if at long range; and those flying at over 100 cm do so as if at extreme range.

All rocket and bomb attacks which miss deviate in the same manner as artillery rocket launchers.

Aerial Bombardment

Altitude	Range for Accuracy
0-10 cm	Short
11-50 cm	Medium
51-100 cm	Long
101+ cm	Extreme

13.6 Meson Guns

Meson guns have the advantage of being able to fire through objects (such as planets) without interacting with the intervening material. Meson gun fire against targets visible to the gun crew is treated as direct fire. Meson guns may also fire against targets not visible to the gun crew, provided an observer can direct the fire onto target. This type of fire is treated as indirect area fire.

In the case of direct fire, a direct hit on a target always causes a casualty; no saving throw is made, nor is any penetration check versus vehicle armor made.

In both direct and indirect fire, the meson pulse is treated as a conventional exploding round, with one important difference. No reductions to the explosive power of the meson gun's fire are ever made for terrain, cover, vehicle weight or armor, or any other factor. The explosive value of the round is always the target number rolled to inflict a hit on the target.

13.7 Orbital Bombardment

Attacks from orbit by directed energy weapons (meson guns, lasers and particle accelerators) are treated as direct fire, with the following exceptions.

13.71 Allowed Targets: Orbital direct fire may only be used to attack surface installations (such as settlements), vehicles, and towed or emplaced weapons (such as air defense missiles). They may not attack personnel stands (although personnel stands riding in vehicles or occupying structures may be attacked as the vehicle or structure is attacked).

13.72 Range: For purposes of accuracy, all orbital direct fire is treated as short-range fire. For purposes of damage and penetration, all orbital meson gun fire is treated as short-range fire, all laser direct fire is treated as medium-range fire, and all particle accelerator fire is treated as extreme-range fire.

13.73 Angle of Attack: All orbital direct fire attacks the top armor of vehicles.

13.74 Target Agility: All ground and flying targets double their agility ratings when being fired at from orbit.

13.8 Multiple Projectile Rounds (MPRs)

Multiple projectile rounds include shotgun rounds, flechettes and cannister.

13.81 Small Arms: Small arms multiple projectile rounds are shotgun rounds and flechette rounds fired from light assault guns (LAGs). Small arms MPRs roll twice their normal number of dice at short range. This is indicated by an asterisk after the short-range ROF number.

For example, a shotgun with an ROF of 3* would roll 6 dice for hits.

13.82 Heavy Weapons: Heavy weapon multiple projectile rounds (MPRs) are flechette rounds and (in black-powder cannons) cannister.

13.821 Flechette: Some weapons have the ability to fire flechette rounds, antipersonnel ammunition containing hundreds of tiny darts.

Flechette rounds may only be fired by direct fire. Unlike other direct fire, flechette rounds do not require a to-hit roll. Instead, the area of effect of the flechette round, called its "danger space," is placed on the table by the firing player along the imaginary line from the firing unit to the target, with the danger space's long dimension lying along that line, and its width centered on that line. This danger space must remain completely within a single range band of the firing weapon.

All targets within the area of effect roll 1D20 for hits. A roll of 1-6 results in two hits, and a roll of 7-12 results in one hit. Rolls of 13+ are no effect.

Each hit has a penetration value of 2, and targets make saving throw rolls with cover benefits as normal.

13.822 Cannister: Cannister is resolved like a flechette round, except that the burst area is always placed starting at the barrel of the cannon.

13.9 Laser Armor: Lasers are not affected by nonrigid armor. Melee-only armor as well as flak jackets, ballistic cloth, ballistic weave and combat environment suits provide no saving throws vs. laser fire.
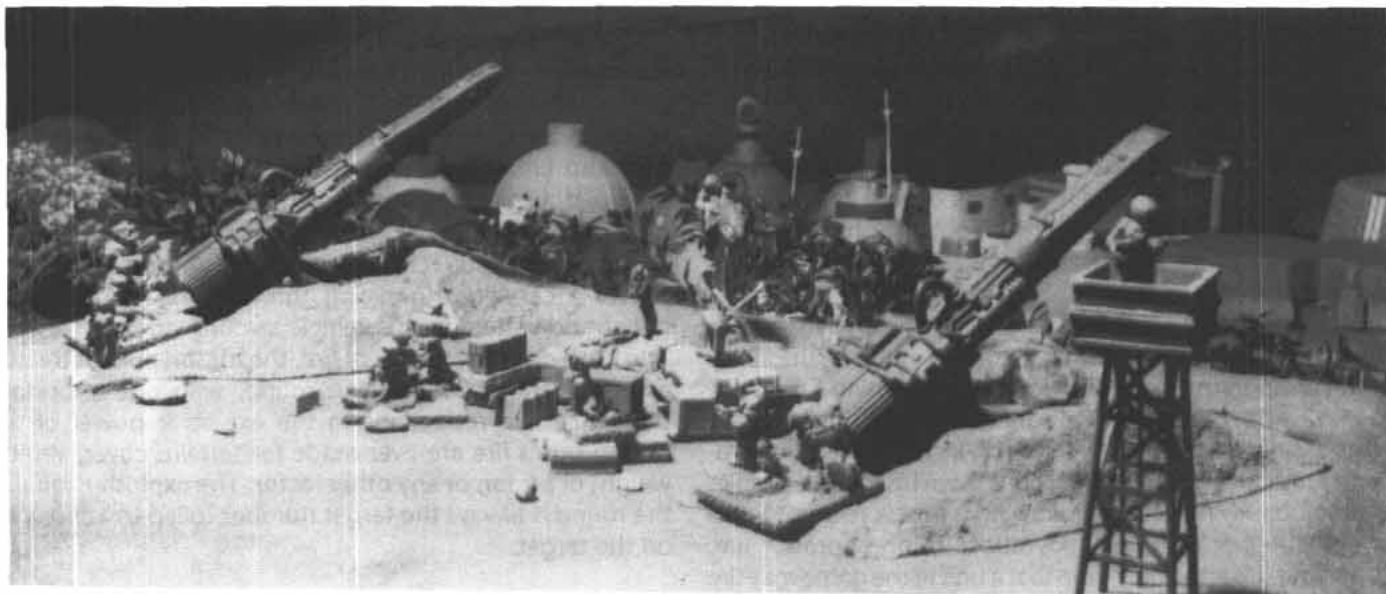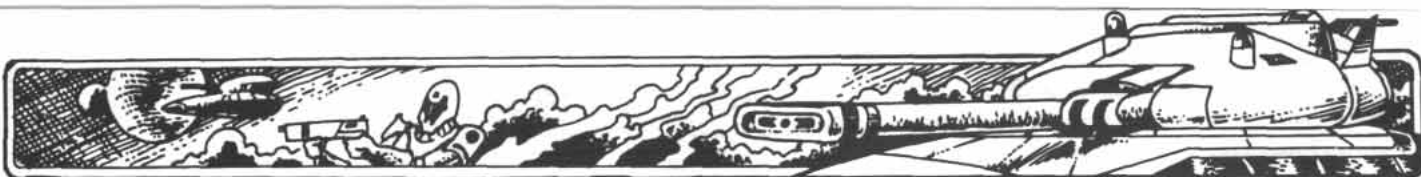
RULE 14: ADVANCED ARTILLERY

The following rules deal with abilities of artillery not found in the basic game.

14.1 Artillery Rocket Launchers

Artillery rocket launchers (ARLs) conduct indirect fire in a slightly different manner than regular artillery fire. Although ARLs have multiple tubes, they are treated as one round with a very large burst area. This burst area is a circle and covers the beaten zone of the rocket salvo. ARLs may not conduct ranging fire, nor may they use preplotted points for targets. All ARL fire missions are plotted in the usual manner, but there is always a die roll to see if they are on target.

If the accuracy roll fails, then unlike the procedure normally used for artillery, the firing player uses the deviation chart to find where the rounds actually land. To do so, roll 1D20. The number rolled determines the direction that the impact point will shift. Then roll 1D20 again for the distance (in centimeters) that the mission will deviate from the plotted target point, doubling the number rolled if the firing stand is Novice and halving it if the crew is Elite. Move the target point of the mission in the direction and distance rolled, and center the burst template at that point in accordance with Rule 8.

Once an ARL fires, it may not fire again until it is reloaded. It takes the crew two complete turns to reload its ARL. If the ARL is equipped with an autoloader, reloading takes only one full turn. The crew and weapon must be stationary while reloading. Due to their nature, ARLs never continue fire in the Opportunity Fire sub-phase, as it is not possible to keep up a bombardment on the same area with a single unit. An ARL is automatically spotted in the Fire Phase in which it fires if an enemy stand has an unblocked line of sight to the ARL when it fires.

Example: An ARL carries out a mission which was plotted by an Experienced forward observer stand. The target accuracy die roll number is a 5 or less. The die roll is a 6, which means the mission fails to hit the impact point. The roll for deviation is a 10, which means the mission will drop short. The roll for distance is a 16, which means the point of impact is shifted 16 cm away from the intended point of impact. Any units present, whether enemy or friendly, may be hit by this fire.

SCATTER DIAGRAM
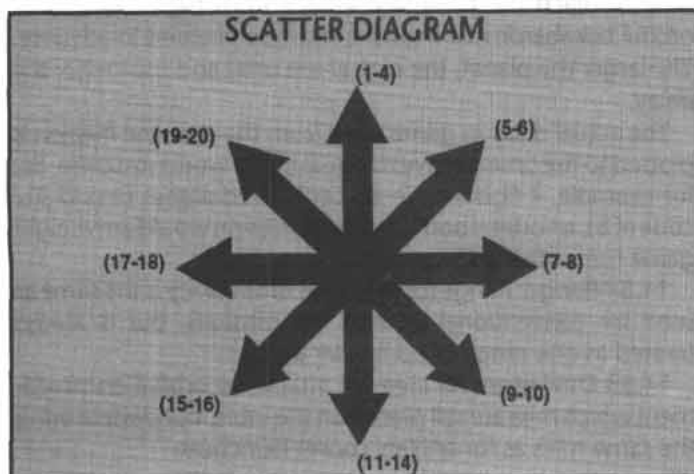
14.11 Remote MRLs

Remote MRLs are small unmanned multiple-tube ARLs emplaced a safe distance from friendly troops. They fire like any other ARL, but once employed may not be moved or reloaded during a game.

Remote MRLs are off-loaded like any stand or may be dropped by purpose-built emplacement vehicles in one turn.

14.2 General Support Fire

In a number of cases, artillery fire is referred to as general support (GS) as opposed to direct support (DS). The main difference is that direct support artillery is controlled by a unit on the field. General support artillery, while operating in support of the units there, is not controlled by any unit on the battlefield. The following missions are examples of general support missions. They occur according to a prefixed schedule, and may not be altered in the course of a game except to cancel them. They are fired by battalions; a single battery may never be assigned to a general support mission. All die rolls for general support missions are carried out by the referee.

14.21 Harassment and Interdiction Fire: Often referred to as "map fire," these missions are designed to call fire down on specific geographic points such as towns, bridges, road junctions, etc., to deny their use to the enemy. This mission can never be a converged sheaf, and the explosive value on stands moving through the impact area is halved, rounded down. Note that this is in addition to any other modifiers for the stands in the impact area.

Fire from a harassment and interdiction mission falls during the Opportunity Fire sub-phase.

Example: A 15cm howitzer battery is firing at a crossroads which an enemy tank battalion needs to move through. The explosive value of the artillery is a 14, halved to a 7. The tanks have an explosive value modifier of –5, so they can only be damaged by the fire on a roll of 1 or 2. However any soft vehicles (explosive value modifier of –1) moving with the battalion would be hit on a roll of a 1 to 6.

Players should note that the area under bombardment may be circumvented by a unit to avoid passing through the target zone. Such a move is perfectly correct, as that is the goal of such a mission.

ARL battalions which are assigned to such missions must always roll for deviation. However, the explosive value of the impact areas are not halved.

14.22 Counterbattery Fire: Counterbattery fire is conducted against enemy artillery stands. It can be carried out in one of two ways. It may be conducted as "map fire" against suspected enemy positions as in the section above. If the resources exist, it may be carried out with the aid of counterbattery sensors.

Counterbattery sensors have ranges just like other sensors, but they are used exclusively to detect and track incoming area fire rounds shot by guns or mortars. By plotting the trajectory of the round, the sensor's computer can pinpoint the location of the firing weapon.

Each counterbattery sensor in use can detect one firing

enemy artillery unit and allow an attack on that unit in the next turn by area fire (not precision fire) weapons. The accuracy roll for the indirect fire attack is based on the range from the sensor to the firing unit. (In most cases, both of these will be off-table.) In other words, no roll for success is made when the enemy artillery fires. Instead, the accuracy roll for the counterbattery fire is the real indication of how successful the sensor was.

14.3 Destruction by Area Fire

Buildings, bridges and certain types of fortifications may take damage from artillery fire (either direct or indirect fire HE, and certain types of AP fire). For each turn that such a structure is in the blast area of an explosive weapon, it takes damage equal to half the explosive value of the round minus 4. Thus, weapons with an explosive value of 8 or less have no effect on a structure. A 10cm round with an explosive value of 10 will do 1 point of damage to a structure, while an 8cm round with an explosive value of 8 will do 0 points of damage.

AP rounds greater than 7 cm do 1 point of damage per hit. Smaller AP rounds have no effect.

Note that in the case of a converged sheaf fired at a structure, each round will cause damage. Thus, a class V bridge which is hit by a converged sheaf of three 15cm rounds, each with an explosive value of 14, will take 3 points damage from each round. Thus, in one turn, the class V bridge, which is reduced one level for every 3 damage points suffered (see Rule 11.31), would be reduced to a class II bridge.

For the damage capacity of structures, see Rule 11.4 (planetscapes).

14.4 Submunition Rounds

There are three types of submunition rounds: standard submunitions, dual purpose (DP) submunitions and homing submunitions. Submunition rounds carry a large number of
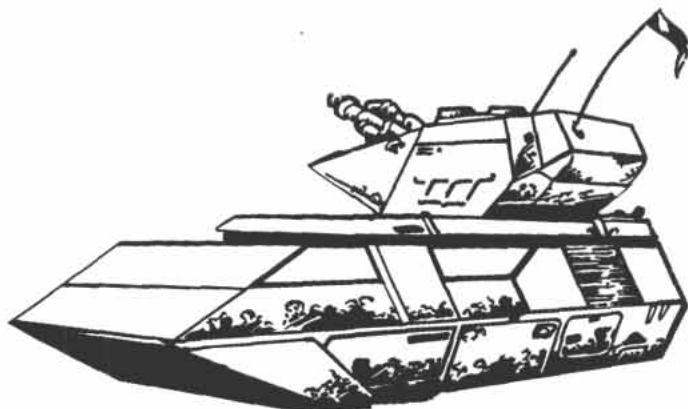
small grenades which are spread across the burst area and which detonate when they strike the ground or a target. DP submunitions include antitank grenades.

Submunition rounds cover a burst area larger than the size of a normal HE round, as shown in the data annexes to the rules. Conventional submunitions and DP submunitions both have an explosive value of 16. Homing submunitions have an explosive value of 20 versus vehicles and 10 versus nonvehicle stands.

All submunition rounds use the following modifiers to their explosive value (instead of those normally used for exploding rounds).

Submunition Fire Modifiers

Target is:	Modifier
Armored vehicle*	–12/–8

Terrain is:	Modifier
Light vegetation**	–6
Moderate vegetation**	–10
Dense vegetation**	NE (–16)
Entrenchment	–12
Weapons pit	–8
Building	–14
Bunker, pillbox	NE (–16)
Open water	NE (–16)

*Only counts as armored if it has top armor of 2 or more. Lower modifier is used versus DP submunitions.

**Vegetation must include some overhead canopy of branches and leaves to provide modifiers.

14.5 Orbital Bombardment

Orbital bombardment using missiles and deadfall bombs (both guided and unguided) is treated as a form of indirect fire. Missiles and guided bombs are precision indirect fire, while unguided bombs are indirect area fire.

14.51 Delay: Bombs and missiles dropped from orbit are actually fired at the planetary surface with a respectable initial velocity (on the order of 800 to 1200 km per hour), but still take time to reach the planetary surface from high orbit, so all orbital bombardment missions must be planned in advance. The larger the planet, the higher the orbit and the longer the delay.

The actual delay in game turns from the time the mission is plotted to the time it arrives is equal to the world size code. So, for example, if fighting on an Earth-sized planet (world size code of 8), an orbital bombardment mission would arrive eight game turns after it was plotted.

14.52 Range: Range for purposes of accuracy is the same as used for conventional indirect fire missions, but is always treated as one range band farther away.

14.53 Deviation: All area fire attacks by orbital bombardment which miss are still placed on the table, but deviate using the same rules as for artillery rocket launchers.
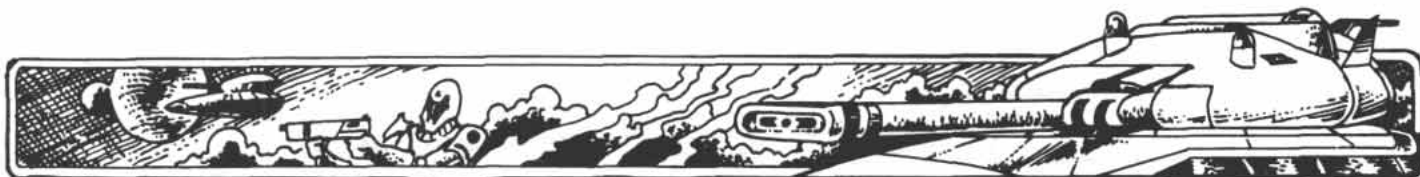
RULE 15: ADVANCED VISIBILITY

Environmental variations affect visibility and the ability of a unit to detect hostile units in a variety of ways.

15.1 Horizon

The maximum line of sight visibility is always the distance to the horizon. This may be reduced by unevenness of the ground or atmospheric conditions, but is never more than that. Elevations (such as on a hill) can increase this by pushing the horizon further out, as detailed in the basic game rules.

The basic rules assume a size 8 planet (in **Traveller** terms) with a mean diameter of 12,800 km. Horizon distances on different-sized worlds are listed below.

Distance to Horizon

World Size Code	Mean World Diameter (km)	Distance to Horizon (cm)
1 (Small)	1600	1800
2 (Small)	3200	2500
3 (Small)	4800	3100
4 (Small)	6400	3600
5 (Medium)	8000	4000
6 (Medium)	9600	4400
7 (Medium)	11,200	4700
8 (Large)	12,800	5100
9 (Large)	14,400	5400
A (Large)	16,000	5700

15.2 Night

Visibility at night varies considerably, depending on the amount of background light.

The referee should assign a background light level from 1 to 3, with 1 being the brightest, representing a clear night with one or more full moons high in the sky, and 3 being the darkest, a cloud-covered, moonless night.

The background light level equals the number of +diff mods applied to the naked eye detection task. Some vision enhancement devices avoid these diff mods, however, as indicated below.

The effects of night are expressed as +diff mods to the spotting task, but all of these diff mods should be used as progressive halvings of the eyeball short range. The resulting extreme range is then the absolute limit of visibility.

For example, on a very dark night (+3 diff mod), eyeball short range becomes 12.5 cm, which makes the absolute upper limit of eyeball visibility 100 cm.

15.21 Other Effects: Reduced visibility due to darkness has effects beyond spotting and maximum sighting range.

15.211 Troop Quality/Morale: During night turns, all units have their troop quality reduced by one level (Elites function as Veterans, Veterans function as Experienced, Experienced function as Novice. Novice units remain Novice). In addition, morale levels are reduced by 4 during night hours.

15.212 Command and Orders: During night turns, the radius of effect for an order is reduced from 15 cm to 5 cm. In addition, units may not be given *regroup* or *rally* orders during night turns.

15.213 Engineering: Engineering tasks (see Rule 18) take twice as long if carried out at night.

15.3 Weather

Weather which affects visibility includes fog, low clouds, high winds which carry dust and, of course, precipitation (rain and snow).

For purposes of visibility, however, the referee simply classifies inclement weather as to its diff mod level, ranging from +1 to +3 (or, very occasionally, +4).

Difficulty modifiers for weather should also be used to determine the reduced upper limits of visibility.

15.4 Smoke

Light smoke (that generated by artillery smoke rounds when they hit) imposes a +1 diff mod on spotting attempts through it. On subsequent turns, it blocks line of sight completely.

15.5 Wind

There are three classes of wind: light, moderate and high. It is quite rare for no wind at all to be blowing, and therefore the normal wind condition is light.

15.51 Effects: Light wind has no effects other than to move smoke in a given direction (see Rule 15.362).

Moderate wind reduces visibility by 10 inches in dusty conditions. Moderate wind during a rain or snow storm halves visibility (in addition to the effect of the storm).

High wind reduces visibility by 20 inches in dusty conditions. High wind during a storm quarters visibility (round to the nearest inch). High wind makes sound ranging impossible.

The maximum length of a smoke template in high wind conditions is 4 inches. Because of the deleterious effects of high winds on the game, referees are advised to limit high wind conditions to one or two turns and then reduce them to moderate.

15.52 Direction: Wind direction is determined at the start of the game. This may be accomplished by referee fiat, or randomly by consulting the scatter diagram (see the Game Reference chart). To use the chart, the referee picks a direction on the table and orients the chart so that the "1-6" arrow on the chart points that way. Roll 1D20 and consult the chart. The arrow corresponding to the result is the wind direction.

15.53 Changes in the Wind: For simplicity, the referee may decide that the wind direction and intensity will not change over the course of a game. If desired, however, a chart similar to the one below can be used.

Each turn, roll for a change in wind intensity and direction (two separate rolls).

Wind
(roll twice per turn)

Roll	Direction	Intensity
1-2	No change	Light unchanged, moderate becomes light, high becomes moderate
3-16	No change	No change
17-18	Shift 1 clockwise	No change
19-20	Shift 1 counterclockwise	Light becomes moderate, moderate becomes high, high is unchanged

15.54 Wind and Storms: The arrival of a storm is usually accompanied by a change in the wind. Most often this is a shift in direction of one point (sometimes the wind increases one level in intensity as well).

15.6 Vision Enhancement Devices

A variety of vision enhancement devices may be available to the unit. These are listed in the data annexes to the rules along with their short ranges. Vision enhancement devices have the following special capabilities.

15.61 Infrared (IR): Infrared devices are not affected by night +diff mods.

15.62 Light Amplification: Light amplification devices are not affected by night +1 or +2 diff mods, but suffer the full effect of +3 diff mods. They may not be used at all in any sort of poor weather.

15.63 Image Intensifiers: Image intensifiers are not affected by night +diff mods.

15.64 Thermal Viewers: Thermal viewers are not affected by night diff mods or +1 weather diff mods or +1 smoke diff mods. They are affected by any weather diff mod greater than

+1, and they suffer a +1 diff mod when attempting to spot or see through a solid smoke screen.

15.65 Radar and Ladar: Radar is not affected by smoke, night or weather. It may be jammed (see **Rule 0.00: Electronic Warfare**).

Ladar is not affected by night +diff mods. It is affected by weather and smoke at tech level 12 and below. At tech level 13 and above, it is unaffected by smoke and weather. Ladar cannot be jammed.

15.7 Illumination

Objects which are illuminated can be seen at normal daylight eyeball ranges. Several means of illumination are available.

15.71 ILLUM Rounds: Many artillery weapons are equipped with ILLUM (illumination) rounds. An ILLUM round illuminates the area within its burst radius as if it were full daylight.

ILLUM rounds have no effect in bad weather or in smoke.

15.72 White Light Spotlight: A white light spotlight will illuminate an area 2 cm across at ranges up to 200 cm, and allows any stand to spot targets within the illuminated area as if it were daylight. The light itself is automatically spotted (at night) by all stands at any distance, provided they have an unobstructed line of sight to it.

White light spotlights have no effect in bad weather or in smoke.

15.73 IR Spotlights: An infrared spotlight can illuminate an area 2 cm across at a range of up to 100 cm. Only stands equipped with IR goggles can see the light, and they make spotting rolls against the targets within the illuminated area as if it were daylight (regardless of the listed ranges of the IR goggles). The light itself is automatically spotted (at night) by all stands at any distance, provided they have an unobstructed line of sight to it and are equipped with IR goggles.

IR spotlights have no effect in bad weather or in smoke.
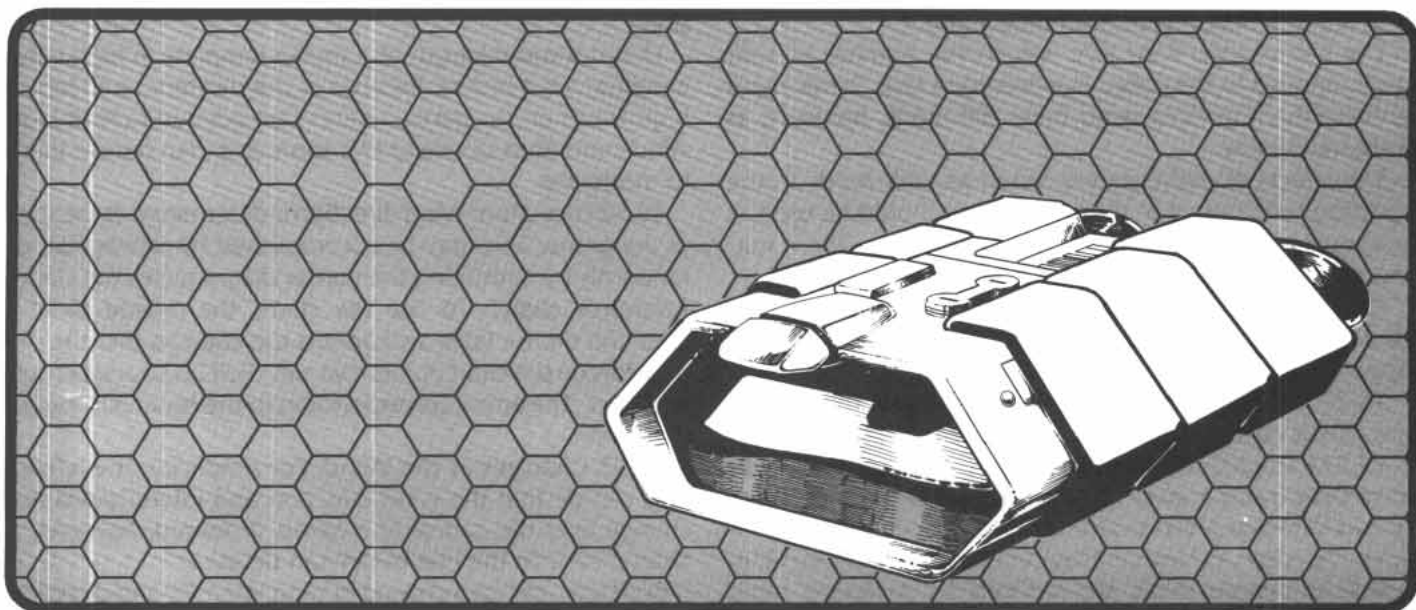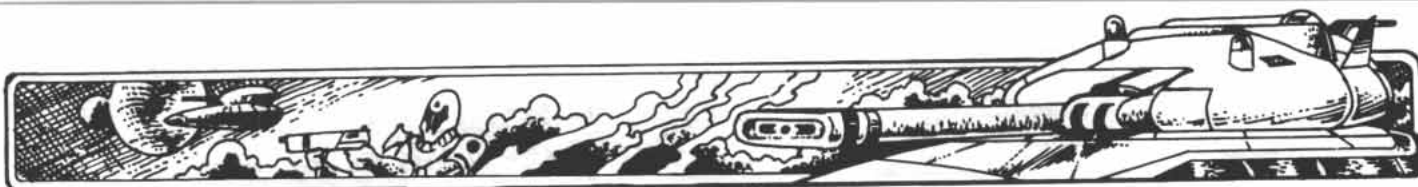
RULE 16: ADVANCED WEATHER

Weather may affect both movement and visibility. The effects of each type of weather are as follows:

16.1 Rain

Rain reduces visibility and, depending on its duration, may produce mud and thus restrict movement as well. The visibility effects of rain are covered in Rule 15 under weather.

The referee may make a table to determine the extent of the rainfall, as well as any changes in its type. For example:

Rainfall
(roll each turn)

Die Roll	Effect
1-2	Light ceases, steady becomes light, heavy becomes steady, clear remains unchanged
3-9	No change
10	Light becomes steady, steady becomes heavy, clear becomes light

If rain continues for any length, it will affect the ground conditions by producing mud. Count the number of turns that it has been raining, with each turn of light rain counting as one-half, and each turn of heavy rain as two turns, and check on the following table:

Rain Ground Conditions

Hours	Condition
3 hours of rain	Light mud
6 hours of rain	Medium mud
12 hours of rain	Heavy mud

Note that the referee may determine as part of the scenario that it has been raining a set number of turns before the start of the game.

16.2 Mud

Mud caused by rain or other weather is temporary; mud caused by poor drainage or a high water table is permanent. Mud affects the movement of all stands except those on hard-surfaced roads. The effects of each type of mud condition are as follows:

16.21 Light Mud: All ground stands moving do so by paying double movement costs in addition to any other movement costs they must pay. Thus, a tracked vehicles moving in a woods would pay double movement costs for the woods, and double again for the light mud. Thus, they would be paying quadruple costs (i.e., 4 cm for every centimeter actually moved).

16.22 Medium Mud: All personnel stands move by paying double movement costs in addition to any other movement costs they must pay. All ground vehicles (except air cushion vehicles) move by paying quadruple movement costs in addition to any other movement costs they must pay. Thus, a tracked vehicle moving in a woods would pay double move-

ment costs for the woods, and quadruple again for the medium mud, octupled total movement costs or 8 cm for every centimeter actually moved.

In addition, all ground vehicles (except air cushion vehicles) while moving cross country may become mired.

16.23 Heavy Mud: All personnel stands move by paying double movement costs in addition to any other movement costs they must pay. All ground vehicles (except air cushion vehicles) move by paying quadruple movement costs in addition to any other movement costs they must pay.

All ground vehicles (except air cushion vehicles) while moving cross country may become mired. In addition, wheeled vehicles may become mired when moving on unpaved roads.

16.24 Flooded Areas: Depending upon the scenario, the referee may choose to mark certain areas along rivers and creeks as flooded. Such areas may either be considered as impassible or as heavy mud, at the referee's discretion. In addition, flooded areas may block access to some bridges. As a general rule, the area within 5 cm of an impassible flooded area should be treated as heavy mud.

16.25 Mired Vehicles: At the end of each Movement Phase in which a vehicle that moves has a chance to mire, check the following chart. Roll 1D20 for the vehicle. If the die roll is equal to or less than the number indicated, it is mired. Recovery vehicles are exempt from having to roll on the Miring chart, below.

Miring

Vehicle Type	Miring Roll Medium Mud	Miring Roll Heavy Mud
Wheeled vehicle on dirt road	—	2
Wheeled vehicle off road	4	8
Tracked vehicle off road	2	4

A mired vehicle may not move until unmired, either with the help of vehicles or by itself.

Normally the check to mire is made at the end of a turn. If, however, a vehicle moves across an area where it can mire to an area where it is safe, it still must check at the point where it left the area.

Example: An wheeled armored car is moving down a hard road. It must leave the road and detour around a wreck onto heavy mud. Even though it will start and end the turn on a hard surface road where it is a wheeled vehicle safe from miring, it still must check at the point where it attempts to regain the road. On a roll of a 1 to 8, it will be mired.

16.26 Unmiring Vehicles: A vehicle may be unmired in one of the two ways. It may be pushed or pulled by another vehicle for at least 1 cm (per Rule 12.3). If this happens, the vehicle is unmired.

As an alternative, a vehicle may attempt to unmire itself. The vehicle must be given a *cautious advance* order and must spend its entire movement allowance in the attempt. A D20 is rolled, with a result of a 1 or 2 indicating that the vehicle is now free and may move 1 cm for this turn. Veteran or Elite crews may

subtract 2 from the die roll to unmire. The vehicle is free to move on the following turn, but may need to check on the following turn for miring again.

16.3 Snow

Snow reduces visibility and, depending on its duration, may restrict movement as well. The visibility effects of snow are covered in Rule 15.

The referee may make a table to determine the extent of the snowfall, as well as any changes in its type.

Snowfall
(roll each turn)

Die Roll	Effect
1-2	Light ceases, steady becomes light, heavy becomes steady, clear remains unchanged
3-9	No change
10	Light becomes steady, steady becomes heavy, clear becomes light

If snow continues for any length, it will affect the ground conditions. Count the number of turns that it has been snowing, with each turn of light snow counting as a half-turn and each turn of heavy snow as two turns. Check on the following table:

Snow Ground Conditions

Hours	Result
3+ hours of snow	Snow cover
6+ hours of snow	Deep snow cover

Note that the referee may determine as part of his scenario that it has been snowing a set number of turns before the start of the game.

16.31 Snow Cover: Snow cover affects the movement of all stands by doubling all costs, except for flying vehicles, air cushion vehicles and ground vehicles on roads. Vehicles on plowed roads may move normally with their road movement factor. Ground vehicles (except air cushion vehicles) moving on unplowed roads may not use their road movement factor, but are limited to their cross country factor. Thus, a tracked vehicle moving in a woods would pay double movement costs for the woods and double again for the snow cover. Thus, they would be paying quadruple costs (i.e., 4 cm for every centimeter actually moved).

Ski-equipped personnel stands and specially constructed snow-crossing vehicles (such as arctic tractors or animal-drawn sleds) ignore the terrain effects of snow and move normally.

16.32 Deep Snow Cover: Deep snow cover affects the movement of all personnel stands by doubling all costs. Vehicles on plowed roads may move normally with their road movement factor. Ground vehicles (except air cushion vehicles) moving on unplowed roads may not use their road movement factor, but are limited to their cross country factor. In addition, ground vehicles (except air cushion vehicles) must pay quadruple costs for any movement, including that on unplowed roads. Thus, tracked vehicles moving in a woods would pay double movement costs for the woods and quadruple again for the snow cover. Thus, they would be paying octuple costs (i.e., 8 cm for every centimeter actually moved).

16.4 Other Arctic or Winter Conditions

The following other arctic or winter effects may come into play in the course of a game, at the referee's discretion.

16.41 Frost: Frost reduces the effects of mud by one level. For every two hours of frost, reduce the mud level by one additional level, so that after three hours of frost heavy mud is reduced to light mud.

16.42 Ice: Ice affects the movement of all ground vehicles (except air cushion vehicles) by doubling their movement costs on all types of terrain, including roads. In addition, the formation of ice may allow stands to move across frozen bodies of water. The possible levels of lake ice thickness are expressed as the same weight classes as bridges (i.e., class I through class VI).

Note that class 0 ice is not open water, but water with a crust of ice too thin to support personnel. Also, note that one class of ice can blend into another level (up or down one) without necessarily showing any surface indications.

If a stand attempts to move on lake ice that is not frozen enough to support it, the stand breaks though the ice. Personnel stands take one hit and are moved back to the last place on the lake ice that could support them. Vehicles and towed weapons are removed from play.

In areas with snow cover, a frozen lake may be hidden by the cover and not visible, and will look as if it is a snow-covered clearing. In games where one side or both are not familiar with the terrain, these lakes will not be shown as such on the playing surface, but rather the referee will keep track of them on a map. The referee will check to see if a stand moving on to a snow-covered lake will break through the ice. Stationary personnel stands or any patrol stand will be able to determine that they are on a snow-covered lake and must be informed of this fact by the referee immediately when they end movement on the ice.
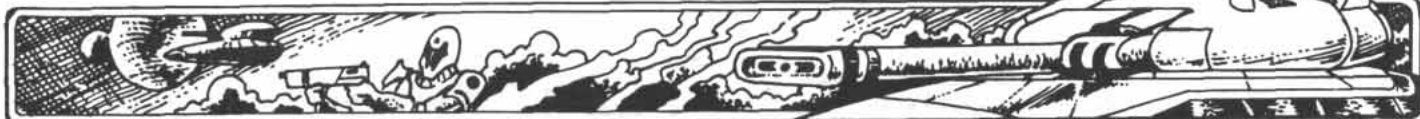
RULE 17: ALIEN ATMOSPHERES

The basic rules assume an Earth-type atmosphere. Unusual atmospheres have several effects. Some are on combat specifically, but most are general effects which can complicate any activity.

17.1 Weapons Effects

Atmospheric friction and opacity to bolts of energy can alter the performance of weapons. These changes are characterized as changes in range for purposes of penetration only and do not affect the difficulty levels of hitting targets at various ranges. Atmospheric taint does not affect these figures; only relative density does.

17.11 Plasma, Fusion and Slug Weapons: In Vacuum or Trace atmospheres, weapons use their short-range penetration number at all ranges. In Very Thin atmospheres, weapons use the penetration value for one range band less than the target is at. In Thin, Standard and Dense atmospheres, weapons use the normal printed values. In Exotic, Corrosive and Insidious atmospheres, they use the penetration for one range band farther than the target really is, except that fire at short range is not modified.

Atmosphere	Weapons Effects
Vacuum, Trace	Use short range penetration at all ranges
Very Thin	Penetration as one range band closer, but no effect at short range
Thin, Standard, Dense	Use normal values
Exotic, Corrosive, Insidious	Penetration as one range band farther, but no effect at short range

17.12 Lasers: In Vacuum, Trace, or Very Thin atmospheres, lasers use their short-range penetration number at all ranges.

In Thin atmospheres, lasers use the penetration value for two range bands less than the target is.

In Standard atmospheres, lasers use the normal printed values.

In Dense atmospheres, they use the penetration for one range band farther than the target really is.

In Exotic, Insidious and Corrosive atmospheres, they use the penetration for three range bands farther than the target really is. (I.e., they may only fire at short range and do so using the extreme-range penetration values.)

Atmosphere	Weapons Effects
Vacuum, Trace, Very Thin	Use short range penetration at all ranges
Thin	Penetration as two range bands closer
Standard	Use normal values
Dense	Penetration as one range band farther
Exotic, Corrosive, Insidious	Penetration as three range bands farther

17.3 Planetary Bombardment: Lasers and particle accelerators use different range bands for damage and penetration, based on the atmosphere type, as shown below.

Atmosphere	Laser	Particle Accelerator
Vacuum, Trace, Very Thin	Short	Short
Very Thin	Short	Medium
Thin	Medium	Long
Standard	Medium	Extreme
Dense	Long	Not allowed
Exotic, Corrosive, Insidious	Extreme	Not allowed

17.2 Personnel Effects

Worlds with Thin, Standard and Dense atmospheres are all breathable without additional preparation. Tainted atmospheres require personnel to use filtering systems, either masks on individuals or vehicle filter systems.

Worlds with Trace and Very Thin atmospheres require the use of oxygen tanks and eye and ear protection, or sealed vehicles with life support. Worlds with no atmospheres require the use of vacuum suits. Worlds with Exotic, Corrosive or Insidious atmospheres all require the use of oxygen tanks plus additional protection: eye protection in Exotic atmospheres, and vac suits, combat armor or battle dress in Corrosive and Insidious atmospheres.

Vacuum, Trace, Very Thin, Exotic, Corrosive and Insidious atmospheres are all collectively termed hostile atmospheres. Units in hostile atmospheres can take one fewer hits than in a nonhostile atmosphere. The first hit on Elite stands is marked with a yellow marker. The first hit on Veteran stands is marked with a red marker (and they are forced back and pinned). The first hit on both Experienced and Novice stands eliminates them.

17.3 Other Technical Effects

The following additional factors affect play of the game on alien worlds.

17.31 Communication: Worlds with Vacuum, Trace and Very Thin atmospheres do not have an ionosphere to reflect radio waves back to the planet's surface. As a result, all broadcast communicators (radios) become effective only while in line of sight of the target of the communication.

Staff radio stands may not convert operational commanders to strategic commanders. Although they can communicate with stands to which they have a direct LOS, operational commanders already have that capability.

Forward observers and spotters for indirect fire missions must have either a line of sight back to the firing unit or an uplink satellite communication link.

Exotic, Corrosive and Insidious atmospheres may have a high degree of radio interference, which can disrupt both broadcast and tight beam uplink communications on an irregular basis. As this can vary greatly from world to world; the referee is left to exercise unlimited discretion in this regard.

17.32 Air Breathers: No air-breathing machinery (such as

jet engines, internal combustion engines, etc.) can function on Vacuum, Trace, Exotic, Corrosive or Insidious atmosphere worlds. They can function in Very Thin atmospheres if fitted with specially designed intake compressors.

17.33 Airplanes: Aircraft cannot fly at all in Vacuum, Trace or Very Thin atmospheres, nor can they fly in an atmospheric density less than that of the world for which they were designed. For example, an airplane designed for use in a Standard atmosphere could fly in a Dense atmosphere, but not in a Thin atmosphere.

Exotic, Corrosive and Insidious atmospheres are all considered to have the same approximate pressure for this purpose, and all are denser than a Dense atmosphere.

17.34 Hovercraft: Hovercraft/air cushion vehicles cannot function in Vacuum or Trace atmospheres. Their movement allowances are quartered in Very Thin atmospheres and halved in Thin atmospheres.

17.35 Maintenance: Exotic, Corrosive and Insidious atmospheres do cumulative damage to all vehicles and equipment. This is handled by increasing the maintenance points of vehicles in a unit, and thus increasing the need for maintenance personnel. This is only important in campaign games (see **Rule 24.2: Mechanics**).

In Exotic atmospheres, multiply the maintenance point value of all unsealed equipment by 1.5. In Corrosive atmospheres, double the maintenance point value, and in Insidious atmospheres, quadruple it.

Completely sealed vehicles and equipment, such as submarines, spaceships, and battledress, use the multipliers 1, 1.5 and 2, respectively.

Maintenance Point Multiplier

Atmosphere	Unsealed	Sealed
Exotic	1.5	Unmodified
Corrosive	2	1.5
Insidious	4	2
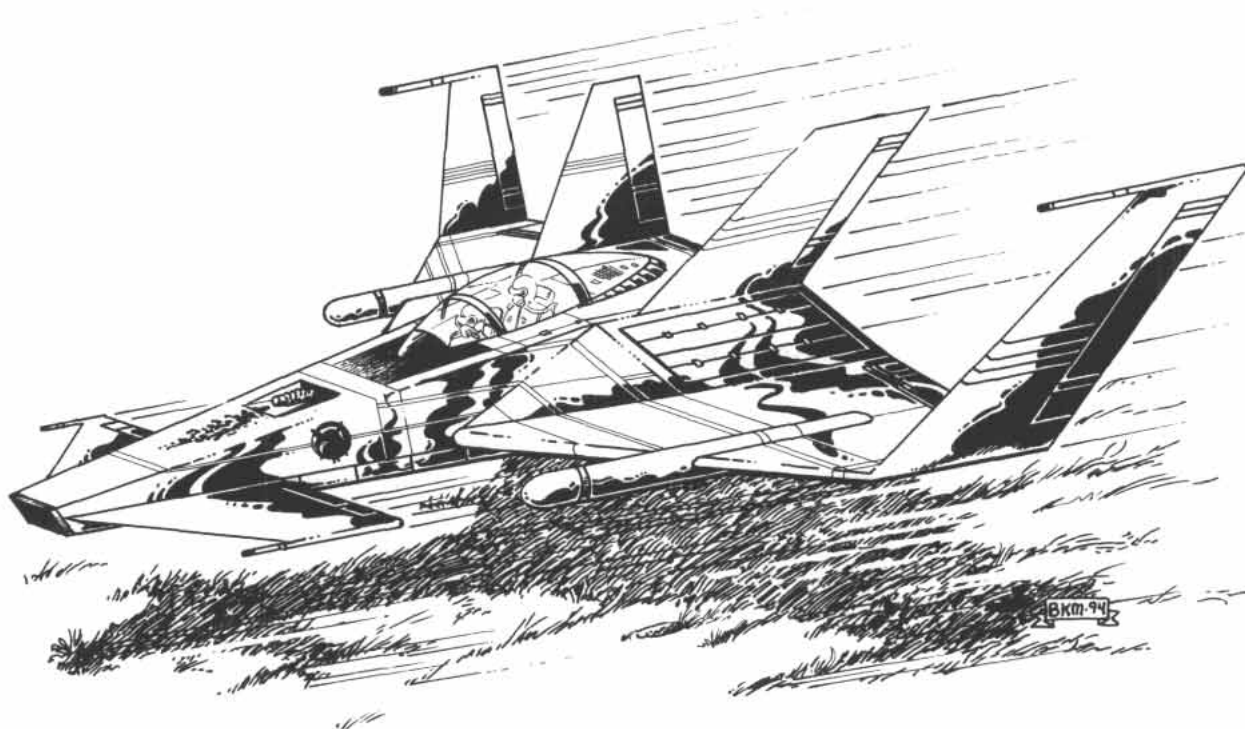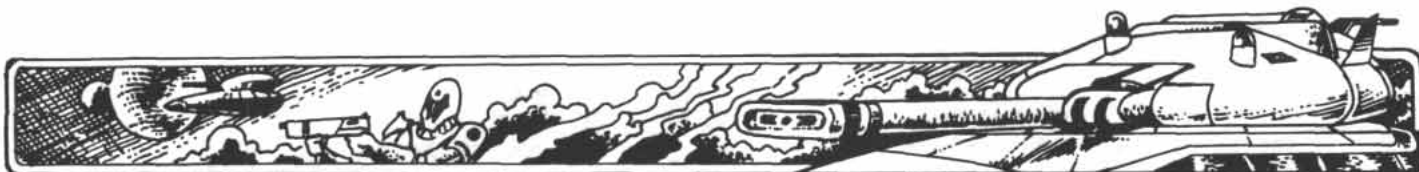
RULE 18: ENGINEERING

The following engineering rules are intended mainly for pregame or campaign purposes. The referee may allow a side to a set number of hours before the game starts to engage in engineering tasks. Players need to bear in mind that times given below represent ideal conditions and that they can be modified by terrain, weather and other considerations imposed by the referee.

18.1 Engineer Stands

Engineer stands are those that are equipped and trained to carry out combat engineering and combat construction tasks. They are listed as such in the relevant TO&E for various countries. In some cases, nonengineer personnel stands may help carry out specific engineering tasks, but those cases are specifically listed below. To replace one engineer stand at a task (where it is allowed), two nonengineer stands must be employed. Single-figure command stands, staff stands and pack animal stands may not be used for engineering purposes. Mounted stands (bicycle, motorcycle, grav cycle and cavalry stands) must be dismounted (per Rule 12.13).

18.2 Engineers and Bridges

As mentioned in Rule 11.31, there are six classes of bridges in the game system, labelled with Roman numerals I through VI. Portable bridging equipment is labelled in the same way. The bridge class represents the highest class of vehicle or towed weapon allowed to cross it.

18.21 Portable Bridges: Portable bridges are sets of prefabricated components designed for assembly on-site by engineers. A single unit of bridging equipment can be used to assemble a 2cm span of bridge of the unit's nominal weight, a 1cm span of bridge one weight class higher, or a 4 cm span of bridge of one weight class less.

Thus, a set of unit IV bridge equipment could be used to assemble 4 cm of class III bridge, or 2 cm of class IV bridge, or 1 cm of class V bridge. This upgrade or downgrade may only be done by one level. The class IV bridge noted above could be converted into twice as much class III bridge or half as much class V bridge, but not into four times as much class II bridges or one-quarter as much class VI bridge.

Each unit of bridge is carried on a vehicle or a trailer towed behind a vehicle. At lower tech levels, it is animal-drawn. At tech level 7 and above, special amphibious vehicles with the bridge unit built in can drive directly into the water and self-deploy.

Portable bridge units at tech levels up to 5 each require three stands of engineers to deploy and require one full hour per unit to place. If enough engineers are available, multiple units may be placed simultaneously.

Portable bridge units at tech level 6 and above each require a single engineer stand to deploy and require two turns per unit to place.

Self-deploying portable bridge units require only the vehicle crew to deploy and take only one full turn to place.

Bridges, ferries and other items of engineering equipment used to cross streams are limited to points where the riverbanks are gentle enough to allow for the loading and unloading of the equipment. Such places should be marked on the referee's map before the start of the game and revealed to players as the scenario dictates. Three engineer stands can build a ramp in nonsteep-sided river banks in one hour (12 game turns), or have an earthmover do the task in three game turns.

18.22 Building Bridges: Bridges may be emplaced using prefabricated components or built from locally procured materials. Materials for bridges of class I and II should be readily available in most places. Materials for bridges of higher classes should be increasingly scarce as the weight class rises. The number of stands needed and the time needed to emplace/build a bridge (in hours) is noted on the Bridging table below.

Bridging

Type	Stands	Hours to Emplace	Hours to Build	Hours to Repair
Class I	4*	1	3	1.5
Class II	4*	1	4	2
Class III	10*	2	6	3
Class IV	10*	2	8	4
Class V	16*	4	16	8
Class VI	16*	8	32	16

*Up to half the stands needed to emplace/build/repair a bridge may be nonengineer stands. However, the time needed to build the bridge is doubled if any nonengineer stands are used. Thus, a class V bridge could be built with two engineer stands and two infantry stands, but would take 32 hours to complete. Likewise, a class V bridge could be repaired with two engineer stands and two infantry stands, but it would take 16 hours.

18.23 Repairing Bridges: Bridges which are damaged due to artillery, aircraft or demolitions may be repaired, but a bridge may never be repaired to a condition better than its starting class. A damaged class V bridge may be repaired back to class V, but no higher. While the bridge is being repaired, it may not be used by any units.

Repairing stands must be continually in contact with the bridge and must not be fired upon; otherwise, the turn when firing is received does not count. The time needed to repair a bridge is listed in hours, as well as the number of stands needed to do the work, noted on the Bridging table above.

18.24 Ferries: Portable bridging equipment may be to used to assemble ferries to transport stands across a river. The number and type of ferries that can be assembled are dependent upon the bridge class: Each unit of bridge can only be converted into one ferry of the same class or two ferries of the next lower class. A class IV bridge, for example, could be used to make one class IV ferry or two class III ferries, but could not be made into a ferry of any other class.

A ferry may transport only stands of its own class or below,

and may only carry one stand across the river at a time (stands loaded into transport vehicles or stands carrying cargo count as one stand for this purpose). Bulk cargo may be carried on ferries provided a stand is present on each riverbank to load/unload (it takes half a turn to load/unload a ton of cargo).

A ferry can cross a river up to 25 cm wide in a half move, and up to 50 cm wide in a full move.

It requires half a turn to load/unload a ferry.

The time needed to assemble a ferry in hours, the number of stands needed to do the work, the ferry's cargo capacity and the number of hits required to sink a ferry are noted in the Ferry table, below.

Ferry Table

Ferry Class	Stands	Hours to Build	Cargo Capy	Damage To Sink
Class I	1	0.5	1	1
Class II	1	1	3	1
Class III	2	1	8	2
Class IV	2	1.5	20	3
Class V	2	2	30	4
Class VI	3	2	36	4

A ferry counts as a soft vehicle for the purposes of fire. Passengers or cargo on sunken ferries are removed from play unless the ferry is within 2 cm of the shore. If the ferry is within 2 cm of the shore when sunk, personnel stands take one hit and are placed on the shore (all cargo is eliminated).

18.241 Improvised Ferries: Any engineer stand may fabricate a class I ferry from locally available materials, even if the stand has no bridging equipment available, taking twice the time indicated on the table above. This represents a river crossing using improvised rafts from oil drums, logs, etc.

Larger ferries may be constructed from local equipment at the referee's discretion, at twice the time indicated above. Improvised ferries larger than class III should be extremely rare.

18.25 Vehicle-Mounted Bridges: Vehicle-mounted bridges take one-half turn to emplace once they arrive at the point where they are needed. These bridges cannot be used to cross any obstacle more than 2 cm in width, and they may not be converted into ferries. Vehicle-mounted bridges, once emplaced, are destroyed after taking three hits, regardless of their class.

The class of a vehicle-mounted bridge is indicated on the relevant data chart for the vehicle in question.

18.3 Assault Boats

Some engineer units also have access to inflatable or collapsible assault boats as specified in their organization charts. An assault boat may carry either one personnel stand (half, single or double-sized), one class I towed weapon without crew, or one ton of supplies. An assault boat moves 10 cm per turn. It requires half a turn to load/unload an assault boat.

Assault boats can be damaged by small arms fire, explosive fire and aircraft bombs. Armor piercing fire has no appreciable effect on assault boats. One hit is sufficient to sink an assault boat. Passengers or cargo on sunken assault boats are removed from play unless the assault boat is within 2 cm of the shore. If the assault boat is in within 2 cm of the shore when sunk, personnel stands take one hit and are placed on the shore (all cargo is eliminated).

18.4 Minefields

Minefields are laid by engineer stands. They are laid in 5cm by 5cm squares, with every ton of engineering supplies providing enough mines for eight such minefields. In addition, dummy minefields may be placed if the player so wishes (and do not require the consumption of any supplies). Minefields are always marked and visible to the enemy. The easiest way to show them in a game is to use 5cm by 5cm pieces of paper or cardstock, with "actual" or "dummy" written on the square. These are then placed with the writing side down on the playing surface.

When a minefield square is entered by any stand for the first time in a game, the minefield marker is turned over and revealed to be real or dummy. If it is real, it remains on the board; if it is a dummy, it is removed from play.

18.41 Laying Minefields: Minefields may be laid using a number of different techniques.

18.411 Manual Placement: In battle conditions, an engineer stand may lay out two real minefield squares as well as two dummy minefield squares per turn, or the engineer stand may lay out four dummy squares per turn. The stand must be given a *cautious advance* order, but does not move. The minefields must be placed within 10 cm of the location of the stand which is placing the mines.

In nonbattle conditions, each engineer stand can construct up to eight actual minefields and eight dummy minefield squares, or a total of 16 dummy minefield squares in one hour.

18.412 Minelayers: Each minelayer can place 12 uncamouflaged or six camouflaged minefields per turn. Minelayers carry up to 30 minefield squares.

18.413 Mine Launchers: Mine launchers are a quick means of placing uncamouflaged minefields. Each launcher can hold up to eight mine squares, and place them in a single turn within 50 cm of the location of the launcher. All mines launched at the same time must be adjacent to one another.

The mines are launched in the General Fire sub-phase, subject to the normal movement and fire restrictions. The launcher need not place all the mines at one time, but may place some, move on the following turn, and place another field. Once empty, a mine launcher may be reloaded by an engineer stand in one turn.

18.414 Remotely Delivered Mines (RDM): Mines may be artillery or dropped by flying vehicles. RDM minefields are always 25 cm in diameter. The mine value listed for the round is its chance of obtaining a hit. Each round covers the area indicated by its burst radius. The uncamouflaged minefield covers an area 10 inches by 15 inches and may be either AP or AT. One round of each type of mine may be fired into the same
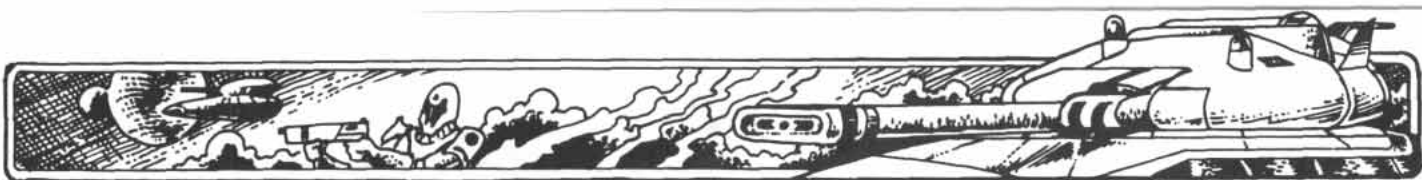
area to produce a mixed minefield. Artillery battalions of three weapons may deliver one minefield per turn; MLRS battalions may place two minefields per turn.

18.42 Minefield Attacks: At the instant that a stand enters a real minefield square, it is attacked. Regardless of the result of the attack, the stand may elect to cease movement for the remainder of the turn at that point. If so, it is not considered in the minefield, but halted at the edge. If the player elects to continue the advance through the minefield, a second attack on the stand occurs. If the stand moves into the same minefield on a following turn, it will suffer the results of the additional attack as well.

If a stand advances into a new minefield square as the result of its movement, the procedure is repeated.

18.421 Conventional Minefields: To resolve the minefield attack on a stand, roll 1D20 All vehicles and personnel stands are hit on a die roll of 1 or 2. The die roll result is halved if the stand is conducting a *rapid advance* and quartered if conducting *travel* movement.

Mines have no effect on towed weapons. Vehicles and personnel stands which take a hit from mines must check morale (in addition to suffering the hit).

18.422 RDMs: Remotely delivered minefields (RDMs) have a variable chance of hitting a stand passing through, based on the minefield value of the mine ammunition fired. If several shots are fired into an area, the values are added to determine the chance of a hit.

For example, a howitzer has RDM ammunition with a minefield value of 2. The howitzer fires two rounds at the same target. The resulting minefield has a value of 4, so any unit moving through it will be hit on a die roll of 4 or more.

18.43 Detecting and Lifting Minefields: An engineer stand may detect whether a minefield is real or a dummy by moving adjacent to the field and spending one turn there with a *cautious advance* order. At the end of the turn, the minefield marker can be turned over without causing any casualties on the engineer stand.

18.431 Manual Lifting of Mines: An engineer stand may clear a path through a real minefield by moving adjacent to the field, then spending two turns there with a *cautious advance* order. The stand is not attacked by a minefield while it clears its path. Once a path has been cleared, the minefield may be removed from the playing surface, as it is no longer relevant.

18.432 Mine Plows: Mine plows are mounted on tracked vehicles and each turn may be either in the "up" or "down" position. Mine plows in the up position do not affect the speed of the vehicle on which they are mounted. When placed down and in use, the vehicle's speed is halved, and there is a chance that the roller will be damaged. After the vehicle has passed through the minefield, roll 1D20, with a roll of a 1-6 indicating that the plow is damaged and can no longer be used. A vehicle with a damaged plow also takes a hit and moves at one-quarter speed until the damaged plow is jettisoned (which takes one full turn, during which time the vehicle must remain stationary and not receive fire).

18.433 Line Charges: Line charges are used to breach minefields. They are either mounted on vehicles or carried on trailers. Each weapon has four line charges, each of which may breach one minefield. To breach a minefield, the vehicle/trailer must start its turn adjacent to the minefield. Breaching minefield counts as direct fire and is resolved as a close-range attack. A successful attack opens a breach 5 cm deep and wide enough for vehicles to pass through in single file.

18.5 Fortifications

Stands may dig in for protection from enemy fire. The actual type of protection will depend on the time spent digging in, as well as the type of stand doing the work. Stands may not fire at enemy units on turns that they are digging fortifications. The time needed to carry out a task should be doubled in adverse weather or terrain conditions (at the referee's discretion). Fortifications may not be constructed in flooded areas, heavy mud or any type of permanent mud. Fortifications can be built in ground that may later turn to mud, and such a change has no effect upon them.

18.51 Digging In: Digging in is defined as foxholes, small slit trenches and similar field fortifications. Any personnel stand may dig in by remaining stationary for two hours at the same point. At the end of that time, the stand is considered to be in cover for purposes of small arms fire and morale as long as it remains in that location.

18.52 Constructing Fortifications and Obstacles:

18.521 Entrenchments and Weapons Pits: Four engineer or nonengineer personnel stands will produce one entrenchment or weapons pit in eight hours. One earthmover will produce one entrenchment or weapons pit in one hour.

18.522 Bunkers: An engineer stand may build a bunker in eight hours or convert two previously built entrenchments to bunkers in eight hours.

18.523 Tank Ramps: An engineer stand may construct one tank ramp in four hours. One earthmover may build one tank ramp in a half hour (six game turns).

18.524 Antitank Ditches: An engineer stand may build 1 cm of antitank ditch in four hours. An earthmover may dig 1 cm of antitank ditch in a half hour (six game turns)

An engineer stand may create a crossing point on an existing antitank ditch by moving to a point on the ditch and spending four turns there with a *cautious advance* order building the crossing point. An earthmover may construct a crossing point in one turn.

18.525 Barbed Wire: An engineer stand may place one ton of wire in one hour. Each ton covers 10 cm of frontage. Nonengineer stands may also place barbed wire, but at a rate of 5 cm per hour. Engineer stands may breach barbed wire by moving adjacent to the wire and spending one turn there with a *cautious advance* order. At the end of that turn, there is a gap 1 cm wide created in the wire.

18.526 Road Craters: An engineer stand may crater a road in one hour (12 turns), or an earthmover in three turns. The crater may be filled in by hand by an engineer in a half hour

(six turns) or by an earthmover in two turns.

18.527 Abatis: An engineer stand in woods or forest may construct an abatis at a rate of 1 cm per turn when given a *cautious advance* order. Earthmovers can construct abatis at a rate of 4 cm per turn. Abatis is impassible to all stands.

An engineer stand may make a 1 cm breach in abatis in two turns. An earthmover may make a 1cm breach in one turn.

18.528 Antivehicular Obstacles: These are specially built impediments to the passage of ground vehicles, such as dragon's teeth, steel I-beam hedgehogs, log jack-knives and similar obstacles. Ground vehicles cannot cross antivehicular obstacles.

An engineer stand can built 1 cm of antivehicular obstacles per hour, consuming one tenth of a ton of engineer supplies in the process. An engineer stand can clear a path through them at rate of 1 cm per turn, provided they do nothing else during that time. Earthmovers do not assist in building antivehicular obstacles, but can clear a path through them at the rate of 1 cm per turn.

18.53 Destruction: Earthmovers can be used to destroy a bunker, entrenchment, weapons pit, tank ramp or pillbox if they start the turn adjacent to it and spend a full turn there under a *full movement* order. At the end of the Final Fire subphase, the fortification is destroyed and its inhabitants eliminated if the earthmover has not been eliminated or forced back.
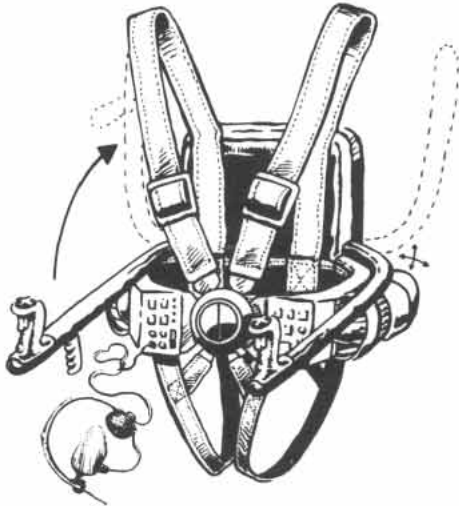
18.6 Demolitions

Demolitions may be emplaced on or in structures such as bridges or buildings. Each ton of demolitions will cause three points of damage when detonated. A class IV bridge, which needs 12 points of damage to completely destroy it, can therefore be destroyed by four tons of emplaced explosive.

An engineer stand may emplace one ton of demolitions in an hour. When a structure is prepared for demolition, the preparing player must specify a point from which the charge will be detonated. This point is where the detonating wires/fuses have been brought together, and may be on any side of the structure, as long as it is within 10 cm of it.

A player may attempt to detonate a prepared structure in either battle or nonbattle conditions. In any Fire Phase that a stationary engineer stand is present at the detonation point, it may attempt to set off the charge. The chance of success is the same as for a short-range direct fire attack to hit based on the type of stand that placed the charge. If stands placing the charge were of different troop quality, use the lowest troop quality for the die roll.

If the roll is unsuccessful, the player must reset the charges. The engineer stand at the detonation point must spend one turn stationary with a *cautious advance* order. The subsequent attempt to set off the charge will use the troop quality of the engineer stand that reset the charges.

If an opposing engineer stand reaches the demolitions point, or any point directly between the demolitions and the detonation point, and remains there for one turn stationary, the wires are cut and the charge may not be detonated. The charge may only be reset if the enemy stand is driven off, then a friendly engineer stand regains the point held by the enemy stand and spends a turn stationary restoring the wire.

When the charge is set off, all stands in or on the structure are considered to have taken an HE attack equal to half the value of the damage points that will be caused, rounding fractions down.

The stands receive no cover modifier for the attack. If the structure is destroyed by the explosion, any stand on or in the structure is also destroyed.

18.7 Mobility Assistance

Breaks in the ground, such as creeks and gullies, can limit mobility of ground vehicles. Engineers may create a crossing point over such an obstacle in the same way as for an antitank ditch (see Rule 18.524 above).

RULE 19: ELECTRONIC WARFARE

Electronic warfare (EW) involves the use of radio and radar locators, radio and radar jammers, decoys, and other means of reducing a unit's detectability.

19.1 Direction Finders

Direction finders are used to detect the source of any active electromagnetic emissions. These include broadcast radio, radar, active EMS and lasers. Each direction finder is designed to detect and locate only one type of electromagnetic emission, so a radar locator may only locate radar emissions, not radio or laser. The exception to this is EMS direction finders, which may detect any form of emission. All passive EMS sensors have direction-finding capability.

19.11 Procedure: Locating the hostile emitter is a task using the accuracy values for the troop type operating the direction finder but using the range of the active emitter. All ranges are treated as being one range band closer than they actually are, so a direction finder has an extreme range equal to twice the extreme range of the active emitter being located.

For example, a direction finder is used to detect a radio communicator with a short range of 3 km. The actual range from the direction finder to the radio is 12 km, which is the long range of the radio. The detection task is resolved as a medium-range task using the asset of the crew operating the direction finder.

Each direction finder may make only one detection attempt per turn. This is usually made against the emitter which the detector has the best chance of locating (i.e., the closest, strongest signal). A player may deliberately attempt to locate a weaker signal instead, but suffers a +1 diff mod penalty for doing so.

19.12 Effects: Successful detection of an emitter allows the detecting player to discover the approximate location and power of the emitter, to fire an antiradiation missile in the current turn, or to call an indirect area fire mission on the emitter the following turn.

19.121 Anti-radiation Missiles (ARMs): An antiradiation missile is a special variety of homing missile designed to home on electromagnetic emissions. Firing procedure is the same as for other homing missiles, with the success roll being the same as it was to detect and locate the emitter. (A separate die roll is required for the actual missile fire, however.)

19.122 Area Fire Missions: An area fire mission called on an active emitter is fired using the normal procedure for such a mission. The chance of the mission being on target is the same as it was to detect and locate the emitter. (A separate die roll is required for the actual fire mission, however.)

19.13 Common Communicators: Different command levels routinely use different powers of radios to communicate. No radios are in use before tech level 5. At tech level 5, count each unit as being three command levels lower than on the following chart. At tech level 6, count it as one level lower. At tech levels 7 and 8, use the chart as printed. At tech level 9 and above, treat each unit as being one tech level higher than on the chart.

For example, a tech level 5 company has no radio available. A tech level 12 company has a 30km short-range radio.

Communicators

Level	Short Range
Squad	—
Platoon	3
Company	3
Battalion	30
Brigade	30
Division+	300

19.2 Jamming

Jammers broadcast a series of conflicting signals on a given frequency or frequencies to overwhelm or confuse other signals. Radio jammers disrupt communications, while sensor jammers make detection tasks more difficult.

19.21 Radio Jamming: Radio jamming takes place during the Command Phase and continues throughout the turn.

19.211 Procedure: Each jammer has a set of ranges, just as with weapons and sensors. The jamming player rolls the die once and then consults the success numbers for the different range bands. If the die roll is sufficiently low to succeed at a range band, the jamming is successful at that range band and all closer ones.

For each tech level the jammer is above or below the enemy radios being jammed, apply a – or +diff mod of 1.

For example, a Veteran crew mans a radio jammer with a short range of 3 km. Veterans have success numbers of 13 at short range, 6 at medium, 3 at long and 1 at extreme. The player rolls a 7, which is too high for medium, long or extreme, but is sufficient for a close-range success. All enemy radios within short range (3 km) of the jammer are jammed, if they are from the same tech level. No radios from higher tech levels would be jammed. Radios from one tech level lower would be jammed at a medium range (6 km), 2 tech levels lower at long range (12 km) and 3 tech levels lower at extreme range (24 km).

19.212 Effects: Radio jamming affects only stands which rely on radio for communication. Telephone and uplink staff stands, for example, are not affected, nor are any stands which have line of sight laser or maser communicators (and are communicating to someone in direct line of sight) or uplink tight-beam communicators.

All command stands being jammed and issuing operational or strategic orders must make a short-range task roll to successfully place the order.

All indirect fire accuracy rolls from units which rely on a jammed radio link between the observer and the weapons, observer and FDC, or FDC and weapons is conducted with a +1 diff mod.

Whenever a jammer is in use and the opposing side has a radio locator, the jammer is automatically located.

19.22 Sensor Jamming: Vehicles equipped with jammers

may attempt to jam enemy units which are attempting to detect the vehicle. Specially equipped electronic warfare vehicles with jammers may attempt to jam enemy units which are attempting to detect any friendly unit within the short range of the jammer mounted on the vehicle.

Jammers consist of radar jammers and EMS jammers. Radar jammers may only be used against hostile radars, while EMS jammers are used against either radars or active EMS sensors.

19.221 Procedure: The jamming task is rolled once for each enemy sensor attempting to detect the target. The success of the task is based on the range from the jammer to the detecting unit and the quality of the crew manning the jammer. The difference in tech level between the jammer and sensor (if any) is applied as a + or - diff mod to the jamming attempt.

19.222 Effect: If the jamming attempt is successful, the detection attempt is made with a +1 diff mod.

19.3 Sensor Decoys

Many vehicles are equipped with sensor decoys. These consist of a mix of anti-laser aerosols, chaff (light-weight strips of radar-absorbing or radar-reflecting material) and flares. These decoys are designed to confuse sensors, target designators and rangefinders which rely on lasers, active electromagnetic emissions (such as radar) or detection of infrared radiation.

19.31 Systems Affected: All detection attempts using radar, active or passive EMS, ladar and HRT are affected by decoys. All target designation attempts using lasers or active EMS are affected by decoys. All direct fire attempts by tech level 7+ large-caliber guns (which rely on laser or active EMS rangefinders) are affected by decoys.

19.32 Effects: Decoys cause affected firing and detection tasks to be carried out with a +1 diff mod if from the same tech level. If the decoy is from a higher tech level than the sensing or firing unit, the task is carried out with a +2 diff mod. Decoys from lower tech levels than the sensing or firing unit have no effect.

19.33 Limits: Vehicles have a limited number of decoys, listed in parentheses on the vehicle card. That is the number of turns that a vehicle may use decoys. Each turn in which any affected sensor or fire attempt is made, the vehicle automatically fires decoys unless the owning player deliberately abstains.

TL 9
3000 KM
Communicator

19.4 Stealth and EMM

Stealth and electromagnetic masking (EMM) are both means of reducing the signature of vehicles versus certain common sensors.

19.41 Stealth Vehicles: Some vehicles are listed as being stealth designs. Spotting attempts made against stealth vehicles using radar or thermal/IR sensors are made with a +1 diff mod. If the stealth design is from a higher tech level than the sensor, the detection roll is made with a +2 diff mod.

19.42 EMM: Electromagnetic masking is an advanced form of stealth design. EMM-equipped vehicles will apply a diff mod of +1 or +2 (depending on the vehicle) to detection attempts against it using thermal or radar and may apply a +1 diff mod versus active or passive EMS (again depending on the vehicle). The exact diff mods applied are noted on the vehicle's data entry.
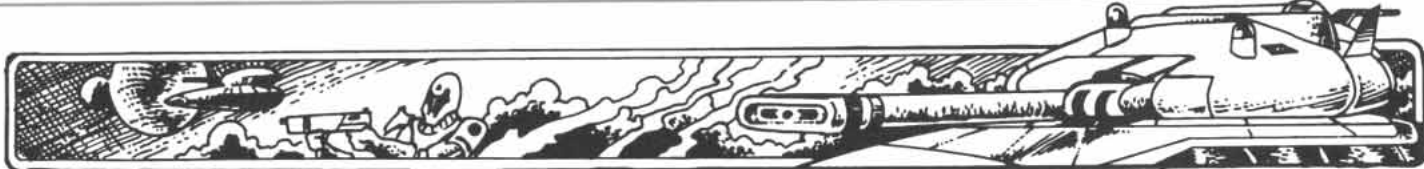
RULE 20: METEORIC ASSAULTS

Meteoric assaults from orbit by means of drop capsules require planning and forethought. In most cases, meteoric assaults will occur at the start of a scenario, and in all cases should have a mission order drawn up in advance either by the players or the referee.

All personnel stands, class I towed weapons and supplies may be dropped by drop capsule. Vehicles and towed weapons of class II or heavier may not be dropped by drop capsule. Animals (cavalry stands, pack animals or animal-drawn vehicles) may not be dropped by drop capsule. Supplies are dropped in one-ton increments.

20.1 Mission Orders

The mission order needs to indicate the specific stands comprising each "stick" of drop capsules, the turn or arrival of each stick, and the drop zone for each stick.

A stick may consist of as many or as few stands as desired, but as a practical matter should seldom exceed 10.

Each drop zone center must be at least 50 cm from any other drop zone center. No more than one stick may use a single drop zone in the same turn. If the drop is to be spread out over several turns, each turn of the drop must be specified and planned in advance.

20.2 Fire at Drop Capsules

Ground-based weapons may fire at drop capsules, but some drop capsules are outfitted with decoys and other countermeasure devices to avoid this fire.

20.21 Allowed Weapons: Only plus penetration weapons may fire at drop capsules; small arms may not.

20.22 Range: Weapons firing at drop capsules measure their range to the point of landing and then add 20 cm.

20.23 Agility: Drop capsules in reentry (when fired upon by long-range planetary defense missiles or beam weapons) have an agility of 9, plus or minus the difference in tech levels between the drop capsule and the fire control of the firing weapon. When landing (and fired on by weapons deployed on the gaming table), they have an agility of 4, plus or minus the tech level difference.

Some drop capsules have limited evasion ability, while others do not. Weapons with point defense fire control double their fire control bonus when firing at nonevading drop capsules.

20.24 Decoys: Some drop capsules have decoys. For the effects of decoys, see Rule 19.3.

Each hit on a drop capsule causes a hit to the stand carried by the drop capsule, but has no other effect.
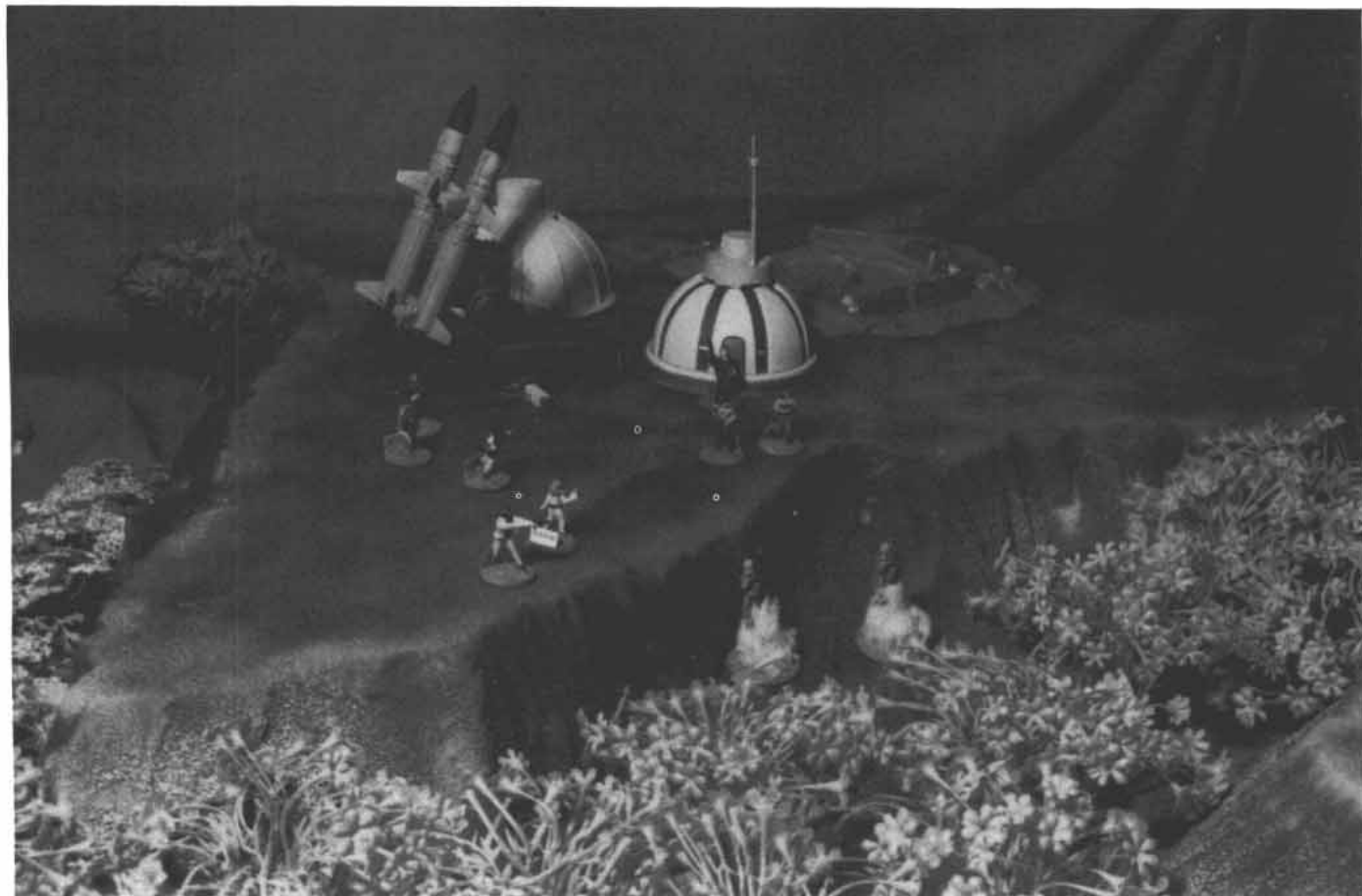
20.3 Drop Capsule Landings

Drop capsule landings are resolved out in the following manner. Each stand should have a 2cm by 2cm square of paper prepared, marked with its unique designation. Gun crews and weapons which are dropped by air should have a separate square for the crew, ammunition and weapon. The squares should be placed on a ruler or yardstick, with the number up or down as the player wishes, in whatever sequence is desired, their edges touching but not overlapping. The ruler should be placed at the drop zone, with the end of the ruler placed at the drop point and the ruler aligned along the flight path. The ruler then is turned over to dump the squares, which should be allowed to flutter to the playing surface unhindered.

The distance above the playing surface the ruler is held will be determined by the troop quality of the troops making the drop. The heights for each stand troop quality level are shown below.

Meteoric Assault Drop Height

Type	Height
Elite	15 cm
Veteran	30 cm
Experienced	60 cm
Novice	120 cm

Squares that fall with the marked side up are replaced by their actual stands and a P1 marker. Squares that fall with their marked side down are given a P2 marker. Squares that fall with their marked side down in woods/forest, buildings or swamps, take one hit and a P2 marker.

If a square falls marked side down in a lake or deep body of water, then that stand is eliminated and removed from play, unless the troops are equipped with battledress, vac suit or some other form of oxygen apparatus. If so equipped, the stand is placed on the nearest point of land, takes one hit and is marked with a P2 marker.

If the square falls number side up in a lake or deep body of water, the stand is placed on the nearest point of land, takes one hit (unless equipped with battledress or some form of oxygen apparatus) and is marked with a P2 marker. If so equipped, it is placed on the land and is marked with a P2 marker, but does not take a hit.

Squares that fail to land on the playing surface are considered to be lost en route, and are removed from play.

20.4 Armed Drop Capsules

Some drop capsules include missile launch rails for Tac missiles, and once landed, they become fixed missile launchers. Mark the location of these launchers on the map. Each has a limited number of missiles, as specified by the scenario or capsule description.
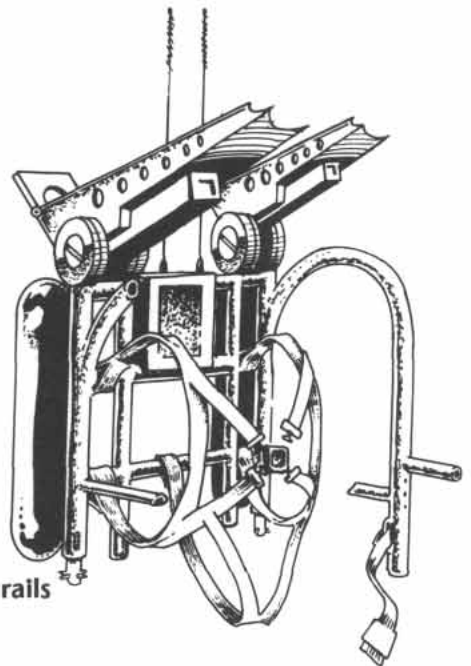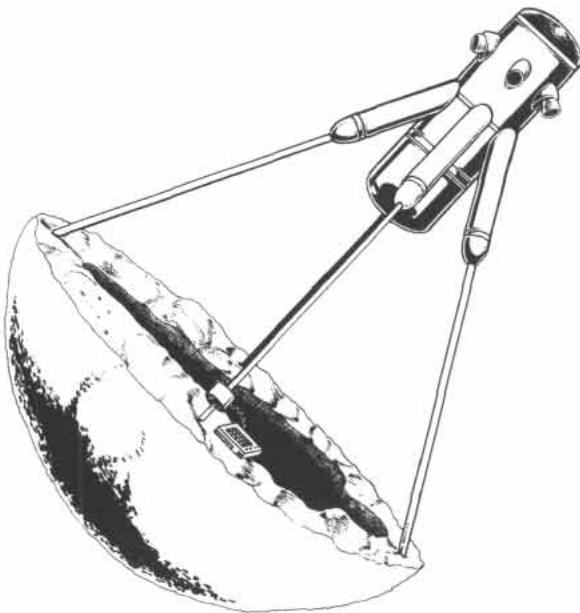
Parachute harness with missile launch rails
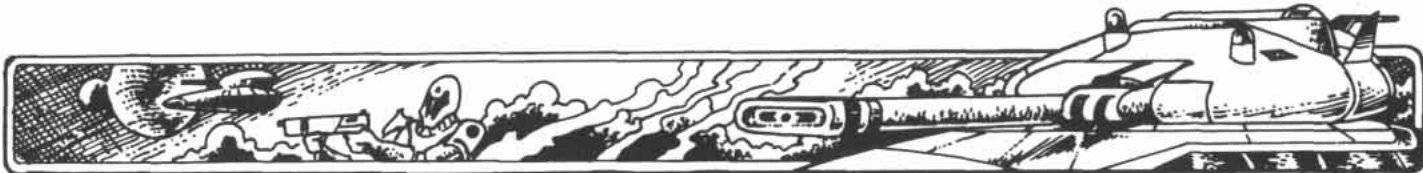
RULE 21: NUCLEAR WEAPONS

Some weapons in the game, mostly missiles, mount nuclear warheads.

21.1 Nuclear Warhead Effects

Nuclear warheads are explosive rounds which do damage as a conventional explosive, with several important differences.

Most explosive rounds have an EP (explosive power) and burst radius (BR) value. Nuclear rounds have these as well (and nuclear rounds always have an EP value of 18). In addition to an explosive power, however, nuclear warheads also have a destruction radius. All stands, weapons, vehicles and structures within the destruction radius of the warhead are eliminated from play. Masonry buildings are reduced to rubble.

21.2 Nuclear Dampers

Because nuclear warheads are hellaciously deadly, most advanced armed forces employ nuclear damper units to protect conventional forces.

Nuclear dampers fire at incoming nuclear warheads using the same procedure as point defense weapons. Nuclear dampers only have a single range, and this is listed under the medium-range column, as all nuclear damper attacks are made using the asset score for medium range. In addition, no diff mods for missile agility are applied. Instead, the only diff mods are a +1 or −1 diff mod per tech level difference between the damper and the warhead.

For example, a tech level 14 damper firing at a tech level 15 missile would use the long-range asset value instead of medium range.

A successful damping roll renders the warhead harmless.

21.3 Lingering Radiation

Nuclear warheads which strike the ground irradiate the soil and leave a high level of residual radiation. For purposes of this rule any warhead fired at a personnel stand on the ground or using NOE movement, a ground vehicle, or a flying vehicle using NOE movement counts as striking the ground.

The radius of lingering radiation of a nuclear warhead is the same as the destruction radius of the warhead. This can be marked with model craters, cut out templates, or just pieces of string if you are particularly lame.

All unprotected units which pass through an area of lingering radiation take a hit. Unprotected units include all personnel stands not in battledress and all open vehicles. Enclosed vehicles do not take damage, nor do personnel in battledress.

All personnel in combat armor and combat environment suits may make saving throws against the radiation damage, using the normal saving throw number of their armor. Personnel stands in other types of armor may not make saving throws.

Nuclear damper units may be used to reduce the long-term environmental hazards of lingering radiation, but have no effect on lingering radiation during the course of a miniatures game scenario.

RULE 22: PSIONICS

Psionics, the ability to harness the extraordinary power of the mind, is widely used in the Zhodani Consulate and, since the collapse of the Third Imperium, has come into wider use in formerly Imperial space. The following rules cover the effects of psionics on combat.

22.1 Teleportation

About 20% of psionic combat specialists can teleport. Psionic teleporters simply appear behind enemy lines. They cannot teleport between positions of dramatically different altitude, so this technique cannot be used to assault from orbit. It is nevertheless a dramatic and effective means of introducing commandoes.

Each teleporter must have a clear mental image of his destination, so each platoon has a "director" present. The director is an adept clairvoyant and telepath who can clairvoyantly scan the target area and then telepathically impress that image on the teleporters.

In order to teleport, a stand must be given a *travel* order. Teleporting into a combat situation, assuming the psion does so from a secure area, is assumed to take place without mishap. Teleporting out again is a task roll conducted as if making a direct-fire attack at long range. Failure means that the stand remains in its original location (but suffers all of the effects of a *travel* order).

22.2 Scramblers

About 20% of psionic combat specialists are "scramblers," gifted telekinetics who pin down enemy stands in preparation for an assault. They accomplish this by telekinetically pulling pins on grenades, squeezing triggers, etc.

Scramblers have an ROF at each different range which is used exactly like a direct fire weapon, except that a "hit" causes no damage, but instead places a Pin-1 marker on the stand.

22.3 Recon

About 40% of psionic combat specialists are recon troops. Each recon specialist is a clairvoyant trained to spot hidden enemy units in likely areas of concealment. Recon specialists have a clairvoyant "sensor" rating used for spotting which is used like any other sensor. Clairvoyant spotting attempts are unaffected by night, weather, smoke, cover or any other normal spotting +diff mod.

22.4 Intel

About 20% of psionic combat specialists are intel officers used to interrogate prisoners using deep mental probes. This has no effect on the tactical battlefield, as virtually all troops facing psionic opponents equip at least their command personnel with psionic shielded helmets.

RULE 23: FORCE COMPOSITION

While players will seldom be in a position to raise, train and equip an army from scratch, they will often come in contact with armies. The following guidelines can help the referee determine the general type of army available to a planet, country or small settlement.

23.1 Army Size

Warlike governments will average about 1% of their populations in the armed forces, while peaceful governments will average only about 0.25% of the population under arms. Governments (worlds or nations) with a population of 1 billion or more halve the percentages listed above.

Not all the armed forces will be in the army, but a substantial part will. Up to 10% of the total will be in the wet navy, and about 20 to 30% will be in the air force (if the world has a tech level high enough to have an air force). The balance will be in the army.

23.11 Number of Units: Instead of dividing the total number of men and women under arms by four to determine how many "stands" there are, then trying to organize them from the ground up, it is much easier to describe the army from the top down.

The army has one division equivalent in service for every 20,000 personnel. For smaller forces, it is more convenient to deal with battalions. Armies have one battalion equivalent for every 2000 personnel.

This does not mean that the troops on a world are necessarily organized into traditional battalions or divisions. They may be grouped into legions, hordes, maniples, tercios, columns or any variety of units. The terms above are used to give a rough idea of the equivalent combat power of the force.

23.12 Unit Strength: A standard "division equivalent" usually consists of 10 maneuver battalions (of about 500 personnel each), 10 support battalions (of 500 each) and up to 10,000 other support personnel not present with the division, but in the military infrastructure.

In smaller armies, a standard "battalion equivalent" usually consists of one maneuver battalion, one support battalion and up to 1000 other personnel in the supporting military infrastructure.

Maneuver battalions are close combat units, including infantry, cavalry, armor, airborne, commando, etc. Support battalions include both combat support (combat engineers, field artillery, air defense artillery, antitank artillery, coast defense artillery, fortress artillery, etc.) and noncombat support (signal, forward supply, transport, maintenance, military police, etc.). Infrastructure includes medical, veterinary, administrative, training, theater and rear area supply, judge advocate general, and general staff personnel.

23.2 Troop Quality

Troop quality is measured by the NPC types who man the unit and the unit's morale. These are determined by the type of society which raises the army. Societies for the purpose of this rule are divided into primitive and advanced as well as into warlike and peaceful.

Primitive societies are generally those which do not have a sufficiently developed technological or industrial base to support space travel. As a rough rule of thumb, societies at tech level 9 and above are advanced, while 8 and below are primitive.

Warlike does not necessarily suggest an aggressive society (although that would certainly qualify as warlike), but can simply indicate a society frequently called upon to defend itself.

Most societies on Balkanized worlds are "warlike," while a government which ruled an entire world and was not called upon to engage in combat very often would be considered "peaceful."

23.21 NPC Type: The following table lists the proportion of units in an army made up of each of the four different NPC types. In general, a unit will be made up almost entirely of the same troop types (with an occasion higher experience stand or group of troops as scouts, leaders or cadres).

	Troop Quality			
Type	Novice	Experienced	Veteran	Elite
Prim. peaceful	75%	25%	—	—
Prim. warlike	60%	30%	10%	—
Adv. peaceful	40%	50%	10%	—
Adv. warlike	—	40%	50%	10%

23.22 Morale: Morale is a function of NPC type as modified by whether the world is peaceful or warlike. A variety of other factors can also affect morale, so the referee should feel free to change the morale rating of the unit by several points up or down from this base.

The table below gives the average morale of each NPC type from peaceful and warlike societies.

	Troop Quality			
Type	Novice	Experienced	Veteran	Elite
Peaceful	10	12	14	18*
Warlike	12	14	18	20

*Peaceful armies do not routinely have Elite NPC units, but may develop them as a result of prolonged combat. See the experience section below.

23.23 Leaders: Separate commanders and combined command stands are available in greater numbers at higher tech levels. The following chart shows which levels have combined command stands and which levels have separate single-figure command stands. The level shown with a separate command stand is the lowest level having that type of stand; all levels above it also have separate command stands.
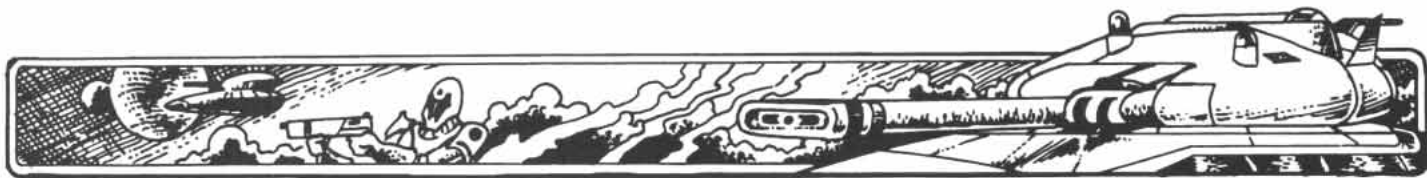
Leadership Level

TL	Combined	Separate
1-3	Battalion	Brigade+
4-6	Company	Battalion+
7-9	Platoon	Company+
10-12	Squad	Platoon+
13-15	—	Squad+

All combined command stands are tactical commanders. All single-figure command stands from company level and above are operational, while all from platoon level and below are tactical.

Command vehicles (such as command tanks) are either operational or tactical, depending on their command level and tech level. Tech level 4-6 company command tanks, for example, are tactical command stands (since if personnel they would be a combined stand), while battalion command tanks at the same tech level would be operational command stands.

23.24 Increasing Experience: At the end of every campaign week in which a unit fought one or more combats, elements of the unit will be promoted in terms of combat proficiency. Ten percent of the surviving stands in the unit will increase one proficiency level. In addition, the number of surviving leaders in the unit will increase by 10%, either by adding additional single-figure command stands or by converting noncommand fireteams to a combination command stand.

The exact stands promoted in experience and/or leadership will be determined by the referee.

23.3 Equipment

Although there is vast variety of equipment possible at different tech levels, some rough direction is possible. Units with good equipment tend to have the highest tech level gear available (if material from multiple tech levels is available) and tend to be more heavily armed, have more armored vehicles, have a higher level of mobility, etc. Poorly equipped troops are almost invariably on foot and have only the most primitive and light weapons available. They are usually used as local defense troops and are not suitable for offensive operations.

The following table is a guide to the proportion of equipment levels in typical armies.

Equipment Level

Type	Poor	Average	Good
Primitive	60%	30%	10%
Advanced	40%	50%	10%

RULE 24: SUPPORT PERSONNEL

The basic TO&Es provided in the book are intended to represent the combat elements of a unit only. When fighting a campaign, however, it becomes more important to take into account the "tail" as well as the "teeth" of a unit.

24.1 Medical Personnel

Medical personnel tend to battle casualties when the unit is engaged in combat missions and monitor the general health of the unit the rest of the time.

24.11 Required Personnel: All medics are noncombatants and may not be used for offensive combat missions. Medics are sometimes armed for self-defense, however, and in some combat environments they are required to fight to protect themselves or their wounded. All combat units requires the following medical personnel:

A unit needs one single-figure medic stand per 10 nonmedic stands (with each single-figure nonmedic stand counting as a quarter of a stand).

A unit needs one dressing station (one fireteam stand of medics which will include one doctor) per 20 nonmedic stands (with each single-figure nonmedic stand counting as a quarter of a stand).

Larger units (brigades and higher) need a field hospital with one stand of medical personnel per 40 nonmedic stands (with each single-figure nonmedic stand counting as a quarter of a stand).

24.12 Effects: Failure to provide sufficient medics will cause the morale of the unit to go down after its first time in combat. Morale will drop by 1 if more than half of the required number of medical stands are in the unit, or by 2 if fewer than half of the required number of stands are provided.

Failure to provide sufficient medical personnel will also cause a deterioration in the unit's health. Before beginning a battle, roll 1D20. The result is the percentage of the stands in the unit which are not present due to sickness. In particularly healthy environments, halve the die roll. In particularly unhealthy environments, double it. The referee determines which stands (usually chosen randomly) are missing.

24.13 Wounded: Whenever a crew stand or fireteam stand is eliminated or a vehicle destroyed, a wounded figure is placed on the table in place of the removed stand. Whenever a single-figure stand is eliminated, roll 1D20. On a roll of 1-5, a wounded figure is placed on the table.

Wounded figures may not move by themselves. Wounded figures may be moved by any other stand, however, including single-figure stands.

Units conducting covert raids or fighting particularly hated or feared enemies will suffer a reduction in morale for leaving wounded behind. Leaving one or more wounded behind will cause a reduction in unit morale of 1. Leaving wounded figures behind equal to 10% of the force's original strength in fireteam stands (with single-figure stands counting as a quarter stand) will cause a morale reduction of 3.

Over the course of an extended campaign, most wounded will return to duty. A returning soldier can be used to replace a single-figure stand or one quarter of a fire team/crew stand.

At tech level 5 and below, one actual soldier will return to duty per recovered wounded figure. The recovered soldier will return to duty after one week.

At tech levels 6 through 10, two actual soldiers will return to duty per recovered wounded figure. The first soldier will return after one week and the second after three weeks.

At tech level 11 and above, three actual soldiers will return to duty per recovered wounded figure. The first soldier will return after one week, the second after three weeks and the third after six weeks.

24.2 Mechanics

All units with any sort of sophisticated machinery require mechanics to provide routine maintenance on vehicles and repair combat damage.

24.21 Required Personnel: Each piece of major equipment in the game has a maintenance point associated with it (as listed in the data annex). One mechanic is required per 50 maintenance points worth of equipment. Mechanics may be in single-figure stands or four-man fireteam stands, whichever is most appropriate to the organization.

One mobile workshop (vehicle-mounted) and a one-ton replacement parts trailer must be provided for every 20 mechanics. Mechanics may serve as vehicle drivers for their own transport vehicles.

24.22 Effects: Failure to provide sufficient maintenance personnel results in vehicles and weapon systems becoming nonoperational.

For each 10% shortage of maintenance personnel, a unit suffers a 1% breakdown rate each week. The referee chooses equipment with a maintenance point total equal to 1% of the unit's total requirements and declares it to be inoperative. If desired, the referee may give a percentage chance of breaking down to a piece of equipment with a larger maintenance point number. A unit which would lose 5 points worth of equipment might instead have a 50% chance of losing a single 10-point item of equipment.

In addition to the above, during each week of intense combat or training operations, equipment totaling 5% of the unit's maintenance point total will break down, regardless of the number of mechanics available.

24.23 Repairs: Repair of broken-down equipment takes one week and requires the same number of maintenance points as maintaining it. Mechanics employed repairing broken down equipment, however, are not available for routine maintenance, so may increase the unit's maintenance deficit.

Any vehicle damaged in combat (one or more hits suffered) may be repaired in one day. Any vehicle disabled in combat (all of its hits suffered) may be repaired in one week. Vehicles destroyed in combat may not be repaired.

24.3 Cooks

Cooks provide hot, nutritional and (hopefully) palatable meals to troops in the field.

24.31 Required Personnel: One four-man fireteam stand of cooks and one field kitchen is required for every 50 stands in a unit (with each single-figure noncook stand counting as a quarter of a stand).

24.32 Effects: Troops who do not receive a hot meal for three consecutive days have their morale reduced by 1 until they do receive a hot meal. Troops in cold or inclement weather have their morale reduced by 1 each day that they do not receive a hot meal. Note that in cold and inclement weather this can quickly destroy the morale of the unit. One hot meal, however, will restore the unit's morale.

24.4 Veterinarians

Veterinarians look after the health of the animals in a unit. This is particularly important in lower-tech units.

24.41 Required Personnel: One veterinarian is required for every 10 stands of animals (either cavalry or horse-drawn vehicles) in the unit, with single-figure stands (such as mounted commanders or scouts) counting as a quarter stand. In periods of intense heat, cold or inclement weather, one veterinarian is required for every five stands of animals.

Veterinarians may be grouped into larger four-man fireteams for larger units.

24.42 Effects: If insufficient veterinarians are present in the unit, the unit will lose 1% of its animals (but at least one stand worth) per week until the number of animals is reduced to the correct veterinarian-to-animal ratio. In periods of intense heat, cold or inclement weather, the attrition rate increases to 5% per week until the correct ratio is restored.

24.5 Force Composition

The figures given earlier on force composition apply to combatants in the force structure. If support personnel are added to the force, all are considered Novices (for combat purposes) and do not affect the ratios laid out previously for combatant troops.
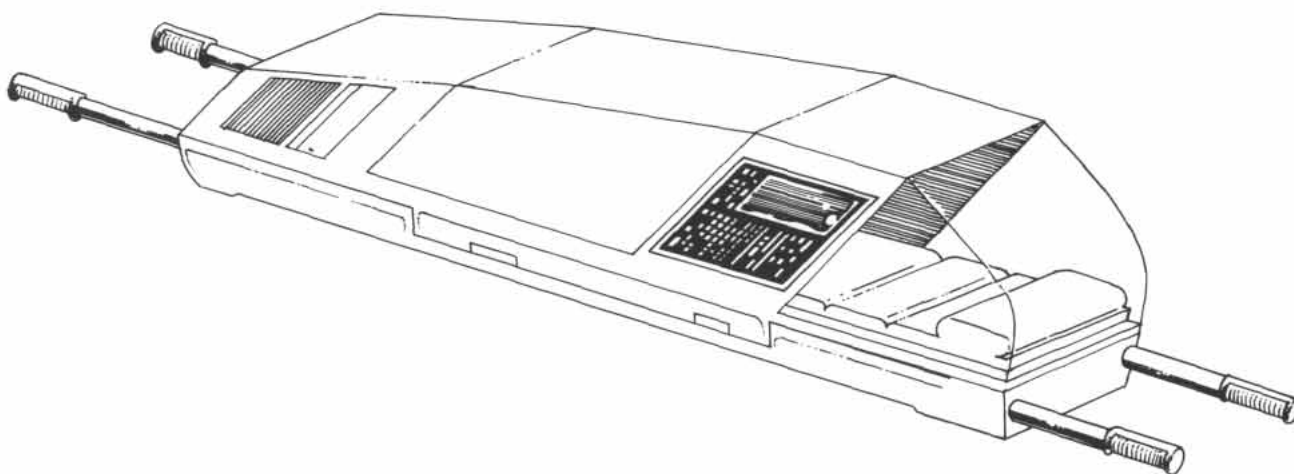
RULE 25: CAMPAIGN MOVES

When fighting out an extended campaign, it is useful to have a set of simple but comprehensive rules for resolving strategic movement, scouting, supply, etc. This rule is intended to serve that function.

25.1 Scale

Each campaign turn represents eight hours of time. Movement and combat are plotted on maps using a 20km hex grid scale.

Campaign units may range from companies, or even smaller detachments, up to divisions, with battalions being the most common force in most campaigns.

25.2 Turns

In each eight-hour turn, players give orders to friendly units and, in most cases, the friendly units act on those orders.

Movement is simultaneous by both sides and adjudicated by the referee. Following movement, the referee resolves all detection and sets up battle games, if any battles are to be fought out.

Note that since movement is simultaneous and combat can occur when opposing units enter the same hex, it will sometimes be necessary to pro-rate movement by all units and move them hex by hex to determine if opposing units are in the same hex at the same time.

25.3 Detection

Players should not be told the location of enemy ground combat units unless they are detected by a friendly unit in communication with other friendly units (and ultimately the players).

Detection of aircraft by electronic sensors or detection from orbit is resolved using the normal detection rules in the game.

A special procedure is used for detection of ground units by hostile ground units, however.

Detection takes place when two opposing units enter the same hex.

Units moving by road or in high mode are automatically detected. Other units may be detected if a successful task roll is made.

Detection is resolved immediately, as detection of an enemy unit may stop movement and initiate combat. Detection is a standard task roll using the asset level of the average NPC quality of troops in the unit (Elite=15, Veteran=13, Experienced=11, Novice=9, as noted on **The New Era** page 59). Detection is a Difficult task, and the difficulty level is modified as shown on the following table. The terrain occupied by the unit affects the difficulty of detection. The difficulty levels are noted on the Terrain Effects chart on the following page. For other modifying conditions, +numbers are increases in the difficulty level, while –numbers are decreases.

Detection Modifiers

Condition	Modifier
Heavy detecting unit	+2
Medium detecting unit	+1
Target less than a battalion	+1
Light target unit	+1
Night or inclement weather	+1
Detecting unit deployed	–1
Target a division or more	–1
Heavy target unit	–1
Every two tech levels detector is above target	–1
Terrain	See Terrain Effects chart

25.4 Mobility

Units' movement is expressed in hexes moved per eight-hour turn. The mobility of the unit is determined by the travel movement of the slowest vehicle in use in the unit. Divide the **Traveller** travel movement rate (in kilometers) by 25 to determine the mass combat system movement in hexes per turn.

The following table lists common movement allowances for low-tech units and may be used as a general guide to movement rates of hostile forces. The first number is the number of hexes moved per turn on a road or, in the case of helicopters and lift units, in high mode. The second number is the number of hexes moved cross country or, in the case of helicopters and lift units, in NOE mode.

Movement Allowances

Type	Movement
Infantry	2/1
Cavalry	3/2
TL5 motorized	5/2
TL6+ motorized	15/5
Mechanized/armored	10/5
ACV	20/15

25.41 Terrain: Some terrain is more difficult to move through than others and so slows movement. The Terrain Effects Chart on the following page lists most common terrain types encountered and their movement costs. Terrain types with a dash are moved through normally, while those with a number following the multiplication sign cost additional movement. These movement costs vary with the type of unit actually moving through the hex. Hill terrain, for example, has no special cost for track-mobile, ACV-mobile and lift-mobile units. Leg-mobile and wheel-mobile units, however, count the hex as two hexes for movement.

Units which do not have sufficient movement left to enter a hex may not do so, but may expend their remaining movement toward the entry cost of the hex for the next turn. (It would otherwise be impossible for infantry to enter any difficult terrain.)

Units may move along roads at the road movement rate, regardless of the type of terrain in the hex. The presence of
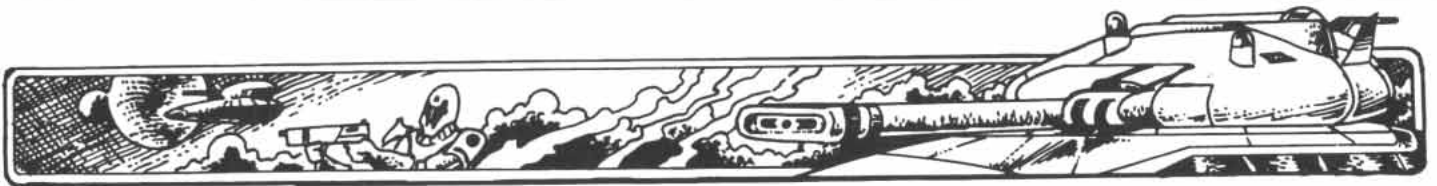
a "P" on the chart indicates prohibited terrain; units with that mobility type may not enter the hex (except on a road).

25.42 Supply and Fatigue: A unit's ability to move is constrained by supply and fatigue. Supply limits a unit's movement usually due to fuel limits.

Vehicles which have limited fuel must spend a turn refueling after they have expended their normal load. Troops may rest while refueling.

Fatigue limits all units, and while the specific effects of fatigue are covered later, it is normal for a unit to rest for one turn per 24-hour day. See Rule 26.1 for details.

25.43 Deploying: A unit which does not move during a turn is considered to be deployed in the hex it occupies and should be so noted. A deployed unit has advantages in combat and detection. A unit may rest at the same time that it is deployed.

Terrain Effects

Terrain	Movement Detect	Leg	Wheel	Track	ACV	Lift
Clear	—	—	—	—	—	—
Prairie	–1	—	—	—	—	—
Rough	—	×2	×2	—	—	—
Mountain	+1	×2	P	×4	P	—
Marsh	—	—	×4	×4	—	—
Swamp	+1	×2	P	P	—	—
Forest	+1	×2	×4	×2	×4	—
Jungle	+2	×2	P	×4	P	—
Desert	–2	×2	×2	—	—	—
Broken	+1	×2	×4	×2	×4	—
Glacier	–2	×2	×4	×2	—	—

RULE 26: SUPPLY & FATIGUE

Although supply and fatigue are critical to sustained combat, it is very easy to become completely absorbed by logistics to the exclusion of other game considerations. As a result, only the simplest of logistical rules are presented here.

26.1 Fatigue

Units which fight a battle are fatigued until they spend a turn resting. In addition, units not in combat which do not rest for one turn per day are fatigued. Each condition which causes fatigue (i.e., each battle fought and each day spent without rest) increases the fatigue level of the unit by 1. Each turn spent resting reduces the fatigue level of the unit by 1.

Units which are fatigued have their morale reduced. For every fatigue level, lower the unit's morale by 2.

No unit may be reduced below a morale level of 4. Any unit with a fatigue level of 10 or more automatically surrenders to any enemy unit it encounters.

26.2 Types of Supply

There are three types of supply considered in the game: rations, fuel and munitions.

26.21 Rations: Each unit requires rations once per day, and the rations are used when the unit is resting. If the unit does not receive its rations for the day, it has its fatigue level increased by 1. Units which are already fatigued and which are resting for more than one turn are denied the beneficial effect of one

turn of rest per day if they receive no rations. There are no additional effects from lack of rations.

26.22 Fuel: Fuel is required each time a vehicle uses up its on-board fuel. Units fuel all their vehicles at once and usually do so while resting. Fuel supply must be available while the unit is resting in order for the vehicles to refuel.

26.23 Munitions: Whenever a unit fights, it uses munitions and must receive more to fight at full effectiveness. Munitions are received at the beginning of a turn; the receiving unit does not have to rest to receive munitions.

26.231 Small Arms: Once a unit fights, cut the rate of fire of all small arms weapons in the unit in half (rounding fractions up) until it receives munitions.

26.232 Vehicles: Each vehicle has a specified number of shots carried on-board. These are used up in combat and are not replenished until a unit receives munitions.

26.233 Other Heavy Weapons: Other heavy weapons, such as rocket launchers, towed artillery, missile launchers, etc., which do not have a specified number of rounds carried may or may not have ammunition remaining after a battle. Roll a die once for each weapon that fired. There is a 60% chance (roll 12 or less on 1D20) that it will have ammunition remaining.

26.3 Tracing Supply

Units are in supply if they can trace a supply line back to a friendly supply base. The supply line should be shorter than one turn's movement of the movement rate of the supply vehicles available to the unit. If it is longer than one turn's movement, units which require supplies may or may not receive them, based on the following table. The number under the die roll column is the roll (or less) needed on 1D20 for a unit to receive supplies.

Supply

Distance	Die Roll
2 turns	16
3 turns	12
4 turns	8
5 turns	4

Each unit rolls separately to determine whether or not it received supplies.

26.4 Supply Bases

Players may establish supply bases wherever they like in friendly territory. Any city hex is also considered to be a supply base. If a move into enemy territory is required, it will probably be necessary to establish additional forward supply bases to sustain the move.

In order to create a new supply base, the player must tell the referee where the base is to be and then spend three turns "stocking" it. Once supplies have been available to the hex for three consecutive turns, the base is operational.

If a supply base ever goes for six consecutive turns without receiving supplies, it is no longer an active supply base.
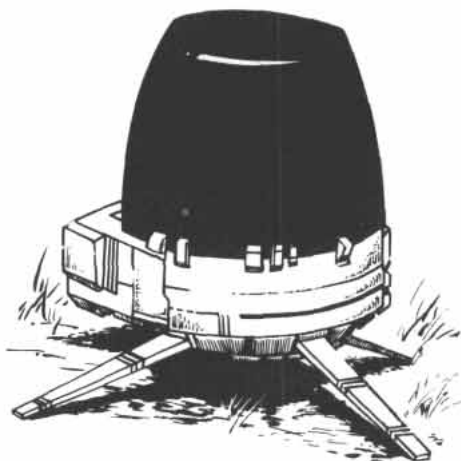
RULE 27: INTEGRATION WITH TRAVELLER

This rule allows integration for player characters and detailed NPCs from **Traveller** into a **Striker** miniatures game. For details on converting equipment from **Traveller** (or **Fire, Fusion & Steel**) to **Striker** terms, see Appendix A.

Each PC and detailed NPC is represented by a single-figure stand. All these rules are based on the use of the asset of a player character or detailed NPC.

Ground Tactics: If the Ground Tactics asset of the character in charge is higher than unit's asset based on NPC quality, use the Ground Tactics asset for all campaign detection rolls.

Leadership: The Leadership asset is used to avoid adverse moral effects. Whenever a unit suffers a failed morale roll or a forced-back result from fire, a PC or detailed NPC leader can make a roll against his Leadership asset. Success indicates that the morale effect is disregarded; failure indicates that the morale condition takes effect normally; and catastrophic failure indicates that the morale condition becomes one level worse (i.e., Pin becomes Forced Back, Forced Back becomes Rout, Rout becomes Surrender, and Surrender remains Surrender). Difficulty level is based on the morale level that has been reached: Pinned is Easy, Forced Back is Average, Rout is Formidable, and Surrender is Impossible.

Instruction: An instructor works directly with a platoon of soldiers (up to 10 fireteam stands or their equivalents), training them in tactics and basic military skills. An instructor may attempt to raise the troop quality of a platoon by rolling a formidable instruction task. Six consecutive success results mean that the platoon being trained has risen one experience level. The entire training program lasts one month, and all six rolls are made at the end of the month.

Admin/Legal: For each level of skill (not asset), treat the unit as being one hex closer to its supply base for purposes of determining supply.

Mapping: Leaders with mapping skills may roll a Formidable task vs. Mapping each turn to find the best path through terrain for the campaign turn. Outstanding success multiplies the unit's movement allowance by 1.5 (round to the nearest whole number), success adds 1 to the movement rate for the turn, failure has no effect, and Catastrophic Failure subtracts 1 from the turn's movement rate (the unit got lost). Note that leg infantry units get no greater benefit for outstanding success than they do for basic success.

This works only for ground units, and not for lift (contragrav) units.
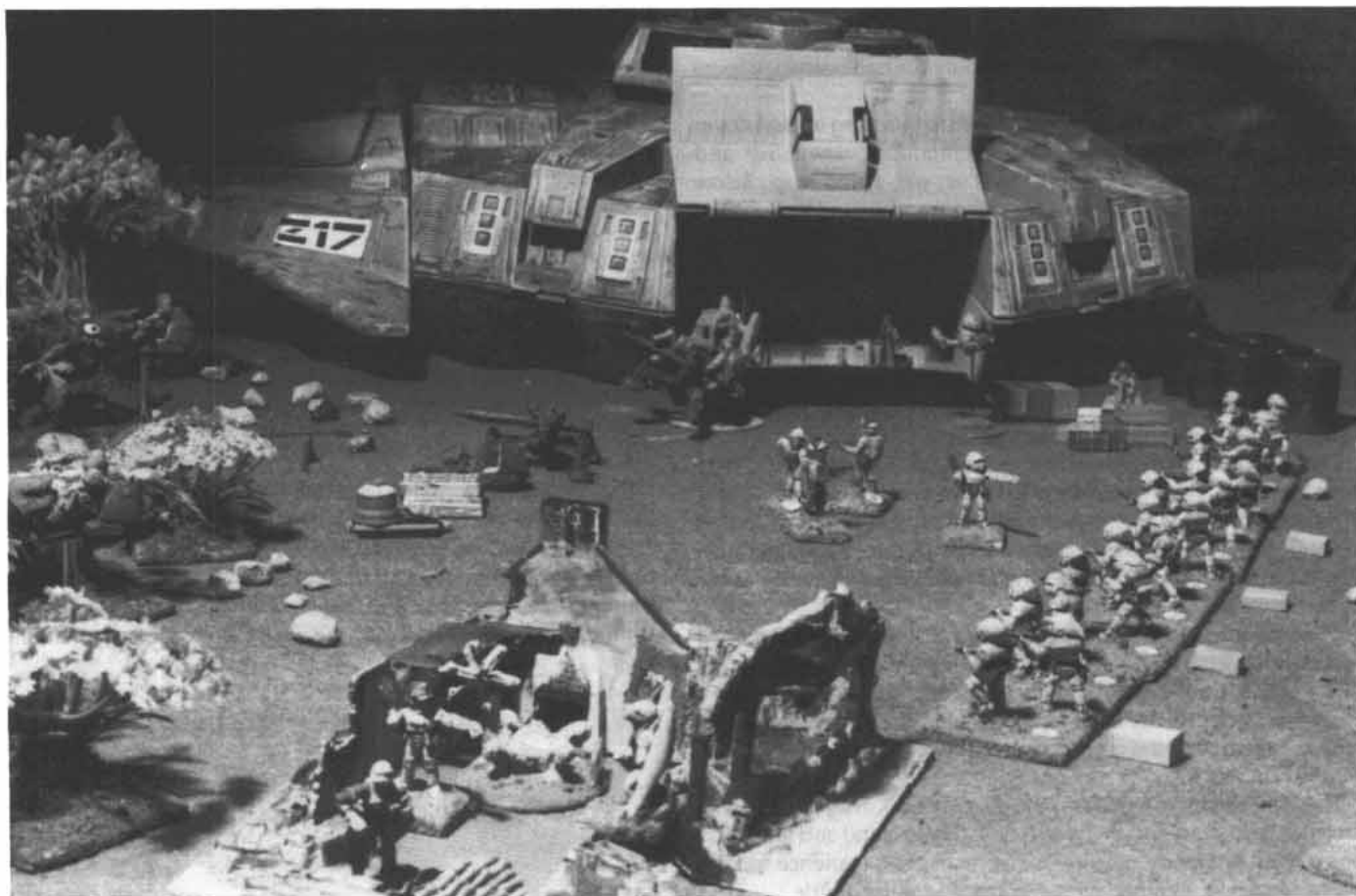
Freedom's Call

Günther had always been very big. When he was taken into the *kommando*, the first words the *kommisar* said were, *"Ach! Ein starker gonef!"* And so they'd assigned him to carry the big 2 cm *Leicht Sturm Geschutz*.

Not that he minded. Everything about the squad LSG bespoke power, from the heavily greased telescoping shoulder stock to the massive muzzle break. For Günther, power meant freedom.

The *Volk* of the Kessel Valley had fought against invaders from the plains and the off-shore islands for over a generation, and had always kept their villages and farmsteads secure. Then, scarcely a year ago, the *Aus-Welten* had come, and everything had changed. They came in starships and floating cars, and they swept away the village *kommandoes* like annoying flies.

They seized every important settlement in little more than a week. They brought in "governors" from the hated islanders and made the *Volk* swear allegiance to a planetary government that was nothing more than a puppet of their *Aus-Welt* empire.

Then they tried to make the *Volk* abandon the old ways. Men's beards were shaved off. New flags were distributed, and the *Volk* were made to hang them from their roof eaves. Worst of all, they outlawed the *Altsprech* and made the school children learn their hated *Anglik*.

And so, one by one, the *kommandoes* slipped away and reformed in the hills. Young men who had never served before slipped away as well, to join them. Günther was one of those young men. Weeks of training followed, weeks whose only purpose had been to prepare him for this day.

Günther leaned the LSG carefully against a fallen log and sat down to rest, while behind him the *kommandant*, *kommisar* and *schlachtführer* conferred heatedly over an old, faded map. Below him, the valley of the small tributary of the Kessel wound through the rugged hills, a soft green streak through the browns and grays. And at the widest spot in the valley was the village of Brüchenburg, their objective.

The advanced group had already secured the village and reported back by radio to the *schlachtführer*. Collaborators were being dealt with even as the argument went on behind Günther. The popping noise of single pistol shots drifting up from the village sounded strangely harmless from this distance.

The *Aus-Welten* would hear the radio signal from the valley; they were meant to. They would send troops to rescue their lackeys and drive the *kommando* back into the hills. They were meant to do that as well. While the advanced party dealt with the village, the main body of the *kommando* manned the ambush site a kilometer to the north where the valley narrowed.

This was the biggest raid so far. Three of the smaller bands had joined with Günther's *kommando* to make an ambush this large. Many of the *Aus-Welten* would die under the guns of the ambush. Then the ambush party would fall back, and the *Aus-Welten* would pursue, drawn onto the guns of the second ambush party—the one Günther was with.

The *kommissar* had explained the plan in detail. They were to take their first easy shots and then retreat, not try to stand and fight. The object was to bloody the *Aus-Welten* and get experience for the *neusoldaten*, like Günther—not win the war in one battle.

Günther knew all that. But he also knew that today he would kill an *Aus-Welt* soldier, and tonight he would spend the bounty *Fleischgelt* for thick black-barley beer for his squad, and by tomorrow

he would be an *altsoldat*.

Günther worked the LSG into a crook between a broken branch and the main part of the tree trunk. He laid the three extra magazines on the trunk in front of him, made sure he had a clear field of fire to the small draw to the north, and waited.

Background

The planet Solee in the Old Expanses was unified in 1196 under the rule of Christen Overtak, since crowned Empress Solee. A major breakthrough in detecting and combatting Virus at about the same time enabled Solee to renovate a wide array of pre-collapse Imperial equipment, including numerous starships. Using these resources, Solee embarked upon a vigorous program of imperialist expansion, invading the two neighboring worlds of Marcena and Hindahl. But neither campaign has gone as smoothly as expected, and the fighting on Marcena has become particularly costly.

The strategy on both worlds was to pick a local warlord and back him with troops and high-tech weaponry, thus gaining a base on the planet as well as valuable local guides and intelligence sources. On Marcena, however, the stubborn farmers of the Kessel valley have proven to be particularly effective guerrilla fighters. The fighting started, as it usually does, with attacks on the local population, not the regular Soleean troops. Occasional robberies and assassinations of local officials soon grew into attacks on police posts, and eventually on small military patrols. In early 1201, the *Blut und Eisen Kommando* of the west valley launched the largest coordinated raid and ambush of the war to date.

DEPLOYMENT

The Defender deploys the advance team in the village and may deploy the rest of the kommando anywhere desired, but not within 20 cm of any table edge.

The Attacker enters the board on turn 1 from the north edge mounted in vehicles.

SPECIAL SCENARIO RULES

The *Kommando* may withdraw from any table edge except the northern edge. Individual stands may not withdraw on their own initiative, but must instead be issued a *Disengage* order by either of the two command stands in the *Kommando* headquarters.

VICTORY

The *Kommando* wins if at least half the kommando force escapes and if it inflicts more casualties (hits) on the Soleeans than it suffers. However, it must inflict at least 10 hits on the Soleeans, and at least 10 different *Kommando* stands must fire at a visible Soleean stand during the scenario for the objective of the raid to be achieved.

If the Soleean player denies the *Kommando* its victory conditions, it wins.

POWER
DATA DISPLAY

ZOOM 10X | ZOOM VAR.
ATMOS. | TEMP.
AXIAL TILT | RANGE
RAD. | SCAN

SCAN SCAN

Marsena

Terrain Data:
Stream fordable by personnel only

Habitation Data:
Bridgeton (Brüchenberg)

III

N
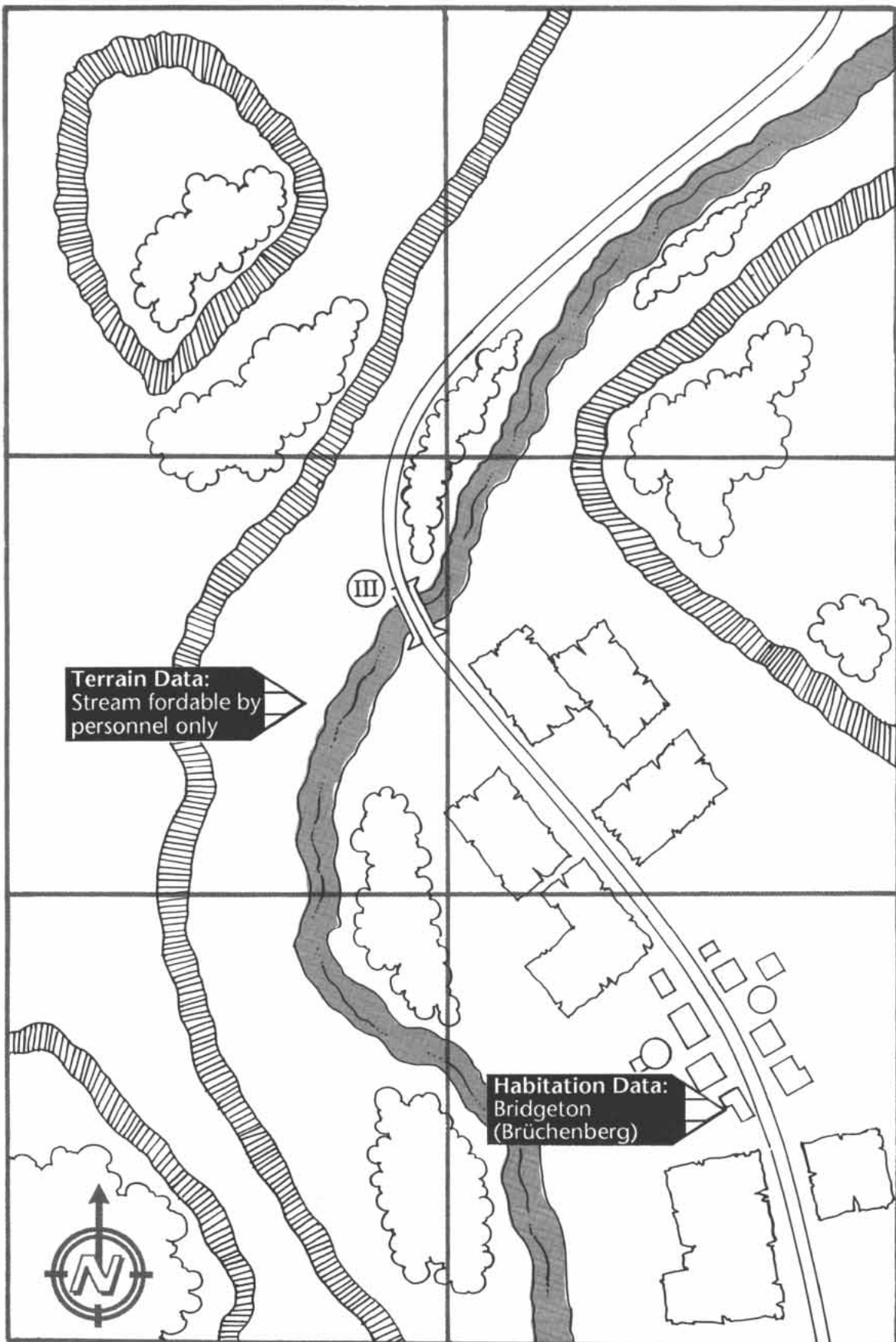
ONE KILOMETER

ATTACKER

Briefing and Orders

From: Headquarters, 5th District, Military Assistance Command, Marsena.

To: Commander, 4th Company, 17th Imperial Soleean Infantry.

1. Situation: Low-level terrorist activity has been increasing in the Kettle River Valley region. The district has responded by massing company-sized rapid response forces in key positions ready to aggressively seek out terrorist bands whenever they launch a raid. Radio intercepts indicate that the village of Bridgeton (*Brüchenburg* in the local dialect) has been raided by terrorists who may still be in the area. Your company is the closest available rapid response force.

2. Objective: Your company will move to Bridgeton, secure the village, determine the fate of the local police and officials, then engage and destroy the terrorist forces still in the area.

3. Enemy Forces: Radio traffic indicates an enemy force in the village and a smaller command-control element still in the surrounding hills. To avoid detection, terrorist units have not been operating in forces larger than a platoon. While larger forces are considered unlikely, force security remains a high priority.

4. Friendly Forces: No additional reinforcing assets are available for our company. There is a squad-sized element of local police in the village, but they have not reported the attack by phone and so may have defected or been neutralized by the terrorists.

5. Concept of Operation: Lack of combat vehicles will require a motor approach by road. The first priority should be the rapid recapture of the village.

Organization of Forces

4th Company, 17th Imperial Soleean Infantry (Experienced, Morale: 18 except where noted), with:
> **Headquarters (Veteran),** with:
>> 1 operational command stand
>> 1 tactical command/infantry stand
>> 1 self-commanding infantry stand
> **3 Rifle Platoons,** each with:
>> 1 tactical command/infantry stand
>> 5 infantry stands
>> 1 machinegun stand
> **Attached Transport Group (Novice),** with:
>> several requisitioned civilian trucks

Headquarters, with:
> 1 operational command stand
> 1 tactical command/infantry stand
> 1 self-commanding infantry stand

Notes: All stands are equipped with TL10 7mm advanced combat rifles, hand grenades and RAM HEAP grenades. Each soldier wears a helmet and combat environment suit (save number 1).

Troop Quality: <u>Veteran</u> Morale: <u>18</u> Initiative: <u>4</u>
Armor: <u>Combat Environment Suit</u> Save: <u>1</u>
Movement: <u>20</u> cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
HE/frag hand grenades-8+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
RAM HE rifle grenades-9	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	EP: 3, BR: 2 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

3 Rifle Platoons, with:
  1 tactical command/infantry stand
  5 infantry stands
  1 machinegun stand

Notes: Each infantry and command infantry stand is equipped with TL10 7mm advanced combat rifles, hand grenades and RAM HEAP grenades. Each machinegun stand is equipped with a TL8 7mm rotary gun. Each soldier wears a helmet and combat environment suit (save number 1).

Troop Quality: Experienced **Morale:** 18 **Initiative:** 3
Armor: Combat Environment Suit   **Save:** 1
Movement: 20 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
7mm rotary gun-8	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	Tripod -mounted
HE/frag hand grenades-8/9	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
RAM HE rifle grenades-9	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	EP: 3, BR: 2 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

Attached Transport Group, with:
  Several requisitioned civilian trucks

Notes: The unit has enough requisitioned civilian trucks to mount the unit. A sample truck is listed, but any truck values from TL7 may be used. Each truck has a single-figure crew stand which may dismount (but the vehicle may not move while the driver is dismounted). Each crewmember is armed with a 7mm ACR. They do not wear any body armor.

Medium Truck (TL6)

Troop Quality: Novice **Morale:** 18 **Initiative:** 1
Movement: 110 road (—, +1, +2), 50 cross-country (—, —, +1)
  Front Armor: 1
  Side Armor: 1
  Rear Armor: 1
  Deck Armor: Open
  Belly Armor: 1

Cargo Capacity: 3 or 5 tonnes
Environmental: Unsealed, air breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 10
Mass Class: IV
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

System:	Short	Medium	Long	Extreme	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	

Notes: Each command stand, command infantry stand and infantry stand is equipped with TL10 7mm ACRs, hand grenades and RAM HEAP grenades. Each machinegun stand is equipped with a TL8 7mm rotary gun. Each soldier wears a helmet and combat environment suit (save number 1). The command stand is an operational commander. The command/infantry stands are all tactical commanders. The unit has enough requisitioned civilian trucks to mount the unit. A sample truck is listed, but any truck values from TL7 may be used.

DEFENDER
Briefing and Orders

From: *Kommandant, Blut und Eisen Kommando.*

To: All element leaders.

1. Situation: We have gradually been building up our cache of weapons and raising recruits. Recently, we established contact with two independent groups and persuaded them to join our *kommando* on this raid. The time has come to strike a crushing blow against the *Aus-Welten* and their collaborators. We have identified the village of Brüchenburg as the bait for an ambush. Our advanced party has already secured the village and transmitted the fact on open channel. The enemy will respond with a rescue force which we will ambush.

2. Objective: Our objective is to inflict maximum casualties on the enemy while preserving our force as the cadre for the growing resistance movement. If possible, our novice troops should experience some combat, although they are very inexperienced, and it is important not to break them in this first battle.

3. Enemy Forces: We expect that the enemy will deploy as much as a company to relieve the village. They are better equipped than our *kommando,* and most of the men are better trained. The closest enemy response force is stationed a few kilometers to the north. There are no troop concentrations to the south for over 100 kilometers.

Enemy air raft troops have a substantial mobility advantage over our own infantry, but there have been no reports of air rafts deployed in the valley (except as liaison craft) for over a month.

4. Friendly Forces: All friendly local forces have been incorporated in the ranks of the *kommando* for this operation.

5. Concept of Operation: While the advanced party secures the village, the other elements of the force will conceal themselves in the woods and broken ground as ambush parties.

Force Organization
Blut Und Eisen Kommando, with:
  Headquarters (Veteran, Morale: 20), with:
   1 operational command stand
   1 staff radio stand
   1 self-ordering infantry stand
  Advance Party (Novice, Morale: 16), with:
   1 tactical command infantry stand
   1 self-ordering infantry stand
   4 infantry stands
  First Element (Experienced, Morale: 18), with:
   1 tactical command infantry stand
   6 infantry stands
   2 machinegun stands
  Second Element (Novice, Morale: 16), with:
   1 tactical command infantry stand
   4 infantry stands
   1 machinegun stand
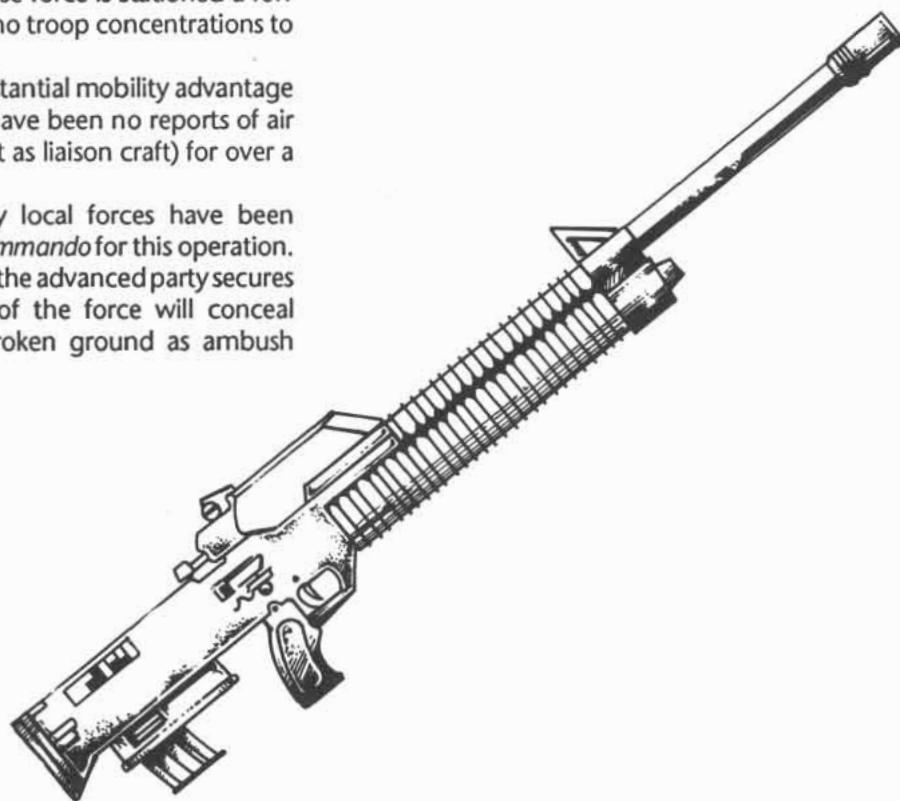
Headquarters, *Blut Und Eisen Kommando,* with:
- 1 operational command stand
- 1 staff radio stand
- 1 self-ordering infantry stand

Notes: Each stand is equipped with TL7 7mm assault rifles. The soldiers are unarmored.

Troop Quality: Veteran **Morale:** 20 **Initiative:** 4
Armor: None
Movement: 20 cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
7mm assault rifle-7	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
2cm LAG (DS)	25 cm: 3 (6)	50 cm: 2 (6)	100 cm: 1 (2)	200 cm: 1 (1)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

Advance Party (Novice, Morale: 16), with:
- 1 tactical command infantry stand
- 1 self-ordering infantry stand
- 4 infantry stands

Notes: Each stand is equipped with TL7 7mm assault rifles. Each command infantry and self-ordering infantry (but not plain infantry) stand also has an integral 2cm LAG. The soldiers are unarmored.

Troop Quality: Novice **Morale:** 16 **Initiative:** 1
Armor: Combat environment suit **Save:** 1
Movement: 20 cm

System:	Short (9)	Medium (4)	Long (2)	Extreme (1)	Notes
7mm assault rifle-7	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm LMG-6	10 cm: 5 (2)	20 cm: 4 (2)	40 cm: 3 (Nil)	80 cm: 2 (Nil)	
2cm LAG (DS)	25 cm: 3 (6)	50 cm: 2 (6)	100 cm: 1 (2)	200 cm: 1 (1)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	(3 km)	(6 km)	(12 km)	(24 km)	
3km radio	300cm	600cm	1200cm	2400cm	

First Element (Experienced, Morale: 18), with:
- 1 tactical command infantry stand
- 6 infantry stands
- 2 machinegun stands

Notes: Each infantry and command infantry stand is equipped with TL7 7mm assault rifles. Each command infantry stand also has an integral 2cm LAG. Each machine-gun stand is equipped with a TL7 7mm light machinegun. The soldiers are unarmored.

Troop Quality: Experienced **Morale:** 18 **Initiative:** 3
Armor: Combat environment suit **Save:** 1
Movement: 20 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm assault rifle-7	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm LMG-6	10 cm: 5 (2)	20 cm: 4 (2)	40 cm: 3 (Nil)	80 cm: 2 (Nil)	
2cm LAG (DS)	25 cm: 3 (6)	50 cm: 2 (6)	100 cm: 1 (2)	200 cm: 1 (1)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

Second Element (Novice, Morale: 16), with:
- 1 tactical command infantry stand
- 4 infantry stands
- 1 machinegun stand

Notes: Each infantry and command infantry stand is equipped with TL7 7mm assault rifles. Each command infantry stand also has an integral 2cm LAG. Each machine-gun stand is equipped with a TL7 7mm light machinegun. The soldiers are unarmored.

Troop Quality: Novice **Morale:** 16 **Initiative:** 1
Armor: Combat environment suit **Save:** 1
Movement: 20 cm

System:	Short (9)	Medium (4)	Long (2)	Extreme (1)	Notes
7mm assault rifle-7	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm LMG-6	10 cm: 5 (2)	20 cm: 4 (2)	40 cm: 3 (Nil)	80 cm: 2 (Nil)	
2cm LAG (DS)	25 cm: 3 (6)	50 cm: 2 (6)	100 cm: 1 (2)	200 cm: 1 (1)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

Say Good Night

Late 1199 (Imperial calendar)
Vezina (Old Expanses)

Sergeant Borgia took a last look around the airless drop bay. All eight of her people were out on the drop pylons strapping themselves into the reentry kits. Navy types had gone EVA to deploy the ablative foam reentry shields while the jump troops had gotten their final briefing, so there wouldn't be the normal wait while the foam hardened. That was a good idea.

There was talk of a new purpose-built drop capsule coming soon, complete with jammers and decoys and the ability to maneuver enough to maybe throw off a dirt gunner's aim. That sounded good to Borgia, but this jump would still be with the old sport versions. Getting down in one piece was going to rely on Cdr. Ritter keeping the bad guys talking until it was too late. That, and some luck. Then it was up to the grunts.

Borgia pulled herself along the steel cable to the makeshift drop pylon and slipped into the human-sized cavity in the dull black hemisphere of the drop kit. The few idiot lights that the small craft had showed green.

"Lucky, this is Drop Six. Your people all strapped in?"

"That's a roger, Skipper," she answered. "Nine ready to drop."

"Bongo, Can Can, your folks set?"

"Bongo to Drop Six. Nine to drop, Skipper."

"Can Can ready. Nine to drop."

"Okay, we'll salvo drop in 30 from my mark.... Mark."

When they hit the ionosphere in reentry and communications blacked out, Borgia was left alone with her thoughts. How many, she wondered, would come back on line once they broke out into the lower atmosphere? How many then would make it to the ground? The Vezinans had to know they were coming, had to be waiting for them...had to be. Ritter was a great BS artist, but nobody was that good. Nobody could be that stupid. Could they?

They broke through to the lower atmosphere, and Borgia's radio crackled to life. The capsules were tuned to receive on the open channel used for the negotiations, and suddenly Ritter's voice, frustrated and impatient, filled her helmet.

"...Yes, I know, your highness. Er, right. I mean, your divineness. What? Your divine holiness? I.... Right, I.... Right, look.... I.... *Look, Hoss, I don't care who died and made you immortal, but I'm only going to explain this one more time!*"

Borgia grinned as her drogue chute pulled the main chute free and the broad gray canopy spread above her. Minutes later she hit the harness quick release and came out of the still-rocking framework on her feet and in the shuffling trot that was as good an approximation of a run as anyone could manage in battledress. The drop had been good; she was only about 300 meters from the built-up settlement proper. She looked around the DZ and saw collapsing gray chutes and running figures all across it. Everyone was down and moving!

Captain Jeffries, the drop commander, suddenly interrupted the diplomatic argument, breaking in on the clear.

"Ritter, this is Drop Six. I've got dust with all 30. Say again, dust with three-zero. Switching to Tacnet."

"You hear that?" Ritter whooped over the radio to the god-emperor. "Say good night, Hoss!"

BACKGROUND

In 1199, the newly formed Dawn League sent out 12 refitted diplomatic ships to establish peaceful contact with worlds in the Wilds, the former territory of the Third Imperium. None of the ships came back. Follow-on missions by hastily outfitted small warships came back with news of massacres. One of the ships, DLS *Lirgishkhunan*, actually had its own landing party captured on the planet Vezina while trying to discover the fate of the crew of the DLS *Aurora*. With a fresh contingent of jump troops and the battle-seasoned DLS *Ashtabula* in consort, *Lirgishkhunan* returned, looking for trouble.

In this scenario, the Attacker (the Dawn League player) conducts a meteoric assault from orbit, while the defender (the Hastaan player) attempts to defend the capital city of the small country.

DEPLOYMENT

The Hastaan player may set up anywhere in the settlement. All tanks must be parked together in one place. The Blood-Death Tercio, the Emperor and the prisoners (a half-dozen or more unarmed and unarmored single-figure stands) must be placed in the palace.

SPECIAL SCENARIO RULES

Jamming: Orbital jammers in the Dawn League ships are sufficiently powerful that the entire board is in their short range for radio, radar and EMS jamming.

Surprise: Despite ample warning, Hastaan was surprised by the speed and audacity of the assault from orbit. To duplicate this level of surprise, no personnel or vehicle stand may move or fire the first turn. Tanks may not move or fire until they have powered up. Each tank rolls once per turn during the movement phase to see if it is powered up. The roll is treated as an extreme-range task the first turn, a long-range task the second, a medium-range task the third, and a short-range task every following turn.

Drop: The drop may be made anywhere except in the built-up area. Any stand which lands in the built-up area takes a hit and automatically has a P2 marker placed on it, regardless of whether its drop marker is face up or down. The two drop units must form separate sticks. Each unit may be, but need not be, divided further into more sticks.

Prisoners: The prisoners may not be moved from the palace and may not be executed. Once they are in Dawn League control, they may be fired at. Evacuation can be accomplished by arriving at any drop zone not in the field of fire of a Hastaan homing missile.

VICTORY

The Dawn League player wins if over half the prisoners are recaptured and evacuated. The Dawn League wins an overwhelming victory if, in addition to recapturing the prisoners, the emperor is killed, and the jump troops end the scenario in control of the settlement.

POWER
DATA DISPLAY

ZOOM 10X	ZOOM VAR.
ATMOS.	TEMP.
AXIAL TILT	RANGE
RAD.	SCAN

1 2 3 4 5 6 7 8 9 0 V

SCAN ▼ SCAN

Vezina

Palace

N
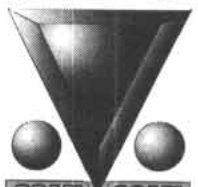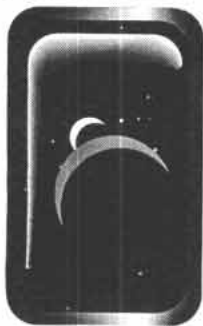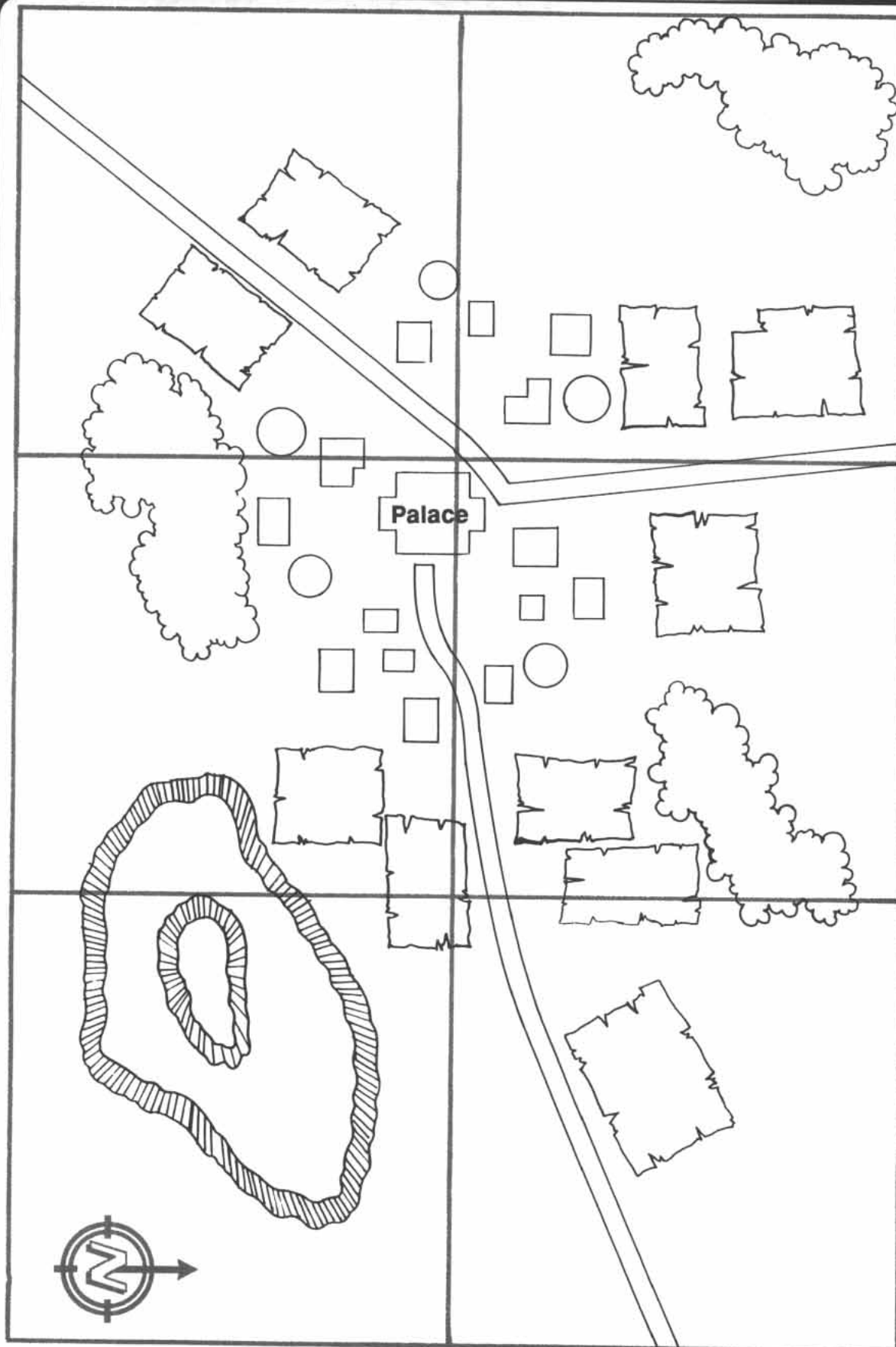
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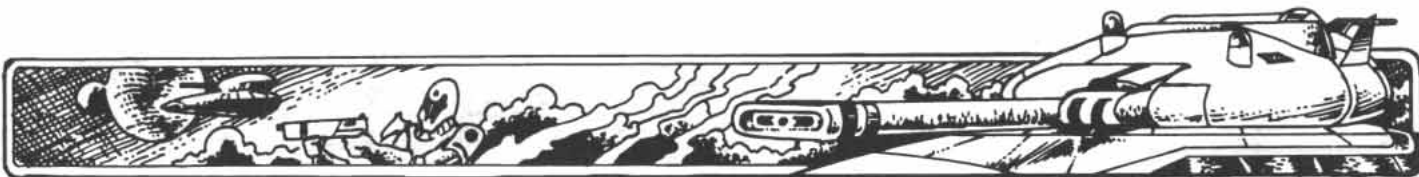
ATTACKER

Briefing and Orders

From: Lt. Cdr. Ritter, pennant aboard DLS *Ashtabula*.

To: All personnel, Task Force Strike Vezina.

1. Situation: On or about 1-VII-1199 DLS, *Aurora* grounded on the planet Vezina, at which time the ship and her crew were seized by a local warlord, the self-styled "God-Emperor of Hastaan." A follow-on landing by DLS *Lirgishkhunan* ended in shots fired and the rescue party being captured by locals. We now have definite proof that *Aurora's* crewmembers have been executed. While *Lirgishkhunan's* troops are believed still alive, the situation is extremely unstable.

2. Objectives: Recover our surviving people.

3. Enemy Forces: Hastaan is a small technologically elevated dictatorship. The troops are nominally well-equipped, but their combat skills are not necessarily as good. Total military personnel is believed to be about 1000, of which about half are actual ground combatants. The local army is called the "Sacred Guard."

4. Friendly Forces: We are currently in orbit with *Ashtabula* and *Lirgishkhunan*. *Lirgishkhunan* has a new complement of jump troops. Both vessels are available for laser bombardment from orbit, but the potential combat zone is largely filled with civilian settlements, making orbital bombardment impractical.

5. Concept of Operation: The task force commander will continue negotiations with Hastaan from orbit while the drop troops prepare for meteoric assault. The assault sticks will land as close to the settlement as possible and then fight their way quickly in, secure the prisoners held in the palace, then fight their way back out again, relying on shock and surprise to overcome resistance. The task force in orbit will engage in selective jamming of enemy communications to confuse their command network. Extraction will be by assault lander.

Organization of Forces

Dawn League Task Force Strike Vezina, with:

  Task Force Command, with:

    1 operational commander (in orbit)

    1 staff uplink (in orbit)

  Jump Detachment *"Ashtabula"* (Elite, Morale: 22), with:

    Command Group, with:

      1 operational command stand

      1 tactical command stand

      1 self-ordering recon stand (single-figure)

    3 Squads, each with:

      1 tactical command stand

      2 infantry stands

  Jump Detachment *"Lirgishkhunan"* (Veteran, Morale: 18), with:

    Command Group, with:

      1 operational command stand

      1 self-ordering recon stand (single-figure)

    2 Squads, each with:

      1 tactical command stand

      2 infantry stands

Jump Detachment *"Ashtabula"* **(Elite, Morale: 22),** with:

Command Group, with:
- 1 operational command stand
- 1 tactical command stand
- 1 self-ordering recon stand (single-figure)

3 Squads, each with:
- 1 tactical command stand
- 2 infantry stands

Notes: All stands are equipped with TL10 7mm advanced combat rifles, hand grenades and RAM HEAP grenades. Each infantry and recon stand has an integral plasma bazooka. Each soldier wears light battledress (save number 6).

Troop Quality: Elite **Morale:** 22 **Initiative:** 4
Armor: Light battledress **Save:** 6
Movement: 16 cm

System:	Short (15)	Medium (7)	Long (3)	Extreme (1)	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
HE/frag hand grenades-8+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
RAM HE rifle grenades-9	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	EP: 3, BR: 2 cm
10cm plasma bazooka-10	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

Jump Detachment *"Lirgishkhunan"* **(Veteran, Morale: 18),** with:

Command Group, with:
- 1 operational command stand
- 1 self-ordering recon stand (single-figure)

2 Squads, each with:
- 1 tactical command stand
- 2 infantry stands

Notes: All stands are equipped with TL10 7mm advanced combat rifles, hand grenades and RAM HEAP grenades. Each infantry and recon stand has an integral plasma bazooka. Each soldier wears light battledress (save number 6).

Troop Quality: Veteran **Morale:** 18 **Initiative:** 3
Armor: Light battledress **Save:** 6
Movement: 16 cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
HE/frag hand grenades-8+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
RAM HE rifle grenades-9	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	EP: 3, BR: 2 cm
10cm plasma bazooka-10	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

DEFENDER

Briefing and Orders

From: Supreme Headquarters, Imperial Horde.

To: All Sacred Guard Commanders.

1. Situation: Twice the off-worlders have landed minions to subvert and corrupt our subjects, and twice they have been dealt with. Now another alien force hovers above us, begging for the release of their criminal spies and saboteurs.

2. Objective: Defend the person of the god-emperor at all costs.

3. Enemy Forces: Unknown.

4. Friendly Forces: Although many militia units have not yet mustered from their hamlets, the best units of the Sacred Guard are concentrated at the capital, and additional militia groupments are on their way.

5. Concept of Operation: The enemy is cowardly and unlikely to attack as long as we hold prisoners. Nevertheless, we must be ready for any treachery.
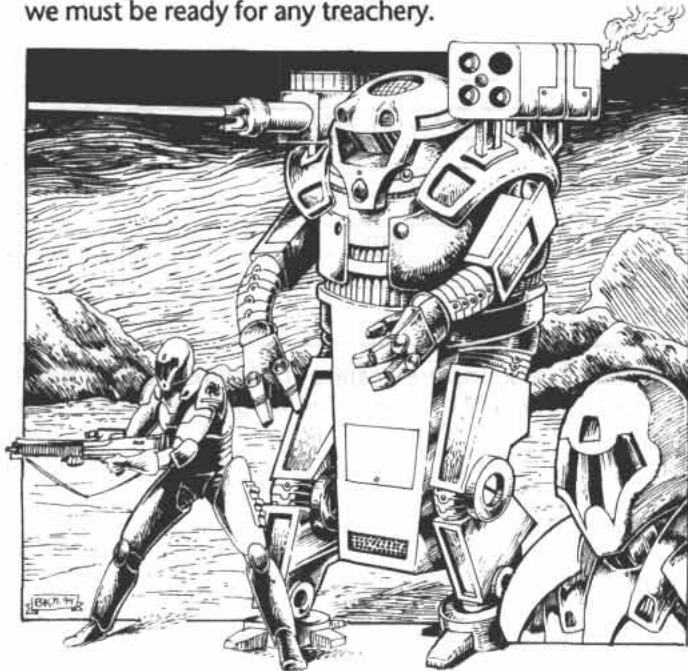
Organization Of Forces

Hastaan Imperial Troops: The Sacred Guard

Supreme Headquarters (Novice, Morale: 14), with:
- 1 operational command stand (the emperor)
- 1 staff radio stand

The Blood-Life Tercio, with:
- **Headquarters,** with:
  - 1 tactical command stand
  - 1 self-ordering infantry stand
  - 1 crew stand
  - 1 VRF gauss gun
- **2 Detachments,** each with:
  - 1 tactical command infantry stand
  - 4 infantry stands

The Tercio of Steel, with:
- **Headquarters,** with:
  - 1 tactical command stand
- **Tank Detachment,** with:
  - 1 tactical command TL8 fast tank
  - 3 TL8 fast tanks
- **2 Mobile Detachments,** each with:
  - 1 tactical command infantry stand
  - 2 infantry stands
  - 1 machinegun stand
  - 1 heavy truck

The Tercio of Fire, with:
- **Headquarters,** with:
  - 1 tactical command stand
- **Missile Detachment,** with:
  - 1 tactical command stand
  - 2 crew stands
  - 2 TL7 TAC missile launchers
- **Mortar Detachment,** with:
  - 1 tactical command stand
  - 1 self-ordering observer stand (single figure)
  - 3 crew stands
  - 3 8cm mortars
- **Air Defense Detachment,** with:
  - 1 tactical command stand
  - 3 crew stands
  - 3 TL7 ADA homing missiles

Militia Groupments, with:

(There are six militia groupments, but most of them are deployed some distance from the capital. Only one or two militia groupments are in the capital when the raid hits. One or two more may be added to the scenario as reinforcements, if desired.)

- **Headquarters,** with:
  - 1 tactical command stand
  - 1 self-ordering infantry stand
  - 1 machinegun stand
- **2 Sections,** each with:
  - 1 tactical command infantry stand
  - 3 infantry stands

The Blood-Life Tercio (Experienced, Morale: 16), with:
    Headquarters, with:
        1 tactical command stand
        1 self-ordering infantry stand
        1 crew stand
        1 VRF gauss gun
    2 Detachments, each with:
        1 tactical command infantry stand
        4 infantry stands

Notes: All troops in the Blood-Life Tercio wear TL10 battledress. All command, command infantry, self-ordering infantry and plain infantry are equipped with TL10 7mm ACRs firing discarding sabot (DS) ammunition. Each command infantry stand has an integral, TL10 assault rocket launcher (ARL). The crew stand is equipped with TL5 7mm carbines.

Troop Quality: Experienced Morale: 16 Initiative: 2
Armor: Battle dress Save: 6
Movement: 16 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm carbine-5	5 cm: 3 (2)	10 cm: 2 (2)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
6cm ARL (HE)	20 cm: 2 (2+)	40 cm: 1 (2+)	—	—	P: 6 BR: 4
6cm ARL (HEAP)	20 cm: 2 (65+)	40 cm: 1 (65+)	—	—	EP: 5 BR: 3
6cm ARL (flechette)	20 cm: 2* (Nil)	40 cm: 1* (Nil)	—	—	DS: 1 cmx5 cm
4mm VRF gauss gun (dart)	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

Supreme Headquarters (Novice, Morale: 14), with:
    1 operational command stand (the emperor)
    1 staff radio stand

Notes: All personnel are wearing TL10 combat armor and are equipped with TL10 7mm ACRs firing ball ammunition.

Troop Quality: Novice Morale: 14 Initiative: 1
Armor: Combat armor Save: 2
Movement: 20 cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
7mm ACR-10 (ball)	10 cm: 4 (3)	20 cm: 3 (3)	40 cm: 2 (2)	80 cm: 1 (Nil)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30km radio	(30 km)	(60 km)	(120 km)	(240 km)	
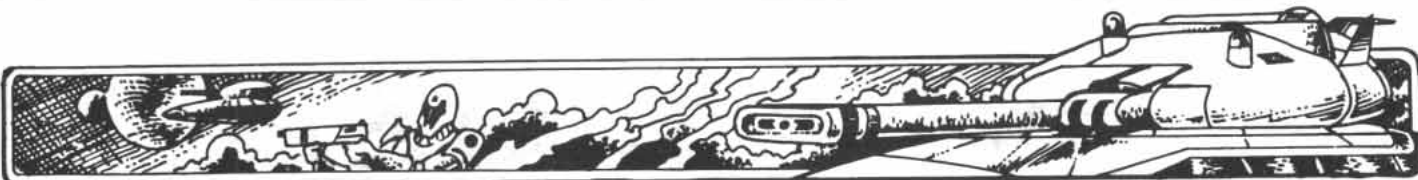
The Tercio of Steel (Novice, Morale 14), with:
    Headquarters, with:
        1 tactical command stand
    2 Mobile Detachments, each with:
        1 tactical command infantry stand
        2 infantry stands
        1 machinegun stand
        1 heavy truck

Notes: Each command, command infantry, and infantry stands is equipped with 7mm assault rifles and HE/frag hand grenades. Each machinegun stand has a 7mm tripod MG. Each command infantry stand has an integral 14.5mm antiarmor rifle (firing ball ammunition). All troops wear ballistic weave body armor and helmets.

Troop Quality: Novice **Morale:** 14 **Initiative:** 1
Armor: Ballistic Weave Body Armor **Save:** 1
Movement: 20 cm

System:	Short (9)	Medium (4)	Long (2)	Extreme (1)	Notes
7mm assault rifle-7	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm MG	14 cm: 5 (2)	28 cm: 4 (2)	56 cm: 3 (Nil)	112 cm: 2 (Nil)	
HE/Frag Hand Grenades-8+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
14.5mm AAR (ball)	29 cm: 3 (6)	58 cm: 2 (6)	116 cm: 1 (6)	232 cm: 1 (4)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

The Tercio of Steel (Novice, Morale: 14), with:
    Tank Detachment

1 tactical command TL8 Prairie Fire fast tank
3 TL8 Prairie Fire fast tanks

Prairie Fire Fast Tank (TL8)

Cargo Capacity: —
Environmental: Overpressure, Air breathing
Electronic Warfare: Decoys (5)
Ammunition: 25 shots of 130mm (any combination of above), unlimited shots for both MGs
Maintenance Points: 62
Mass Class: VI
Explosive Damage Modifier: −7
Fire Control: Ignores 2 Diff Mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Troop Quality: Novice **Morale:** 14 **Initiative:** 1
Movement: 130 road (+1, +2, +2), 100 cross-country (—, +1, +2)
    Front Armor: 192
    Side Armor: 48
    Rear Armor: 24
    Deck Armor: 36
    Belly Armor: 24

System:	Short (9)	Medium (4)	Long (2)	Extreme (1)	Notes
130mm L60 Gun-APFSDSDU	67 cm: 1 (207+)	134 cm: 1 (197+)	268 cm: 1 (187+)	536 cm: 1 (167+)	F, S
130mm L60 Gun-HEAP	51 cm: 1 (123+)	102 cm: 1 (123+)	204 cm: 1 (123+)	408 cm: 1 (123+)	F, S, EP: 9, BR: 3 cm
130mm L60 Gun-HE	51 cm: 1 (13+)	102 cm: 1 (13+)	204 cm: 1 (13+)	408 cm: 1 (13+)	F, S, EP: 11, BR: 4 cm
130mm L60 Gun-Flechette	51 cm: 1 (2)	102 cm: 1 (2)	204 cm: 1 (2)	408 cm: 1 (2)	F, S, DS: 3×10 cm
7mm Rotary MG-Ball	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	F, S
5mm Rotary MG-Ball	15 cm: 7 (3)	30 cm: 6 (3)	60 cm: 5 (Nil)	120 cm: 4 (Nil)	F, S
Sensors:					
3km HRT	300 cm	600 cm	1200 cm	2400 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Militia Groupment (Novice, Morale: 12), with:
(There are six militia groupments, but most of them are deployed some distance from the capital. Only one or two militia groupments are in the capital when the raid hits. One or two more may be added to the scenario as reinforcements, if desired.)
Headquarters, with:
1 tactical command stand
1 self-ordering infantry stand
1 machinegun stand
2 sections, each with:
1 tactical command infantry stand
3 infantry stands

Notes: Each command, command infantry, self-ordering infantry and plain infantry stand is equipped with 7mm assault rifles. The machinegun stand has a 7mm tripod MG.

Troop Quality: Novice **Morale:** 12 **Initiative:** 1
Armor: None
Movement: 20 cm

System:	Short (9)	Medium (4)	Long (2)	Extreme (1)	Notes
7mm assault rifle-7	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm MG	14 cm: 5 (2)	28 cm: 4 (2)	56 cm: 3 (Nil)	112 cm: 2 (Nil)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

The Tercio of Fire (Novice, Morale: 14), with:
Headquarters, with:
1 tactical command stand
Missile Detachment, with:
1 tactical command stand
2 crew stands
2 TL7 TAC missile launchers
Mortar Detachment, with:
1 tactical command stand
1 self-ordering observer stand (single figure)
3 crew stands
3 8cm mortars
Air Defense Detachment, with:
1 tactical command stand
3 crew stands
3 TL7 ADA homing missiles

Notes: All command, observer and crew stands are equipped with 7mm carbines. Each missile launcher has only three shots worth of ammunition.

Troop Quality: Veteran **Morale:** 14 **Initiative:** 4
Armor: Combat environment suit **Save:** 1
Movement: 20 cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
7mm carbine-5	5 cm: 3 (2)	10 cm: 2 (2)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
HE/frag hand grenades-8+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
RAM HE rifle grenades-9	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	EP: 3, BR: 2 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300cm	600cm	1200cm	2400cm	

Strength on Strength

1110 (Imperial calendar)
Efate (Spinward Marches)

It had been very quick and very violent. When it was over, there was some smoke in the command bunker, but no movement, not anymore, and it was suddenly eerily quiet. Even the tacnet chatter died away in the sudden peace.

In front of him, a "Joe" officer's lifeless form sprawled across a workstation. At first it looked like she had been trying to shield the electronics with her body, but when he rolled her over, he saw the primed grenade still clutched in a death grip. She slid to the floor as if in slow motion, her hand relaxing, and the grenade's safety lever flipped up and away, doing lazy cartwheels through the air.

"Grenade!" he yelled, and started to smother it with his own body armor, but as he went down to his knees, his eyes came level with the workstation, and he saw the still-glowing data monitor, covered with the cramped, geometric characters of the Zhodani alphabet.

The grenade wasn't for us, he thought suddenly. *She was trying to kill the machine!*

Instead of falling on the grenade, he picked it up and threw it out the open hatchway.

"Heads up! Grenade comin' out the CP hatch!" he yelled over the tacnet, and heard angry curses in answer. There was an explosion, and more curses, but no cries of pain or calls for medics.

He looked back at the machine. Its screen still glowed a happy orange and blue, line after line of data displayed for anyone with the wisdom to decipher it.

"Hey, El-Tee," he said finally. "You better come over here and look at this."

BACKGROUND

The Fifth Frontier War was the last major conflict fought between the Third Imperium and the Zhodani Consulate.

During the year-long siege of Efate, both sides committed ground troops. Eventually, Imperial forces gained the upper hand, in part due to a major intelligence coup gained on a raid conducted by the crack 4518th Lift Infantry.

In this scenario, the Imperial player will defend a captured Zhodani headquarters compound against a determined Zhodani attack.

DEPLOYMENT

The Zhodani commando company will enter the board by psionic teleportation. First, the Zhodani player decides where each stand will appear. Stands may appear inside buildings. The Zhodani player will know the location of the computer, but not the location of Imperial troops. (Although the unit clairvoyant has that capability, the troops move around, and he can only scan one area at a time. He will not be able to tell where the Imperial troops are at the time of the jump, since at that time he will be occupied telepathically locking destination images into the minds of troops.)

Once the Zhodani player has secretly recorded the arrival points of his troops, the Imperial player sets up. Troops may be played anywhere in or within 40 cm of the compound. Any hidden stands are kept off the table.

The game begins when the Zhodani commandoes appear. On the same turn, the Zhodani lift infantry company may enter any board edge.

SPECIAL SCENARIO RULES

Although a relief force is on its way, it will not arrive soon enough to intervene in this fight. The scenario is essentially a fight to the death between the Imperial company and the two Zhodani companies.

VICTORY

The Zhodani player wins if the computer is destroyed and all three computer intelligence officers are killed and/or captured. Failing this, the Imperial player wins.
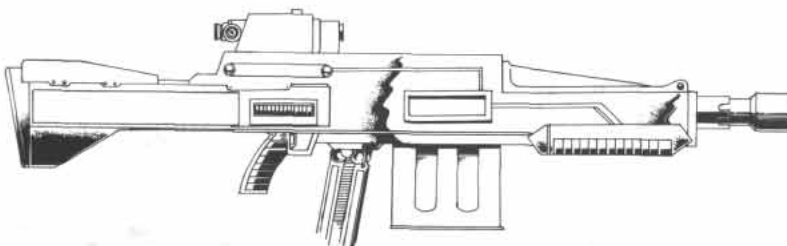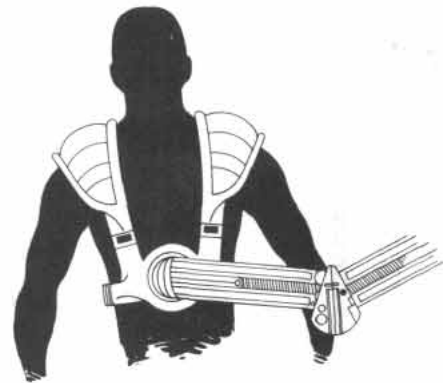
POWER
DATA DISPLAY

ZOOM 10X
ZOOM VAR.
ATMOS.
TEMP.
AXIAL TILT
RANGE
RAD.
SCAN

SCAN SCAN

Efate

cp

Terrain Data:
Stream not
fordable

ONE KILOMETER
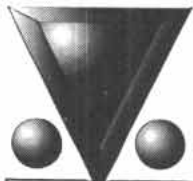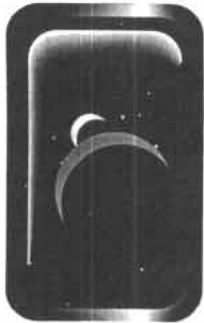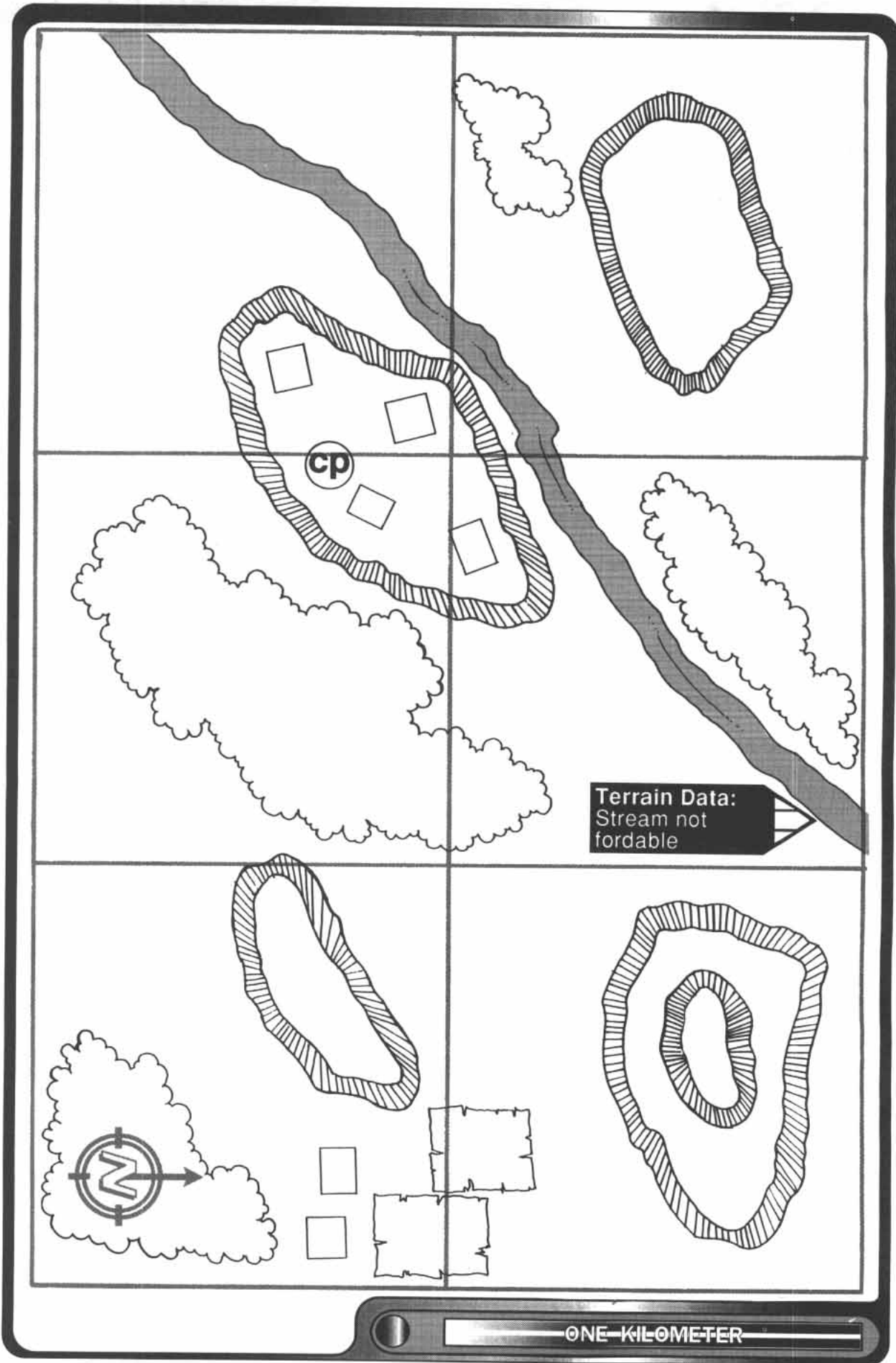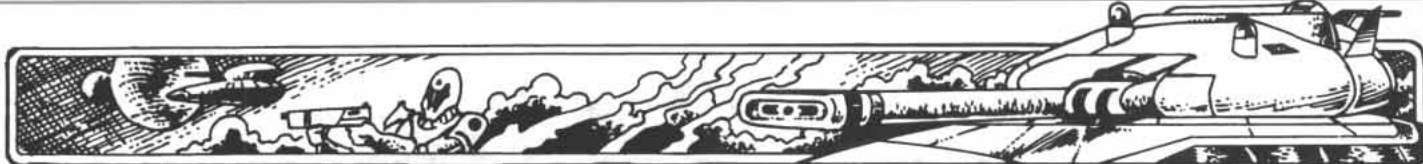
ATTACKER

Briefing and Orders

From: Headquarters, 14th Area Army.

To: 114th Commando Groupment, Consular Guard.

1. Situation: A recent raid by the enemy overran the rear headquarters of the CXII Corps and captured an intact operations computer. Indications are that the headquarters staff did not have time to destroy the encrypted data base, the decoding of which will seriously compromise our operations here on Efate. The tamperproofs of the computer will prevent it from being moved until the encryption has been dealt with, which will require the enemy to hold the site and bring its computer experts there.

2. Objective: Destroy the captured operations computer and its data base. Eliminate any Imperial computer personnel who may have partially decoded the data base.

3. Enemy Forces: The enemy is believed to hold the compound with a company of jump troops, perhaps now reinforced. As the site is well behind our front lines, no heavy units have been deployed there yet, although a major drive is in progress to break through to the compound.

4. Friendly Forces: The only uncommitted unit close enough to intervene immediately is the reserve squadron of your groupment and an understrength lift infantry company.

5. Concept of Operation: While an attached army lift rifle company launches a diversionary assault from outside the compound, the commando company will psionically teleport into the camp compound, relying on surprise to overcome enemy resistance. They will destroy the computer and use telepathic probes to determine the extent of the enemy's knowledge of the operations data base. They will neutralize any personnel with knowledge of the information contained in the data base. They will then exfiltrate back to a rendezvous point to be determined in cooperation with the lift infantry commander.

Organization Of Forces

Commando Squadron, with:
> 1 command teleport stand
> **3 Commando Detachments,** each with:
>> 1 command teleport stand
>> **4 Commando Groups,** each with:
>>> 1 command teleport stand
>>> 1 teleport support infantry stand
>>> 2 teleport infantry stands

Light Infantry Company, with:
> **Headquarters and Weapons Platoon,** with:
>> 1 operational command stand
>> 1 Light Utility Sleds
>> 1 staff radio LMR Sled
> **3 Light Rifle Platoons,** each with:
>> **Headquarters,** with:
>>> 1 tactical command stand
>>> 1 crew stand
>>> 1 TL14 Tac missile launcher
>>> 1 Light Utility Sled
>> **3 Rifle Squads,** each with:
>>> 1 tactical command stand
>>> 1 support infantry stand
>>> 2 infantry stands
>>> 1 Light Utility Sled
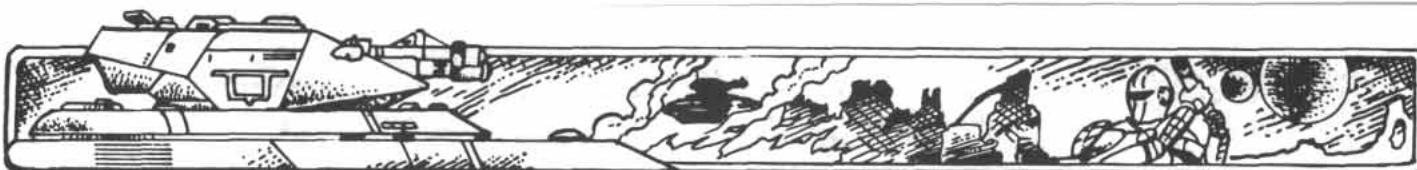
Commando Squadron (Experienced, Morale: 20), with:

- 1 command teleport stand
- **3 Commando Detachments,** each with:
  - 1 command teleport stand
  - **4 Commando Groups,** each with:
    - 1 command teleport stand
    - 1 teleport support infantry stand
    - 2 teleport infantry stands

Notes: All stands wear TL14 battledress and are armed with TL13 4.7cm noncompensated plasma rifles. Each support infantry stand is armed with TL14 4.7cm noncompensated fusion rifles. Note that Zhodani commando selection is based exclusively on their psionic ability, which accounts for the lower level of combat skills than found in most commando units.

Troop Quality: Experienced **Morale:** 20 **Initiative:** 2
Armor: Battledress **Save:** 8
Movement: 18 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
4.7 cm plasma rifle-13	9 cm: 2 (27+)	18 cm: 1 (27+)	36 cm: 1 (14+)	72 cm: 1 (3+)	
4.7 cm fusion rifle-14	16 cm: 2 (33+)	32 cm: 1 (33+)	64 cm: 1 (17+)	128 cm: 1 (3+)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300 cm	600 cm	1200 cm	2400 cm	
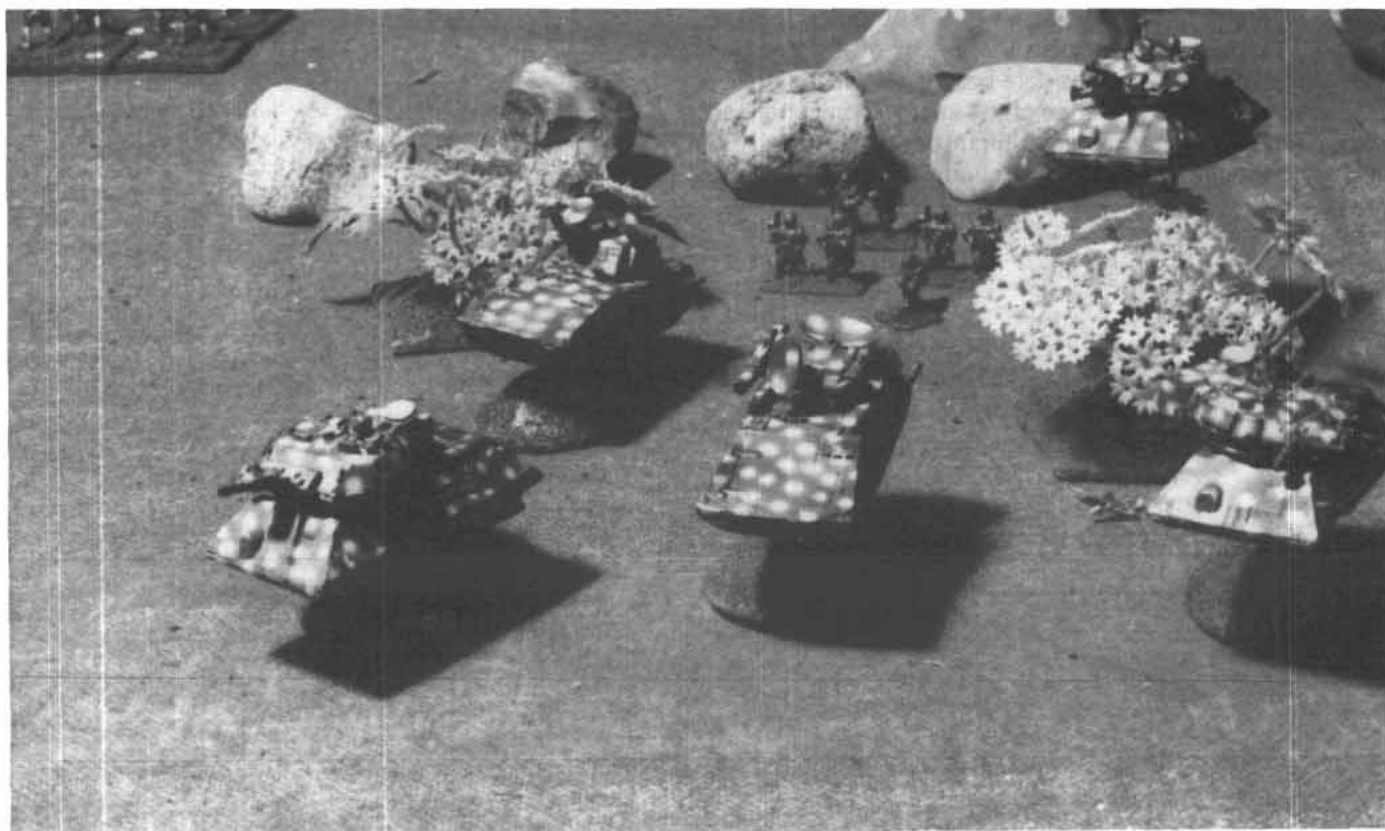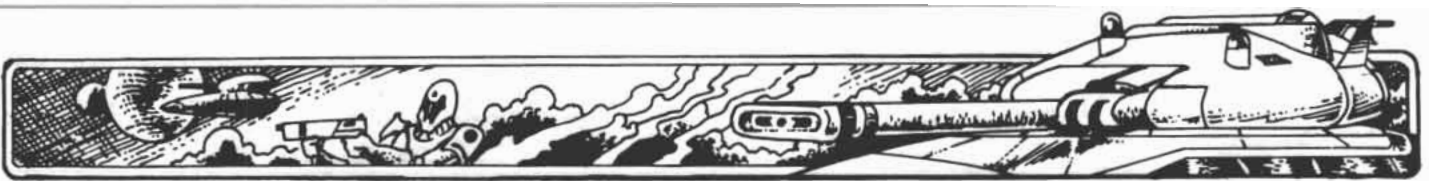
Light Infantry Company (Veteran, Morale: 14), with:
    Headquarters and Weapons Platoon, with:
        1 operational command stand
        1 Light Utility Sled
        1 staff radio LMR Sled
    3 Light Rifle Platoons, each with:
        Headquarters, with:
            1 tactical command stand
            1 crew stand
            1 TL14 Tac Missile launcher
            1 Light Utility Sled
        3 Rifle Squads, each with:
            1 tactical command stand
            1 support infantry stand
            2 infantry stands
            1 Light Utility Sled

Notes: All stands wear TL14 combat armor. The command stand and infantry stands are armed with 4mm gauss rifles. The support infantry stands are armed with 4mm gauss SAWs. Both the infantry and support infantry stands have integral TL14 4.7cm compensated fusion rifles. All stands have RAM HEAP grenades.

For the LMR Sled vehicle card, photocopy page 116.

Troop Quality: <u>Veteran</u> **Morale:** <u>14</u> **Initiative:** <u>4</u>
Armor: <u>Combat armor</u> **Save:** <u>4</u>
Movement: <u>20</u> cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
4mm gauss rifle (dart)	10 cm: 4 (4)	20 cm: 3 (4)	40 cm: 2 (2)	80 cm: 1 (Nil)	
4mm gauss SAW (dart)	17 cm: 5 (5)	34 cm: 4 (5)	68 cm: 3 (2)	136 cm: 2 (Nil)	
4.7cm fusion rifle	16 cm: 2 (33+)	32 cm: 1 (33+)	64 cm: 1 (17+)	128 cm: 1 (3+)	
RAM HEAP rifle grenades-9	4 cm: 1 (41+)	8 cm: 1 (41+)	16 cm: 1 (41+)	32 cm: 1 (41+)	EP: 2, BR: 1 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300 cm	600 cm	1200 cm	2400 cm	

Zhodani Light Utility Sled (TL14)
Movement: 500 low (+3, +4), 10,020 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 3 or 7.75 tonnes
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM, decoys (5)
Ammunition: None
Maintenance Points: 7

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
None					
Sensors:					
30km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km maser	300 cm	600 cm	1200 cm	2400 cm	
300km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

DEFENDER

Briefing and Orders

From: Regimental HQ, 4518th Lift Infantry (DROH).

To: Commander, Gamma Company, 6th Battalion.

1. Situation: Early this morning your company conducted a deep penetration raid by meteoric assault from orbit and overran the headquarters of the Zhodani CXII Army Corps. In the course of the mission, an intact operations computer was unexpectedly secured. Your position cannot be substantially reinforced from orbit, although three jump-trained computer intel officers have been sent to the compound to evaluate the information.

Due to renewed Zhodani activity in low orbit, your force cannot be extracted by lander at this time. Instead, an overland attack has been launched to link up with you and evacuate your personnel.

2. Objective: Protect the computer database and the officers evaluating it.

3. Enemy Forces: We believe that the elimination of the corps headquarters has temporarily complicated Zhodani command control in the area, and a large-scale coordinated attack is unlikely in the next several hours. The overland attack is also expected to tie down the heavy Zhodani combat elements in the area. There are light rear-area security elements in the vicinity, and counterattacks can be expected from them. Most of these are believed to be mobile light infantry units.

4. Friendly Forces: Aside from the relief column en route, there are no friendly forces in a position to reinforce your company.

5. Concept of Operation: Hold until relieved.

Organization of Forces

Gamma Company, 6th Battalion, 4518th Lift Infantry Regiment, The Duke of Regina's Own Huscarles, with:

Company Headquarters, with:
  1 operational command stand

3 Jump Troop Platoons, each with:
  1 tactical command stand
  1 support infantry stand

3 Jump Troop Squads, each with:
  1 tactical command stand
  2 infantry stands

The 4518th Lift Infantry (Duke of Regina's Own Huscarles) has a long history, dating back to the Civil War of 604 to 622 when a cadre of Imperial Marines were left on Regina to support the then Baron of Regina, Caranda. After the conclusion of the war, the Marine cadre was converted into the personal bodyguard of the new Duke Caranda.

The Huscarles have fought in the Third, Fourth, and Fifth Frontier Wars, as well as many other military operations, including the Psionic Suppressions. Although originally organized as a four-battalion regiment, the 4518th Lift now consists of six regiments: three lift infantry, two lift cavalry, and one drop troops (see page 141 for further details).

Gamma Company, 6th Battalion, 4518th Lift Infantry Regiment, The Duke of Regina's Own Huscarles, with:
  Company Headquarters, with:
    1 operational command stand
  3 Jump Troop Platoons, each with:
    1 tactical command stand
    1 support infantry stand
    3 Jump Troop Squads, each with:
      1 tactical command stand
      2 infantry stands

Notes: Each stand is outfitted with TL14 light battledress. Command and infantry stands are armed with TL14 4.7cm fusion rifles, the infantry stands additionally having an integral 4cm RAM grenade launcher. The support stands are armed with TL-15 30kg "Fire and Forget" missiles and an integral TL15 5.1cm fusion rifle.

Troop Quality: Elite **Morale:** 20 **Initiative:** 4
Armor: Battledress **Save:** 8
Movement: 18 cm

System:	Short (15)	Medium (7)	Long (3)	Extreme (1)	Notes
4.7cm fusion rifle-14	16 cm: 2 (33+)	32 cm: 1 (33+)	64 cm: 1 (17+)	128 cm: 1 (3+)	
5.1cm fusion rifle-15	18 cm: 2 (37+)	36 cm: 1 (37+)	72 cm: 1 (19+)	144 cm: 1 (4+)	
4cm RAMGL-9 HE	24 cm: 3 (Nil)	48 cm: 2 (Nil)	96 cm: 1 (Nil)	192 cm: 1 (Nil)	EP: 3, BR: 2 cm
30 kg F&F homing HE	(20 km) 1 (5+)	(40 km) 1 (5+)	(54 km) 1 (5+)	—	A10, EP: 8, BR: 5 cm
30 kg F&F homing HEAP	(20 km) 1 (149+)	(25 km) 1 (149+)	—	—	A10, EP: 11, BR: 6 cm
30 kg F&F homing flechette	(20 km) 1* (2)	(40 km) 1* (2)	(54 km) 1• (2)	—	A10, DS: 15×60 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300 cm	600 cm	1200 cm	2400 cm	

Advanced Intel Group, 75th Army (Veteran, Morale 18), with:
  3 self-ordering single-figure stands

Notes: All three stands are wearing TL14 combat armor and are equipped with 4mm gauss rifles.

Troop Quality: Veteran **Morale:** 18 **Initiative:** 4
Armor: Combat armor **Save:** 4
Movement: 20 cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
4mm gauss rifle (dart)	10 cm: 4 (4)	20 cm: 3 (4)	40 cm: 2 (2)	80 cm: 1 (Nil)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3km radio	300 cm	600 cm	1200 cm	2400 cm	

Battle Royal

1202 (Imperial calendar), NE 2 (RC calendar)
The planet Marax in the Old Expanses

The Intel kids were very earnest. They wanted to do a great job. Instead, they were just making everyone jumpy as hell. It seemed like every day they'd upload a new batch of TO&E data on "Additional Units Now Believed to be in the Operational Vicinity of the Target." Finally, this morning Cheater turned to him and said, "*Damn*, Bongo, just how many of those guys *are* there down there?"

That, as Hamlet had once remarked, *was the question*.

When he first found out that the crew of the old DLS *Horus* was still alive and held captive on Marax, he'd pulled every string he could to get on the drop team. He wasn't the only one; there were a lot of familiar faces from the "old days" in the drop companies. But now he was beginning to wonder why he had forgotten never to volunteer.

He'd led a squad on the famous Hastaan raid back in '99. Now he was company top soldier, so all the kids had pumped him and the other "old-timers" about what it was going to be like. He could tell them all about Hastaan, but this was beginning to look like a different bucket of eels altogether. Hastaan had about a platoon's worth of troops who knew which end of their weapons got hot. But this Ushugaam character on Marax looked to have a couple *battalions* that good, and more militia than you could shake a stick at. They were armed to the teeth, too: tanks, battledress, helicopters and some pretty scary-looking planetary defense missiles.

And they didn't look like they were going to fall for the old "negotiate until the troops are safe on the ground" trick, either.

On the other hand, the Coalition had a secret weapon. Commodore "Hammer" Lathrop, the head of the RCES, had come back into military rig to personally plan and direct this assault. With Ritter flying his pennant in RCS *Thunderchild* and running the navy end of things, Bongo knew they could count on 100% support from orbit. And if anyone could crack Ushugaam's defenses, The Hammer could. When Bongo got the call to report to Lathrop's cabin, his spirits rose back to their normal level.

Once he got to the cramped office that passed for the flag day cabin, Bongo and Hammer exchanged gossip and pleasantries for a few minutes, renewing their friendship, while Lathrop's aide listened politely and tried to look inconspicuous. Finally, Lathrop leaned forward, serious.

"Bongo," he said, "you been studying all the tacintel on Ushugaam and his people down there?"

"Yes, sir," Bongo answered.

"Good. I tell you the truth—this looks like a real nightmare to me. Thank God we got you along. Best head for tactics I ever saw," he said as an aside to his aide, who smiled and nodded. "So, what do you think, Bongo? How do we skin this guy?"

BACKGROUND

The planet Marax is ruled by Ushugaam III, an unbalanced, despotic overlord. RCES learned in early 1202 that Ushugaam had captured the crew of one of the original 12 Dawn League emissary ships and had been holding the crew for nearly two years. They were imprisoned in his underground stronghold, the former Imperial planetary defense command complex, located in the Cleft of Bagvoot, a rift valley that drains the arid highlands and links them to the lower tropical jungles along the shores of the Mare Maximus.

In this scenario, the Coalition (Star Viking) player will launch a full-scale assault from orbit, while the Marax player attempts to defend the valley and stronghold.

DEPLOYMENT

The Marax troops can deploy initially anywhere in the valley. The ADA launchers must be at least 50 cm apart from each other. Ushugaam II and the prisoners must begin in the stronghold. The prisoners may not be moved during the scenario, but Ushugaam may move out of the stronghold.

SPECIAL SCENARIO RULES

Assault Landers: The first wave of troops arrive by drop capsule. The following waves arrive by assault landers.

Landers must be called down by the ground commander. They arrive five game turns later (the time it takes them to descend from orbit). Each assault lander may carry one vehicle (including its passengers) or three stands. As many assault landers may land in a turn as desired, provided they have all been called down by the ground commander in advance. Each assault lander must land in clear terrain (although the presence of roads and plowed fields do not inhibit landing) and may not land any closer than 30 cm of another assault lander or three meters (kilometers) of an operational ADA missile launcher. (Note that ADA launchers have no effect on drop capsules.)

Ushugaam: As soon as Ushugaam is killed, all surviving Marax troops suffer a permanent morale reduction of 4. Ushugaam may escape from the table, if desired, by exiting by vehicle to the east or west.

Stronghold: The systematic room-by-room reduction of the stronghold is a fascinating battle, but it is virtually a game in itself. It is highly recommended that the main scenario be played only up to the point that the main gate to the stronghold is breached. The main gate is reinforced concrete, with an armor value of 100, and may be breached either by conventional combat damage or by the engineer assault vehicle, which carries a heavy breaching charge especially designed to blow in the main gate.

If the fight in the stronghold itself is fought, we recommend fighting it as a separate action using a revised scale. Blow up the stronghold to 10 times its size on the table, using art board or some other large stiff paper to draw the complex. Expand ranges by a factor of 10 as well. Keep movement the same, and treat each turn as 30 seconds instead of five minutes.

Orbital Bombardment: The orbital task force has a total of 20 TL11 planetary strike missiles available at the beginning of the scenario. These may be any mix of guidance and warhead types desired, but the mix must be specified by the Reformation Coalition player before play begins. All battledress stands have 3km short-range laser target designators.

Marax is a size 5 world, and so there will be a five-turn delay from when a missile is requested and when it arrives.

VICTORY

The RCES force must capture the Cleft Bagvoot stronghold and rescue the prisoners. Any other result is a victory for Marax.

POWER
DATA DISPLAY

ZOOM 10X
ZOOM VAR.
ATMOS.
TEMP.
AXIAL TILT
RANGE
RAD.
SCAN

SCAN SCAN

Marax

Objective Data:
Stronghold
Entrance

ONE KILOMETER
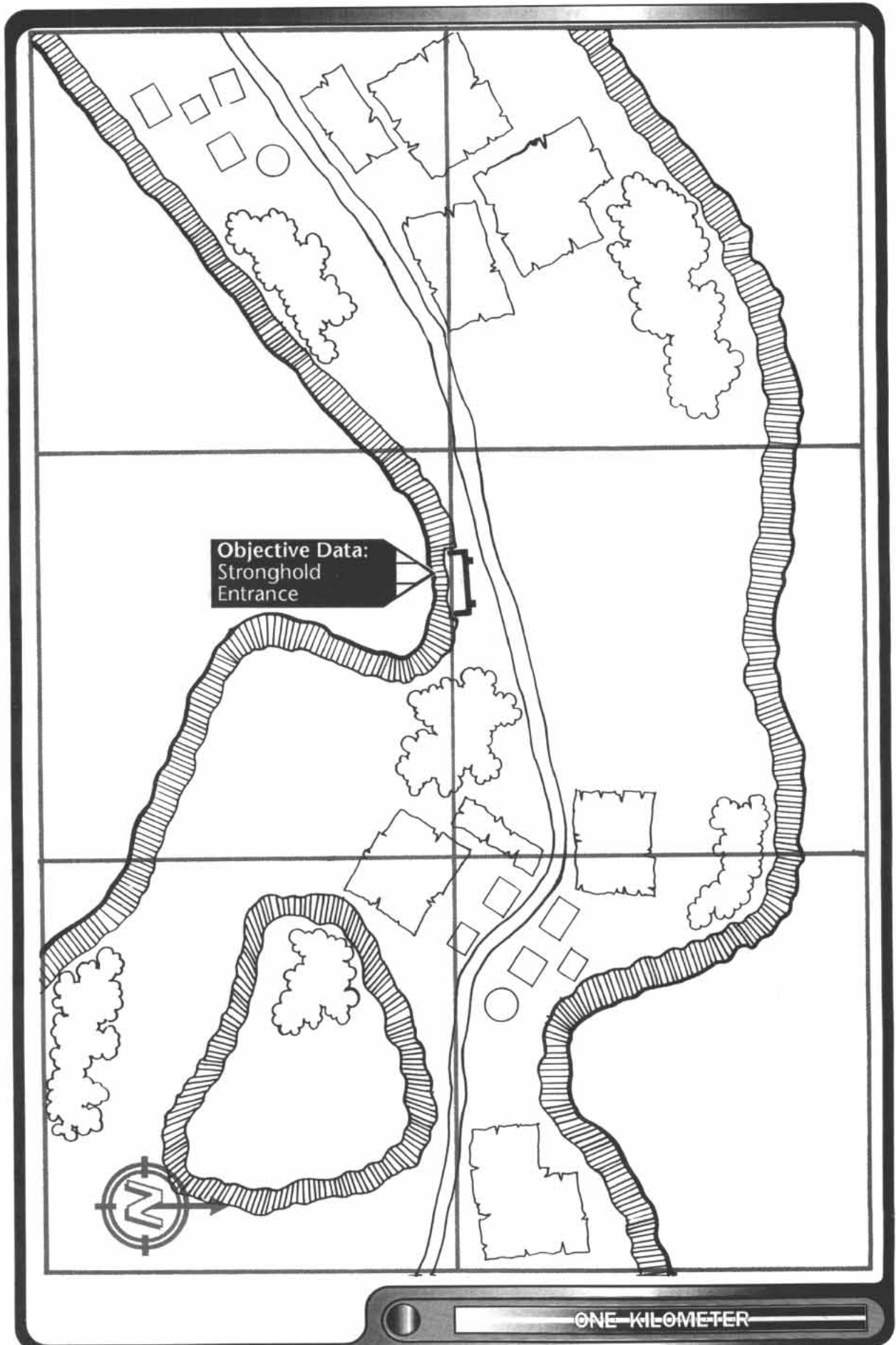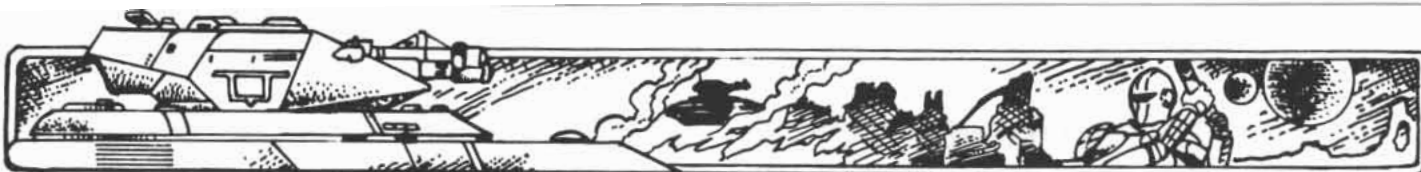
ATTACKER
Briefing and Orders
From: Lathrop, flag aboard RCS *Thunderchild*.
To: All personnel, Task Force Strike Marax.

1. Situation: On or about 1-IX-1199 DLS *Horus* departed from its scheduled flight path. It grounded on Marax approximately one month later and was seized by the local government. Why the captain of *Horus* departed from her flight plan is unknown. Recent intelligence discovered the presence of the ship in Marax's navy and later pinpointed the crew as being held in the stronghold at the Cleft of Bagvoot, a steep-walled rift valley connecting the desert highlands, with the jungles around the Mare Maximus.

2. Objective: Rescue our people.

3. Enemy Forces: Ushugaam has several companies of crack bodyguard troops, as well as elements of a mechanized battalion, air-mobile battalion and militia infantry. In addition, there are four TL10 Planetary Aerospace Defense (PAD) missile launchers in the valley. While our assault drop capsules should be immune to these missiles, nothing larger can come down low until they are dealt with:.

4. Friendly Forces: A battalion-sized combat team has been assembled from a variety of sources. Detailed task organization is appended below.

5. Concept of Operation: The jump troops will hit first, with the immediate objective of capturing or neutralizing the PAD launchers. Once sufficient PAD launchers have been neutralized, the lift troops and engineers will land by assault lander. The combined force will then secure the stronghold and rescue our people.

Coalition Assault Organization of Forces
Provisional Jump Company, Reformation Coalition Marine Corps, with:
Corps Headquarters, with:
  1 operational command stand
  1 staff uplink stand
  1 tactical command stand
  2 self-ordering scout stands (single figure)
2 Rifle Platoons, each with:
  1 tactical command stand
  3 Rifle Squads, each with:
    1 tactical command infantry stand
    1 infantry stand

Composite Volunteer Jump Company, with:
Headquarters, with:
  1 operational command stand
  1 staff uplink stand
  1 tactical command stand
  2 self-ordering scout stands (single figure)

Balduri Platoon, with:
  1 tactical command stand
  2 Rifle Squads, each with:
    1 tactical command infantry stand
    2 infantry stands
Free Lance Platoon, with:
  1 tactical command stand
  4 Rifle Squads, each with:
    1 tactical command infantry stand
    1 infantry stand

Provisional Lift Infantry Company, 9th Oriflammen Marines, with:
Headquarters and Headquarters Platoon, with:
  Company Headquarters Section, with:
    1 staff uplink TL9 Grav APC
    1 tactical command stand
    1 TL9 Grav APC
  Weapons Section, with:
    2 TL9 8cmL10 mortar stands
    2 LMG stands
    2 TL9 Grav APCs
3 Rifle Platoons, each with:
  Platoon Headquarters, with:
    1 tactical command stand
    1 LMG stand
    1 TL9 Grav APC
  3 Rifle Squads, each with:
    1 tactical command infantry stand
    3 infantry stands
    1 TL9 Grav APC
Tank Platoon (attached), with:
  1 tactical command TL9 Grav Tank
  3 TL9 Grav Tanks

Provisional Assault Engineer Platoon, Nimban Army, with:
Headquarters, with:
  1 tactical command stand
1 Light Squad, with:
  1 tactical command engineer stand
  1 engineer stand
  1 TL9 Grav APC
1 Heavy Squad, with:
  1 assault engineer vehicle
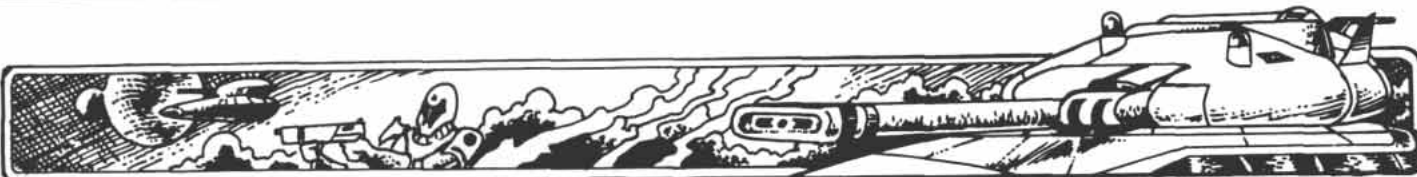
Coalition Assault Force Organization

Provisional Jump Company, Reformation Coalition Marine Corps (Elite, Morale: 22), with:

- **Headquarters**, with:
  - 1 operational command stand
  - 1 staff uplink stand
  - 1 tactical command stand
  - 2 self-ordering scout stands (single figure)
- **2 Rifle Platoons**, each with:
  - 1 tactical command stand
  - **3 Rifle Squads**, each with:
    - 1 tactical command infantry stand
    - 1 infantry stand

Notes: All personnel are wearing heavy battledress. The scouts are wearing the scout variant. All stands are armed with 4mm gauss rifles and TL9 RAM grenades. Each infantry and command infantry stand has an integral plasma bazooka. The drop capsules each have launch rails for Lyrebird missiles. Each stand can designate for its own missiles. Each fireteam stand has four missile shots, while each single-figure stand has one. Command stands and command infantry stands can designate for any missiles belonging to stands subordinate to them.

Troop Quality: Elite **Morale:** 22 **Initiative:** 4
Armor: Heavy Battledress **Save:** 12
Movement: 16 cm

System:	Short (15)	Medium (7)	Long (3)	Extreme (1)	Notes
4mm gauss rifle (dart)	10 cm: 4 (4)	20 cm: 3 (4)	40 cm: 2 (2)	80 cm: 1 (Nil)	
RAM HEAP rifle grenades-9	4 cm: 1 (41+)	8 cm: 1 (41+)	16 cm: 1 (41+)	32 cm: 1 (41+)	EP: 2, BR: 1 cm
10 cm plasma bazooka-10	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1 cm
Lyrebird tgt desig msl HEAP	— 1 (113+)	— 1 (113+)	— 1 (113+)	— 1 (113+)	A3, EP:7, BR:4cm, R:24km, plng
Lyrebird tgt desig msl DP submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A3, EP:16, BR:3cm, R:24km, plng
Sensors:					
3 km passive EMS	300 cm	600 cm	1200 cm	2400 cm	
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km radio	300 cm	600 cm	1200 cm	2400 cm	

Composite Jump Company (Veteran, Morale: 18), with:

- **Headquarters**, with:
  - 1 operational command stand
  - 1 staff uplink stand
  - 1 tactical command stand
  - 2 self-ordering scout stands (single figure)
- **Balduri Platoon**, with:
  - 1 tactical command stand
  - **2 Rifle Squads**, each with:
    - 1 tactical command infantry stand
    - 2 infantry stands
- **Free Lance Platoon**, with:
  - 1 tactical command stand
  - **4 Rifle Squads**, each with:
    - 1 tactical command infantry stand
    - 1 infantry stand

Notes: All personnel are in Coalition light battledress. All stands are armed with 4mm gauss rifles and TL9 RAM grenades. Each infantry and command-infantry stand has an integral plasma bazooka. The drop capsules each have launch rails for Lyrebird missiles. Each stand can designate for its own missiles. Each fireteam stand has four missile shots, while each single-figure stand has one. Command stands and command infantry stands can designate for any missiles belonging to stands subordinate to them.

Troop Quality: Veteran **Morale:** 18 **Initiative:** 3
Armor: Light Battledress **Save:** 6
Movement: 16 cm

System:	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
4mm gauss rifle (dart)	10 cm: 4 (4)	20 cm: 3 (4)	40 cm: 2 (2)	80 cm: 1 (Nil)	
RAM HEAP rifle grenades-9	4 cm: 1 (41+)	8 cm: 1 (41+)	16 cm: 1 (41+)	32 cm: 1 (41+)	EP: 2, BR: 1 cm
10 cm plasma bazooka-10	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1 cm
Lyrebird tgt desig msl HEAP	— 1 (113+)	— 1 (113+)	— 1 (113+)	— 1 (113+)	A3, EP:7, BR:4cm, R:24km, plng
Lyrebird tgt desig msl DP submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A3, EP:16, BR:3cm, R:24km, plng
Sensors:					
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km radio	300 cm	600 cm	1200 cm	2400 cm	

Provisional Lift Infantry Company, 9th Oriflammen Marine Regiment (Veteran, Morale: 18), with:

Headquarters and Headquarters platoon, with:
Company Headquarters Section, with:
1 staff uplink grav APC
1 tactical command stand
1 TL9 Grav APC
Weapons Section, with:
2 TL9 8cmL10 mortar stands
2 LMG stands
2 TL9 Grav APCs
3 Rifle Platoons, each with:
Platoon Headquarters, with:
1 tactical command stand
1 LMG stand
1 TL9 Grav APC
3 Rifle Squads, each with:
1 tactical command infantry stand
3 infantry stands
1 TL9 Grav APC
Tank Platoon (attached), with:
1 tactical command TL9 Grav tank
3 TL9 Grav tanks

Notes: All personnel are in Coalition light battledress.
All stands are armed with 4 cm gauss rifles and TL10 RAM grenades. Each infantry and command infantry stand has an integral plasma bazooka.

Troop Quality: Veteran **Morale:** 18 **Initiative:** 3
Armor: Light Battledress **Save:** 6
Movement: 16 cm

Weapons	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
HE/frag hand grenades-8/9	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
RAM HE rifle grenades-9	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	EP: 3, BR: 2 cm
10 cm plasma bazooka-10	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1 cm
Sensors:					
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km radio	300 cm	600 cm	1200 cm	2400 cm	

See the vehicle cards for the Oriflamme Grav APC (page 108) and Oriflamme Grav Tank (page 110).

Provisional Assault Engineer Platoon, Nimban Army (Veteran, Morale: 18), with:

Headquarters, with:
1 tactical command stand
1 Light Squad, with:
1 tactical command engineer stand
1 engineer stand
1 TL9 Grav APC
1 Heavy Squad, with:
1 assault engineer vehicle

Notes: All personnel stands are equipped with Reformation Coalition light battledress and armed with TL13 2 cm personal defense lasers and integral plasma bazookas.

Troop Quality: Veteran **Morale:** 18 **Initiative:** 3
Armor: Light Battledress **Save:** 6
Movement: 16 cm

Weapons	Short (13)	Medium (6)	Long (3)	Extreme (1)	Notes
2 cm personal defense laser-13	20 cm: 3 (Nil)	40 cm: 2 (Nil)	80 cm: 1 (Nil)	160 cm: 1 (Nil)	
10 cm plasma bazooka-10	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1 cm
Sensors:					
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km radio	300 cm	600 cm	1200 cm	2400 cm	

See the vehicle card for the Oriflamme Grav APC (page 108).
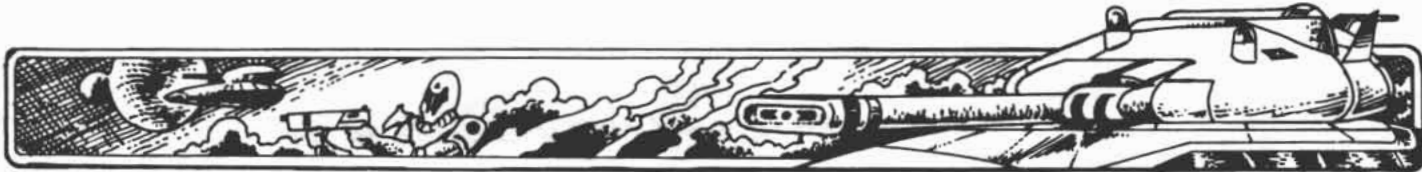
DEFENDER
Briefing and Orders

1. **Situation:** The Star Vikings have learned that their earlier attempts to plant spies on Marax were frustrated and have now returned to launch a full-scale invasion. Instead, they will be driven back in an ocean of blood. We have massed out best units here at Cleft Bagvoot aznd hold an impregnable position.

2. **Objective:** Destroy the enemy assault troops.

3. **Enemy Forces:** Several ships are in orbit, and we must prepare for all manner of attacks.

4. **Friendly Forces:** The majority of the Life Guard is present, as well as picked troops from the Aero-Dragoons and Cuirassiers, and local militia forces. Some of these troops are dispersed to cover all possible landing sites, but can concentrate at the threatened area as soon as the landing takes place.

5. **Concept of Operation:** Protect the PAD missile launchers, as they will keep the enemy from landing heavy troop units. Attack the jump troops vigorously as soon as they land. Concentrate all forces at the most threatened sector. Above all, protect the person of the ruler.

Organization of Forces

This is a very large scenario, and the forces available to the defenders are variable, based on the miniatures available to the players. In general, there should be two or three companies of the Life Guard and the TL10 ADA battery. All other forces are optional, and different vehicles can be substituted for those shown on the data cards if desired (provided they are from the correct tech level). RCES intel isn't perfect.

"Most" of the Life Guard is available guarding the stronghold at Cleft Bagvoot. This should certainly include the headquarters and heavy infantry company, along with at least one more company.

"One or more companies" of the Aero-Dragoons are available, either guarding the stronghold at Cleft Bagvoot or as reinforcements. The battalion headquarters is not available, and the attachments listed are optional. If you do not have helicopter models available, treat the Aero-Dragoons as dismounted, their aircraft knocked out on the ground by the preliminary bombardment.

"One or more companies" of the Cuirassiers are available, either guarding the stronghold at Cleft Bagvoot or as reinforcements. The battalion headquarters is not available, and the attachments listed are optional. Either a mechanized or a motorized company may be available (or both). Different armored vehicles may be substituted, if desired.

The four-launcher air defense battery is equipped with surface-to-space missiles. These missiles are not rated for the scenario but are instead covered by the scenario special rules.

Considerable variation in the organization and equipment of militia units is possible, and company-sized detachments should arrive throughout the battle from the east and west ends of the valley.

The Life Guard

("Most" of the life guard is available guarding the stronghold at Cleft Bagvoot. This should certainly include the headquarters and heavy infantry company, along with at least one more company.)

Battalion Headquarters, with:
- 1 operational command stand
- 1 staff radio stand

Heavy Infantry Company, with:
- **Headquarters**, with:
  - 1 operational command stand
  - 2 self-ordering recon stands (single figure)
  - 1 staff radio stand
- **2 heavy infantry platoons**, each with:
  - 1 tactical command stand
  - **2 squads**, each with:
    - 1 tactical command infantry stand
    - 1 infantry stand
- **Weapons Platoon**, with:
  - 1 tactical command stand
  - 2 crew stands
  - 2 2-Mj field mount plasma guns (towed, mass I)
  - 2 TL9 Ground APCs

Lift Infantry Company, with:
- **Headquarters**, with:
  - 1 operational command stand
  - 1 TL10 Open Air Raft
  - 1 staff radio TL12 Enclosed Air Raft
  - 2 self-ordering Grav Bike stands (single figure)
- **2 lift infantry platoons**, each with:
  - 1 tactical command stand
  - **2 squads**, each with:
    - 1 command infantry stand
    - 2 infantry stands
    - 3 TL10 Open Air Rafts
- **Lift Weapons platoon**, with:
  - 1 tactical command stand
  - 2 crew stands
  - 2 TL9 tac missile launchers
  - 2 TL10 Open Air rafts

2 Infantry Companies, each with:
- **Headquarters**, with:
  - 1 operational command stand
  - 1 TL10 Open Air Raft
  - 1 staff radio TL12 Enclosed Air Raft
  - 2 self-ordering Grav Bike stands (single figure)
- **2 Infantry platoons**, each with:
  - 1 tactical command stand
  - **2 squads**, each with:
    - 1 command infantry stand
    - 2 infantry stands
- **Lift Weapons platoon**, with:
  - 1 tactical command stand
  - 2 crew stands
  - 2 TL9 tac missile launcher

Elements, The Aero-Dragoons

("One or more companies" of the aero-dragoons are available, either guarding the stronghold at Cleft Bagvoot or as reinforcements. The battalion headquarters is not available and the attachment listed is optional.)

1+ Reinforced Aero-Rifle Companis, each with:
Headquarters, with:
1 operational command stand
1 self-ordering infantry stand
1 TL9 Troop Transport Helicopter
1 staff radio TL9 Troop Transport Helicopter
3 Aero-Rifle platoons, each with:
1 tactical command stand
2 squads, each with:
1 command infantry stand
2 infantry stands
1 TL9 Troop Transport Helicopter
Gunship platoon (attached), with:
1 tactical command TL9 Helicopter Gunship
2 TL9 Helicopter Gunships

Elements, The Cuirassiers

("One or more companies" of the cuirassiers are available, either guarding the stronghold at Cleft Bagvoot or as reinforcements. The battalion headquarters is not available and the attachments listed are optional. Either a mechanized or a motorized company may be available (or both). Different armored vehicles may be substituted, if desired.)

Reinforced Mechanized Company, with:
Headquarters, with:
1 operational command stand
1 self-ordering infantry stand
1 TL9 Ground APC
1 staff radio TL9 Ground APC
2 Mechanized platoons, each with:
1 tactical command stand
2 squads, each with:
1 command infantry stand
1 infantry stand
1 TL9 "Abomination" Infantry Assault Vehicle
Armored car platoon (attached), with:
1 tactical command stand
1 self-ordering infantry stands
2 infantry stands
3 Charina armored cars/or TL9 ground APCs
(or)
Reinforced Motorized Company, with:
Headquarters, with:
1 operational command stand
1 self-ordering infantry stand
1 TL9 Ground APC
1 staff radio TL9 Ground APC
2 Mechanized platoons, each with:
1 tactical command stand
2 squads, each with:
1 command infantry stand
1 infantry stand
1 TL9 Ground APC
Tank platoon (attached), with:
1 tactical command TL9 Ground Tank
2 TL9 Ground Tanks

The Militia

1+ Militia Infantry Company, with:
Headquarters, with:
1 operational command stand
1 self-ordering infantry stand
2 Militia platoons, each with:
1 tactical command stand
1 MG stand
1 rocket launcher stand
2 squads, each with:
1 command infantry stand
3 infantry stands

Strategic Air Defense Battery

This is a 4-launcher air defense battery equipped with surface-to-space missiles. These missiles are not rated for the scenario, but are instead covered by the scenario special rules.

Headquarters, with:
1 operational command stand
1 staff radio stand
1 infantry stand
2 firing platoons, each with:
1 tactical command stand
2 crew stands
2 infantry stands
2 TL10 strategic ADA missile launchers
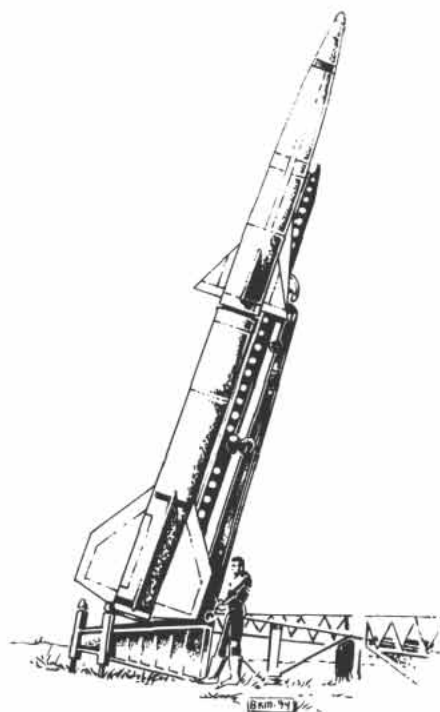
Life Guard (Heavy Infantry Company)
Troop Quality: Experienced **Morale:** 16 **Initiative:** 1
Armor: Battledress **Save:** 4
Movement: 14 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
7mm carbine-5	5 cm: 3 (2)	10 cm: 2 (2)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
RAM HEAP rifle granades-9	4 cm: 1 (41+)	8 cm: 1 (41+)	16 cm: 1 (41+)	32 cm: 1 (41+)	EP: 3, BR: 1 cm
2-Mj plasma field gun	14 cm: 2 (42+)	28 cm: 1 (42+)	56 cm: 1 (21+)	112 cm: 1 (4+)	EP: 3, BR: 1 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications					
3 km Radio	300 cm	600 cm	1200 cm	2400 cm	

Notes: All personnel stands in the heavy infantry company have TL10 battledress. All command, command infantry and infantry stands are armed with TL10 7mm ACRs (firing DS ammunition) and RAM HEAP grenades. All crew stands have 7mm carbines.

Photocopy vehicle cards for the TL9 ground APC (page 128) and fill in unit values. Initiative of the APCs will be 3 (as it is not reduced by battledress).

Life Guard (Main Body)
Troop Quality: Experienced **Morale:** 16 **Initiative:** 3
Armor: Combat armor **Save:** 2
Movement: 18 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm ACR-10 (DS)	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
7mm carbine-5	5 cm: 3 (2)	10 cm: 2 (2)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
RAM HEAP rifle granades-9	4 cm: 1 (41+)	8 cm: 1 (41+)	16 cm: 1 (41+)	32 cm: 1 (41+)	EP: 3, BR: 1 cm
TL9 Laser desig. Tac msl-HEAP	—1 (113+)	—1 (113+)	—1 (113+)	—1 (113+)	A6, EP: 7, BR: 4 cm, R: 21 km
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km Radio	300 cm	600 cm	1200 cm	2400 cm	

Notes: All personnel stands have TL10 combat armor. All command, command infantry and infantry stands are armed with TL10 7mm ACRs (firing DS ammunition) and RAM HEAP grenades. All crew stands have 7mm carbines. All tactical and operational comand stands have 3- km short range laser designtors, as do the Tac missile launch stands themselves.

Photocopy vehicle cards for the TL10 Open Air Raft (page 129) and TL12 Enclosed Air Raft (page 130) and fill in unit values.

The Aero-Dragoons
Troop Quality: Experienced **Morale:** 16 **Initiative:** 3
Armor: Combat Environment Suits **Save:** 1 (no save vs. lasers)
Movement: 20 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm assault rifle-7 ball	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
2 cm LAG-8 DS	25 cm: 3 (6)	50 cm: 2 (6)	100 cm: 1 (2)	200 cm: 1 (1)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km Radio	300 cm	600 cm	1200 cm	2400 cm	

Notes: All stands are equipped with helmets and combat environment suits. Command, command infantry, and infantry stands are armed with 7mm assault rifles. All infantry and command infantry stands have integral LAGs.

Photocopy vehicle cards for the TL9 Troop Transport Helicopter (page 128) and TL9 Helicopter Gunship (page 129) and fill in unit values.

The Cuirassiers

Troop Quality: Novice **Morale:** 16 **Initiative:** 1
Armor: Combat environment suits **Save:** 1 (no save vs. lasers)
Movement: 20 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm assault rifle-7 ball	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm carbine-5	5 cm: 3 (2)	10 cm: 2 (2)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
2 cm LAG-8 DS	25 cm: 3 (6)	50 cm: 2 (6)	100 cm: 1 (2)	200 cm: 1 (1)	
7mm rotary gun-8 ball	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km Radio	300 cm	600 cm	1200 cm	2400 cm	

Notes: All dismount stands are equipped with helmets and combat environment suits. Command, command infantry, and infantry stands are armed with 7mm assault rifles. Crew stands are armed with 7mm carbines. All infantry and command infantry stands have integral LAGs. The MG stands have TL8 7mm rotary guns on tripods. Photocopy vehicle cards for the TL9 Ground APC (page 128), TL9 Ground Tank (page 127), and "Abomination" Infantry Assault Vehicle (page 128), and fill in unit values.

The Militia

Troop Quality: Novice **Morale:** 12 **Initiative:** 1
Armor: None
Movement: 20 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm rifle-5 ball	6 cm: 3 (2)	12 cm: 2 (2)	24 cm: 1 (Nil)	48 cm: 1 (Nil)	
7mm MMG-5 ball	15 cm: 5 (2)	30 cm: 4 (2)	60 cm: 3 (Nil)	120 cm: 2 (Nil)	
Medium ATRL-6	20 cm: 1 (35+)	40 cm: 1 (35+)	—	—	A3, EP: 4. BR: 3 cm
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km Radio	300 cm	600 cm	1200 cm	2400 cm	

Notes: All militia troops are unarmored. All command, command infantry, and infantry stands are armed with TL5 7mm rifles. The MG stands have TL6 7mm tripod MGs. The rocket launcher stand has a TL6 medium antitank rocket launcher.

Strategic Air Defense Battery

Troop Quality: Novice **Morale:** 14 **Initiative:** 1
Armor: None
Movement: 20 cm

System:	Short (11)	Medium (5)	Long (2)	Extreme (1)	Notes
7mm carbine-5	5 cm: 3 (2)	10 cm: 2 (2)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km Radio	300 cm	600 cm	1200 cm	2400 cm	

Notes: The command and crew stands all are unarmored and are armed with 7mm carbines.

Equipment rated in **Traveller** or designed using **Fire, Fusion & Steel** may be used in **Striker** games very easily. Use the following guides for filling out the unit data card.

INITIATIVE

Initiative is not an equipment issue, but it is calculated for every unit in the game. Initiative is based on the NPC experience level of the troops making up the unit, as shown below. In the case of player characters, the actual initiative value is used.

Initiative can be reduced due to body armor. This subtraction is made from the numeric initiative value before it is recorded on the unit card.

Level	Initiative
Elite	5
Veteran	4
Experienced	3
Novice	1

DIRECT FIRE WEAPONS

Most information on direct fire is contained in the four range columns of the card and the final comments column.

Range: Calculate short range in **Striker** (in centimeters) by dividing the **Traveller/FF&S** range (in meters) by 10, rounding to the nearest whole number. Note that this will mean some weapons with very poor range performance may not have a short range at all. Medium, long and extreme ranges are calculated by progressive doubling of the short range.

Thrown grenades have a short range of 1 cm, medium of 2 cm, long of 3 cm and extreme of 4 cm.

Number of Dice: Each weapon has a specified number of dice which are rolled for it at close range. This number is reduced by 1 for each additional increment of range, but is never reduced to less than 1.

Existing weapons from **Traveller** may be rated using the following table.

ROF	Dice
1/2, reload, etc.	1
SS, BA, LA, DAR, SA-1	2
PA, SA, SA-2+	3
5 or 10, hand-held, 3 (all)	4
5 or 10, mounted	5
50+	7

Penetration: The **Striker** penetration is the **Traveller** penetration value. To calculate the penetration value for small arms, divide their damage value by their penetration rating, rounding to the nearest whole number. Note that a separate penetration value is calculated for each range band unless the weapon has constant penetration.

For weapons whose penetration is the printed value plus a 2D6 roll, write a "+" sign after the penetration.

Comments: In this column, write F if the weapon uses the fire control bonus listed on the card and S if the weapon is stabilized, then write the value for the explosion of the warhead (if it is an exploding round).

Explosive Power: The explosive power of a round in **Striker** is twice the square root of its **Traveller/FF&S** concussion value, rounding to the nearest whole number. However, the maximum explosive value allowed in the game is 18.

Burst: To find the **Striker** burst radius in centimeters, divide the **Traveller** primary burst radius (in meters) by 10, rounding all fractions up.

Nuclear Burst: The **Striker** destruction and burst radii in centimeters are calculated by dividing the **Traveller** destruction and primary burst radii in meters by 10. All nuclear explosions have an explosive power of 18 in their burst radius.

Missiles: The missile's agility is the same as that in **Traveller** or calculated from FF&S. The missile's range depends on its guidance type. Note that all target memory and target seeker missiles are treated as homing missiles for purposes of **Striker**.

Towed Weapons

Calculate the mass class the same as for vehicles.

INDIRECT FIRE WEAPONS

Range: Indirect fire weapons have only a single range listed (in the comments column) which is its maximum indirect fire range in kilometers. Each kilometer is one meter (100 cm) on the gaming table.

Rocket Salvoes: To find the burst radius of a rocket salvo, multiply the burst radius of a single round by the square root of the number of rounds in the salvo, rounding the final value to the nearest whole number.

Towed Weapons

Calculate the mass class the same as for vehicles.

ELECTRONICS

Sensors

Range is recorded the same as for direct-fire weapons. Some sensors with very long ranges have them listed in kilometers instead of centimeters. Each kilometer is one meter on the table (which will make most detection tasks in the game carried out at close range).

Sensor jammers are listed under other ECM. Sensors with direction finding capability are noted in the comments column.

COMMUNICATORS

Range is recorded the same as for direct-fire weapons. Some communicators with very long ranges have them listed in kilometers instead of centimeters. Each kilometer is one meter on the table. Extreme range of communicators is the maximum distance at which they can be used on the table or when calling fire. Other range bands are used when determining the chance of locating the **communicator with a direction finder**. Communication jammers are listed under communicators.

PERSONNEL

Armor

Note the type of armor and its save number. The save number is the same as for **Traveller** armor. If the armor has two different value, use the lower of the two. If the armor covers only part of the target, average the two values, rounding to the nearest whole number. If it is melee armor only, record its save value in parentheses.

Movement

To find the movement allowance in centimeters for personnel, take the **Traveller** walking speed in meters and multiply by 2.

Some types of body armor reduce the movement allowance due to their agility reductions. Subtract two centimeters from the movement allowance for every agility reduction due to body armor.

VEHICLES

By using the blank vehicle form and examining the sample vehicles

already rated in **Striker**, it should be easy to rate your own **FF&S** or other **Traveller** vehicles. The following notes should answer any questions.

Movement: To find the cross-country movement allowance for ground vehicles, in centimeters, take the safe cross-country combat speed (in meters) and multiply by 2. A vehicle with a cross-country safe combat speed of 10 meters would have a **Striker** cross-country movement allowance of 20 centimeters.

For road speed, follow the same procedure, but use safe road speed instead.

To find the NOE movement allowance in centimeters for flying vehicles, multiply the **Traveller** safe NOE speed in 10-meter grid squares by 20.

To find the high-altitude travel movement for flying vehicles in centimeters, multiply the **Traveller** high altitude movement rating in 10-meter grid squares by 60.

Agility: Agility is also based on the combat movement allowance. To find the cautious advance agility of any movement allowance, find the **Striker Cautious Advance speed on the Agility table below**, and find its corresponding Agility. Double the speed to find the rapid advance agility and triple it to find the travel move agility.

To find the travel movement agility of aircraft, find their high altitude movement allowance in the Striker High Move column of the Agility table and read its corresponding Agility.

See the Agility Table below.

Armor: Vehicle armor is transferred directly from **Traveller** values.

Mass Class: Compare the vehicle's loaded mass to the following table.

Loaded Mass	Mass Class
Up to 1.499 tonnes	I
1.50-2.99 tonnes	II
3-8.99 tonnes	III
9-19.99 tonnes	IV
20-35.99 tonnes	V
36+ tonnes	VI

Explosive Damage Modifier: The vehicle's explosive damage modifier is based on the thinnest armor face or the vehicle's mass class, whichever is less. Add 1 to the correct value, and express the result as a negative number: This is the explosive damage modifier. For purposes of this calculation, refigure the mass class of flying vehicles by dividing their mass by 10.

For example, a vehicle has a mass class of III and is open-topped. The lower value of the two is its thinnest armor (which is 0 on the top). Adding 1 results in an explosive damage modifier of –1.

Cargo Capacity: List both the number of fireteam stands carried and the cargo tonnage. The number of stands carried is the total number of passengers divided by 4, rounding down. If the final value is less than 1, record the total number of passengers, but append the note "single-figure stands."

Environment: This covers two criteria: crew life support and power plant. For crew life support, a vehicle is considered to be sealed, overpressure or unsealed. Sealed includes any pressurized vehicle with basic or extended life support; overpressure includes vehicles equipped with an overpressure system; and unsealed includes all other vehicles, including all open-topped vehicles.

Power plants can be listed as air-breathing, nonair-breathing, and filtered air-breathing. Nonair-breathing power plants are fuel cells, nuclear power plants, matter-antimatter power plants, solar arrays, batteries, explosive power generators, rockets and liquid hydrogen burning power plants that have been modified to carry their own liquid oxygen. Air-breathers are all other types of power plants. Air-breathing plants may be designated as equipped with filters during the **FF&S** design sequence.

Electronic Warfare: Note here whether the vehicle is a stealth design or has electro-magnetic masking. If the vehicle has decoys, note that fact. For the number of turns of decoys carried, divide the number of decoys by 15 and round to the nearest whole number.

Ammunition: Note the number of game shots carried for all nonsmall arms (2 cm and larger in bore) weapons.

Game shots are based on the number of rounds carried in **Traveller**.

For missiles, divide the number of missiles carried by 2 to determine game shots.

For heavy weapons with a **Traveller** rate of fire of less than 3, divide the number of rounds carried by 4 to determine the number of game shots.

For heavy weapons with a **Traveller** rate of fire of 3 or more, divide the number of rounds carried by 10 to determine the number of game shots.

Maintenance Points: Maintenance points from **Traveller** and **FF&S** are transferred directly to **Striker**.

NOTES

The following abbreviations are used in the vehicle and equipment data tables in this book:

A: Agility, **BR:** Burst radius, **DR:** Destruction radius, **DS:** Danger space, **ED:** EMS designated, **EP:** Explosive power, **F:** Fire control benefit applies to weapon, **H:** Hull mount weapon, **IFR:** Indirect fire range, **LD:** Laser designated, **N:** Rate of fire varies depending on starship, **R:** Range, **S:** Stabilization benefit applies to weapon.

AGILITY				
Traveller Meters per Combat Turn	kph	Striker Cautious Advance	Striker High Move	Agility
up to 29	up to 21	up to 119	up to 179	—
30-59	22-42	120-239	180-359	1
60-119	43-85	240-479	360-719	2
120-239	86-171	480-959	720-1439	3
240-479	172-343	960-1919	1440-2879	4
480-959	344-687	1920-3839	2880-5759	5
960-1919	688-1375	3840-7679	5760-11,519	6
1920-3839	1376-2751	7680-15,359	11,520-23,039	7
3840-7679	2752-5503	15,360-30,719	23,040-33,023	8
7680+	5504+	30,720+	33,024+	9

Imperial Heavy Grav Tank (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 6540 high (+6)
    Front Armor: 336
    Side Armor: 168
    Rear Armor: 168
    Deck Armor: 252
    Belly Armor: 252
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (16)
Ammunition: 50 shots for fusion gun, unlimited for gauss gun
Maintenance Points: 72

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
175-Mj RF fusion gun	198 cm: 3 (397+)	396 cm: 2 (397+)	792 cm: 1 (198+)	1584 cm: 1 (40+)	F, S, EP: 18, BR: 4 cm
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Imperial Heavy Grav Command Tank (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 8160 high (+6)
    Front Armor: 336
    Side Armor: 168
    Rear Armor: 168
    Deck Armor: 252
    Belly Armor: 252
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 3 single-figure stands
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (16)
Ammunition: Unlimited shots for gauss gun
Maintenance Points: 72

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	
ECM:					
30 km EMS jammer	(30 km)	(60 km)	(120 km)	(240 km)	Area capable

Imperial Astrin-type Grav APC (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3,+4), 7260 high (+6)
    Front Armor: 258
    Side Armor: 129
    Rear Armor: 129
    Deck Armor: 129
    Belly Armor: 129
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 50 shots for fusion gun
Maintenance Points: 34

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
3-Mj RF fusion gun	26 cm: 5 (52+)	52 cm: 4 (52+)	104 cm: 3 (26+)	208 cm: 2 (5+)	F, S, EP: 3, BR: 1 cm
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Imperial Marine Grav APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 9120 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 50 shots for fusion gun, 13 missile shots
Maintenance Points: 39

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
18.5-Mj RF fusion gun	65 cm: 4 (129+)	130 cm: 3 (129+)	260 cm: 2 (65+)	520 cm: 1 (13+)	F, S, EP: 8, BR: 2 cm
Missiles:					
See Imperial TL15 95kg Heavy Tac Missiles chart (page 132)					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	

Imperial Marine Support APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 8580 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2 single-figure stands
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 47 shots for fusion gun, 13 missile shots
Maintenance Points: 40

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
74-Mj RF fusion gun	129 cm: 3 (258+)	258 cm: 2 (258+)	516 cm: 1 (129+)	1032 cm: 1 (26+)	F, S, EP: 16, BR: 3 cm
Missiles: 95kg Heavy Tac Missiles chart (page 132)					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	

Imperial Point Defense APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 7260 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2 single-figure stands
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 400 shots for fusion gun
Maintenance Points: 47

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
18.5-Mj RF fusion gun	65 cm: 5 (129+)	130 cm: 4 (129+)	260 cm: 3 (65+)	520 cm: 2 (13+)	F, S, EP: 8, BR: 2 cm
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
300 km active EMS	(300 km)	(600 km)	(1200 km)	(2400 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Imperial Marine Command APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 9120 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 1
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 50 shots for fusion gun, 3 missile shots
Maintenance Points: 39

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
18.5-Mj RF fusion gun	65 cm: 4 (129+)	130 cm: 3 (129+)	260 cm: 2 (65+)	520 cm: 1 (13+)	F, S, EP: 8, BR: 2 cm
Missiles: See Imperial TL15 95kg Heavy Tac Missiles chart (page 132)					
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	
ECM:					
30 km EMS jammer	(30 km)	(60 km)	(120 km)	(240 km)	Area capable

Imperial Nuclear Damper APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 10,140 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (8)
Ammunition: Unlimited
Maintenance Points: 40

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
3000 km nuclear damper	(3000 km) 1	(6000 km) 1	(12,000 km) 1	(24,000 km) 1	F, S, H
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km active EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Imperial ND Control APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 7620 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 300 shots for fusion gun
Maintenance Points: 45

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
18.5-Mj RF fusion gun	65 cm: 5 (129+)	130 cm: 4 (129+)	260 cm: 3 (65+)	520 cm: 2 (13+)	F, S, EP: 8, BR: 2 cm
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km active EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Norris Grav Tank (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 6540 high (+6)
    Front Armor: 258
    Side Armor: 129
    Rear Armor: 129
    Deck Armor: 129
    Belly Armor: 129
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 26 shots for fusion gun, unlimited shots for gauss gun
Maintenance Points: 39

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
175-Mj RF fusion gun	198 cm: 3 (397+)	396 cm: 2 (397+)	792 cm: 1 (198+)	1584 cm: 1 (40+)	F, S, EP: 18, BR: 4 cm
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Trepida I/Intrepid/74 Grav Tank (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3,+4), 5940 high (+6)
    Front Armor: 258
    Side Armor: 129
    Rear Armor: 129
    Deck Armor: 129
    Belly Armor: 129
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 102 shots for fusion gun, unlimited for gauss gun
Maintenance Points: 40

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
74-Mj RF fusion gun	129 cm: 3 (258+)	258 cm: 2 (258+)	516 cm: 1 (129+)	1032 cm: 1 (26+)	F, S, EP: 16, BR: 3 cm
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Trepida IIA/Intrepid/125-1 Grav Tank (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3,+4), 5940 high (+6)
    Front Armor: 258
    Side Armor: 129
    Rear Armor: 129
    Deck Armor: 129
    Belly Armor: 129
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 42 shots for fusion gun
Maintenance Points: 39

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
125-Mj RF fusion gun	168 cm: 3 (335+)	336 cm: 2 (335+)	672 cm: 1 (168+)	1344 cm: 1 (34+)	F, S, EP: 18, BR: 4 cm
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Trepida IIB/Intrepid/125-2 Grav Tank (TL14)

Troop Quality: _____ **Morale:** _____ **Initiative:** _____
Movement: 500 low (+3,+4), 5640 high (+6)
    Front Armor: 258
    Side Armor: 129
    Rear Armor: 129
    Deck Armor: 129
    Belly Armor: 129
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as _no order_ for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 50 shots for fusion gun
Maintenance Points: 40

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
T25-Mj RF fusion gun	168 cm: 3 (335+)	336 cm: 2 (335+)	672 cm: 1 (168+)	1344 cm: 1 (34+)	F, S, EP: 18, BR: 4 cm
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Imperial Fire Support Grav APC (TL15)

Troop Quality: _____ **Morale:** _____ **Initiative:** _____
Movement: 520 low (+3,+4), 6300 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 140
    Belly Armor: 126
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as _no order_ for ROF and sequence of fire purposes)

Cargo Capacity: 2 single-figure stands
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM, decoys (8)
Ammunition: Unlimited shots for gauss gun, 92 shots of missiles (any combination)
Maintenance Points: 38

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Missiles: See Imperial TL15 30kg Light "Fire and Forget" Tac Missiles chart (page 132)					H
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Imperial Grav APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 6300 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 140
    Belly Armor: 126
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: None
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 3
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 3 shots of heavy missiles (any combination of above), 15 shots of fire & forget missiles (any combination of above)
Maintenance Points: 37

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Heavy Missiles: See Imperial TL15 95kg Heavy Tac Missiles chart (page 132)					H
Fire & Forget Missiles: See Imperial TL15 30kg Light "Fire and Forget" Tac Missiles chart (page 132)					H
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	

Imperial MRL Artillery Vehicle (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 8940 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 140
    Belly Armor: 126
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Indirect Fire Control only
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (8)
Ammunition: 10 single shots (any combination) or one single salvo, plus autoloader fitted (one full turn to reload)
Maintenance Points: 45

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Missiles: See Imperial TL15 EMS-Designated MRL "Rockets" table (page 132)					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Imperial Utility Sled (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 10,020 high (+6)
  Front Armor: 56
  Side Armor: 28
  Rear Armor: 28
  Deck Armor: 28
  Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 7 stands or 18 tonnes cargo
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (8)
Ammunition: None
Maintenance Points: 12

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	

Imperial Meson Artillery Vehicle (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 6660 high (+6)
  Front Armor: 28
  Side Armor: 14
  Rear Armor: 14
  Deck Armor: 14
  Belly Armor: 14
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Indirect Fire Control only
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (3)
Ammunition: Unlimited
Maintenance Points: 57

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
663-Mj meson gun	(3000 km) 1 (N/A)				H, EP: 11, BR: 2 cm
		(6000 km) 1 (N/A)			H, EP: 7, BR: 1 cm
			(12,000 km) 1 (N/A)		H, EP: 4, BR: 1 cm
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	

Imperial Recovery Sled (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 280 low (+2, +3), 3360 high (+5)
   Front Armor: 11
   Side Armor: 7
   Rear Armor: 7
   Deck Armor: 7
   Belly Armor: 7
Mass Class: VI
Explosive Damage Modifier: –4 (unloaded), –7 (loaded)
Fire Control: None
Stabilization: None

Cargo Capacity: 424 tonnes
Environmental: Sealed, nonair-breathing
Electronic Warfare: Stealth (+2 vs. Radar & HRT), decoys (8)
Ammunition: None
Maintenance Points: 6

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	

Imperial Marine FDC APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 9120 high (+6)
   Front Armor: 252
   Side Armor: 140
   Rear Armor: 126
   Deck Armor: 126
   Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods, Fire Direction Center (range: 80 km)
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: 50 shots for fusion gun, 3 missile shots
Maintenance Points: 39

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
18.5-Mj RF fusion gun	65 cm: 4 (129+)	130 cm: 3 (129+)	260 cm: 2 (65+)	520 cm: 1 (13+)	F, S, EP: 8, BR: 2 cm
Missiles: See Imperial TL15 95kg Heavy Tac Missiles chart (page 132)					
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Imperial FDC Grav APC (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 6300 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 140
    Belly Armor: 126
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Ignores 5 diff mods, Fire Direction Center (range: 80 km)
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 1
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (8)
Ammunition: Unlimited shots for gauss gun
Maintenance Points: 38

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Armed Air Raft (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 6240 high (+6)
    Front Armor: 8
    Side Armor: 4
    Rear Armor: 4
    Deck Armor: 4
    Belly Armor: 4
Mass Class: III
Explosive Damage Modifier: –2
Fire Control: Ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 1
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: Unlimited shots for gauss gun, 6 shots of missiles (any combination)
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Missiles: See Imperial TL15 30kg Light "Fire and Forget" Tac Missiles chart (page 132)					H
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
Communications:					
30 km maser	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Rampart Fighter (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 80 low (—,+1), 49,200 high (+9)
    Front Armor: 62
    Side Armor: 62
    Rear Armor: 62
    Deck Armor: 62
    Belly Armor: 62
Mass Class: VI
Explosive Damage Modifer: –6
Fire Control: Ignores 5 diff mods
Stabilization: None

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS)
Ammunition: Unlimited shots for laser

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
144-Mj laser	∞: 1 (300)	N/A	N/A	N/A	
Sensors:					
60,000 km passive EMS	∞	∞	∞	∞	DF capable
300,000 km active EMS	∞	∞	∞	∞	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
1000 AU maser	∞	∞	∞	∞	

Imperial RDM Artillery Vehicle (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 9180 high (+6)
    Front Armor: 252
    Side Armor: 140
    Rear Armor: 126
    Deck Armor: 140
    Belly Armor: 126
Mass Class: VI
Explosive Damage Modifer: –6
Fire Control: Drone missile control only
Stabilization: None

Cargo Capacity: None
Environmental: Sealed, Nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (8)
Ammunition: 17 shots (any combination)
Maintenance Points: 44

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
TL15 Imperial 0.1-ton remote drone missiles (page 133)					H
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	
300 km meson communicator	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Intrepid/120 Grav Tank (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3,+4), 6000 high (+6)
   Front Armor: 258
   Side Armor: 129
   Rear Armor: 129
   Deck Armor: 129
   Belly Armor: 129
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 4 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 130 shots for main gun (any of above types) plus unlimited shots for machinegun
Maintenance Points: 47 (at TL12)

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
12cmL75 gun-APFSDSDU (9)	78 cm: 3 (331+)	156 cm: 2 (321+)	312 cm: 1 (311+)	624 cm: 1 (291+)	F, S
12cmL75 gun-APFSDSCI (10)	78 cm: 3 (491+)	156 cm: 2 (481+)	312 cm: 1 (471+)	624 cm: 1 (451+)	F, S
12cmL75 gun-APFSDSSD (12)	78 cm: 3 (545+)	156 cm: 2 (535+)	312 cm: 1 (525+)	624 cm: 1 (505+)	F, S
12cmL75 gun-HEAP (9)	58 cm: 3 (137+)	116 cm: 2 (137+)	232 cm: 1 (137+)	464 cm: 1 (137+)	F, S, EP: 9, BR: 4 cm
12cmL75 gun-HE (9)	58 cm: 3 (11+)	116 cm: 2 (11+)	232 cm: 1 (11+)	464 cm: 1 (11+)	F, S, EP: 11, BR: 4 cm
12cmL75 gun-flechette (9)	58 cm: 3* (2)	116 cm: 2* (2)	232 cm: 1* (2)	464 cm: 1* (2)	F, S, DS: 3 cm×12 cm
15mm RC(E) HMG-ball	30 cm: 7 (8)	60 cm: 6 (8)	120 cm: 5 (8)	240 cm: 4 (8)	F, S
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Convertible Air Raft (TL12)

Troop Quality: _____ Morale: _____ Initiative: _____
Note: Values below separated by a slash are in enclosed/open configurations
Movement: 440 low (+2,+3), 5280 high enclosed configuration (+5), 2520 high open configuration (+4)
   Front Armor: 4/4
   Side Armor: 2/2
   Rear Armor: 2/2
   Deck Armor: 2/Open
   Belly Armor: 2/2
Mass Class: III
Explosive Damage Modifier: –2/–1
Fire Control: None
Stabilization: None

Cargo Capacity: 1
Environmental: Sealed, filtered air-breathing/Open, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 2

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km laser	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Pyrrhus Support Sled (TL13)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 480 low (+3,+4), 6000 high (+6)
    Front Armor: 60
    Side Armor: 8
    Rear Armor: 4
    Deck Armor: 8
    Belly Armor: 4
Mass Class: VI
Explosive Power Modifier: –4
Fire Control: Ignores 4 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: None
Ammunition: 100 shots for fusion gun plus unlimited shots for machinegun and laser designator
Maintenance Points: 7

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
12-Mj plasma gun	35 cm: 2 (104+)	70 cm: 1 (104+)	140 cm: 1 (52+)	280 cm: 1 (10+)	F, S, EP: 7, BR: 2 cm
7.5mm LMG-ball	30 cm: 5 (4)	60 cm: 4 (4)	120 cm: 3 (2)	240 cm: 2 (2)	F, S
laser designator	30 cm	60 cm	120 cm	240 cm	F, S
Sensors:					
3 km active EMS	300 cm	600 cm	1200 cm	2400 cm	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
30 km laser	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	
ECM:					
3- km EMS jammer	300 cm	600 cm	1200 cm	2400 cm	Self only

Mongoose Attack Speeder (TL12)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 440 low (+2,+3), 6660 high (+6)
    Front Armor: 21
    Side Armor: 16
    Rear Armor: 11
    Deck Armor: 11
    Belly Armor: 11
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: Ignores 4 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: —
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (1)
Ammunition: 75 shots for fusion gun, 4 missile shots (any combination)
Maintenance Points: 16

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
4.75-Mj RF fusion gun	22 cm: 2 (65+)	44 cm: 1 (65+)	88 cm: 1 (33+)	176 cm: 1 (7+)	F, S, EP: 4, BR: 1 cm
Missiles: See the Reformation Coalition TL12 Tac Missiles table (page 132)					H
Sensors:					
300 km active EMS	(300 km)	(600 km)	(1200 km)	(2400 km)	
300 km ladar	(300 km)	(600 km)	(1200 km)	(2400 km)	Designator capable
300 km passive EMS	(300 km)	(600 km)	(1200 km)	(2400 km)	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
300 km maser	(300 km)	(600 km)	(1200 km)	(2400 km)	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
ECM:					
3 km EMS jammer	(30 km)	(60 km)	(120 km)	(240 km)	Self only
50 km Area jammer	(50 km)	(100 km)	(200 km)	(400 km)	

Ferret Attack Speeder (TL12)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 440 low (+2,+3), 6660 high (+6)
    Front Armor: 21
    Side Armor: 16
    Rear Armor: 11
    Deck Armor: 11
    Belly Armor: 11
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: Ignores 4 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (1)
Ammunition: 75 shots for fusion gun, 2 missile shots (any combination of above)
Maintenance Points: 16

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
14-Mj RF fusion gun	37 cm: 1 (112+)	74 cm: 1 (112+)	148 cm: 1 (56+)	296 cm: 1 (11+)	F, S, EP: 7, BR: 2 cm
Missiles: See the Reformation Coalition TL12 Tac Missiles table (page 132)					H
Sensors:					
300 km active EMS	(300 km)	(600 km)	(1200 km)	(2400 km)	
300 km ladar	(300 km)	(600 km)	(1200 km)	(2400 km)	Designator capable
300 km passive EMS	(300 km)	(600 km)	(1200 km)	(2400 km)	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
300 km maser	(300 km)	(600 km)	(1200 km)	(2400 km)	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
ECM					
3 km EMS jammer	(30 km)	(60 km)	(120 km)	(240 km)	Self only
50 km Area jammer	(50 km)	(100 km)	(200 km)	(400 km)	

Thunderchicken Attack Helicopter (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 220 low (+1,+2), 9180 high (+6)
    Front Armor: 0
    Side Armor: 0
    Rear Armor: 0
    Deck Armor: 0
    Belly Armor: 0
Mass Class: V
Explosive Damage Modifier: 0
Fire Control: None
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, filtered air-breathing
Electronic Warfare: Stealth (+2 vs. Radar & HRT), decoys (4)
Ammunition: 13 shots of missiles (any combination)
Maintenance Points: 6

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
Missiles only					
Missiles: See the Reformation Coalition TL9 Tac Missiles table (page 132)					H
Sensors:					
3 km radar	300 cm	600 cm	1200 cm	2400 cm	Designator capable
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scopes	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Laser designator	(30 km)	(60 km)	(120 km)	(240 km)	
Communications:					
30 km laser	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Oriflamme Assault Sled (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 6300 high (+6)
    Front Armor: 84
    Side Armor: 30
    Rear Armor: 30
    Deck Armor: 30
    Belly Armor: 38
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: None
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 4
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: Unlimited shots for HMG
Maintenance Points: 51

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
15mm RC(E) HMG-ball	30 cm: 7 (8)	60 cm: 6 (8)	120 cm: 5 (8)	240 cm: 4 (8)	S
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
30 km radar	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme Grav APC (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 6300 high (+6)
    Front Armor: 60
    Side Armor: 30
    Rear Armor: 30
    Deck Armor: 30
    Belly Armor: 38
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: None
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 4
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: Unlimited shots for HMG
Maintenance Points: 40

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
15mm RC(E) HMG-ball	30 cm: 7 (8)	60 cm: 6 (8)	120 cm: 5 (8)	240 cm: 4 (8)	S
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
30 km radar	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme Cavalry Vehicle (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 5880 high (+6)
    Front Armor: 48
    Side Armor: 33
    Rear Armor: 24
    Deck Armor: 24
    Belly Armor: 34
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: Point Defense FC, ignores 2 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: 50 shots for 7cm gun (any combination), unlimited shots for HMG
Maintenance Points: 24

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
7cm L75 gun-APFSDSDU-9	74 cm: 3 (139+)	148 cm: 2 (129+)	296 cm: 1 (119+)	592 cm: 1 (99+)	F, S
7cm L75 gun-APFSDSCI-10	74 cm: 3 (204+)	148 cm: 2 (194+)	296 cm: 1 (184+)	592 cm: 1 (164+)	F, S
7cm L75 gun-APFSDSSD-12	74 cm: 3 (225+)	148 cm: 2 (215+)	296 cm: 1 (205+)	592 cm: 1 (185+)	F, S
7cm L75 gun-HEAP	55 cm: 3 (77+)	110 cm: 2 (77+)	220 cm: 1 (77+)	440 cm: 1 (77+)	F, S, EP: 5, BR: 2 cm
7cm L75 gun-HE	55 cm: 3 (4+)	110 cm: 2 (4+)	220 cm: 1 (4+)	440 cm: 1 (4+)	F, S, EP: 6, BR: 3 cm
7cm L75 gun-flechette	55 cm: 3* (2)	110 cm: 2* (2)	220 cm: 1* (2)	440 cm: 1* (2)	F, S, DS: 3×11 cm
15mm RC(E) HMG-ball	30 cm: 7 (8)	60 cm: 6 (8)	120 cm: 5 (8)	240 cm: 4 (8)	F, S
Sensors:					
30 km radar	(30 km)	(60 km)	(120 km)	(240 km)	
300 km HRT	(300 km)	(600 km)	(1200 km)	(2400 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
laser designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme Cavalry Missile Vehicle (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 5760 high (+6)
    Front Armor: 48
    Side Armor: 33
    Rear Armor: 24
    Deck Armor: 24
    Belly Armor: 34
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: None
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2 single-figure stands
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: 100 shots of missiles (any combination)
Maintenance Points: 27

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
Missiles only					
Missiles: See the Reformation Coalition TL9 Tac Missiles table (page 132)					H
Sensors:					
30 km radar	(30 km)	(60 km)	(120 km)	(240 km)	
300 km HRT	(300 km)	(600 km)	(1200 km)	(2400 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
laser designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme Grav Tank (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 4860 high (+5)
    Front Armor: 204
    Side Armor: 72
    Rear Armor: 42
    Deck Armor: 42
    Belly Armor: 57
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 2 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: —
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: 200 shots for 7cm gun (any combination), unlimited shots for HMG
Maintenance Points: 71

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
7cm L75 gun-APFSDSDU-9	74 cm: 3 (139+)	148 cm: 2 (129+)	296 cm: 1 (119+)	592 cm: 1 (99+)	F, S
7cm L75 gun-APFSDSCI-10	74 cm: 3 (204+)	148 cm: 2 (194+)	296 cm: 1 (184+)	592 cm: 1 (164+)	F, S
7cm L75 gun-APFSDSSD-12	74 cm: 3 (225+)	148 cm: 2 (215+)	296 cm: 1 (205+)	592 cm: 1 (185+)	F, S
7cm L75 gun-HEAP	55 cm: 3 (77+)	110 cm: 2 (77+)	220 cm: 1 (77+)	440 cm: 1 (77+)	F, S, EP: 5, BR: 2 cm
7cm L75 gun-HE	55 cm: 3 (4+)	110 cm: 2 (4+)	220 cm: 1 (4+)	440 cm: 1 (4+)	F, S, EP: 6, BR: 3 cm
7cm L75 gun-flechette	55 cm: 3* (2)	110 cm: 2* (2)	220 cm: 1* (2)	440 cm: 1* (2)	F, S, DS: 3×11 cm
15mm RC(E) HMG-ball	30 cm: 7 (8)	60 cm: 6 (8)	120 cm: 5 (8)	240 cm: 4 (8)	F, S
Sensors:					
30 km radar	(30 km)	(60 km)	(120 km)	(240 km)	
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme Grav Tank Destroyer (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 4920 high (+5)
    Front Armor: 204
    Side Armor: 42
    Rear Armor: 42
    Deck Armor: 42
    Belly Armor: 50
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 2 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: —
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: 75 shots for 12cm gun (any combination), unlimited shots for HMG
Maintenance Points: 63

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
12cmL75 gun-APFSDSDU-9	78 cm: 3 (331+)	156 cm: 2 (321+)	312 cm: 1 (311+)	624 cm: 1 (291+)	F, S
12cmL75 gun-APFSDSCI-10	78 cm: 3 (491+)	156 cm: 2 (481+)	312 cm: 1 (471+)	624 cm: 1 (451+)	F, S
12cmL75 gun-APFSDSSD-12	78 cm: 3 (545+)	156 cm: 2 (535+)	312 cm: 1 (525+)	624 cm: 1 (505+)	F, S
12cmL75 gun-HEAP-9	58 cm: 3 (137+)	116 cm: 2 (137+)	232 cm: 1 (137+)	464 cm: 1 (137+)	F, S, EP: 9, BR: 4 cm
12cmL75 gun-HE-9	58 cm: 3 (11+)	116 cm: 2 (11+)	232 cm: 1 (11+)	464 cm: 1 (11+)	F, S, EP: 11, BR: 4 cm
12cmL75 gun-flechette-9	58 cm: 3* (2)	116 cm: 2* (2)	232 cm: 1* (2)	464 cm: 1* (2)	F, S, DS: 3 cm×12 cm
15mm RC(E) HMG-ball	30 cm: 7 (8)	60 cm: 6 (8)	120 cm: 5 (8)	240 cm: 4 (8)	F, S
Sensors:					
30 km radar	(30 km)	(60 km)	(120 km)	(240 km)	
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme Grav Sled (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____ .
Movement: 360 low (+2, +3), 4980 high (+5)
    Front Armor: 12
    Side Armor: 6
    Rear Armor: 6
    Deck Armor: 6
    Belly Armor: 6
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 7 stands or 19.5 tonnes
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: None
Maintenance Points: 18

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme Light Utility Sled (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 6660 high (+6)
    Front Armor: 12
    Side Armor: 6
    Rear Armor: 6
    Deck Armor: 6
    Belly Armor: 6
Mass Class: V
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 1 stand plus 1.875 tonnes or 4.5 tonnes
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: None
Maintenance Points: 11

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Oriflamme MRL Sled (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 360 low (+2, +3), 4980 high (+5)
    Front Armor: 12
    Side Armor: 6
    Rear Armor: 6
    Deck Armor: 6
    Belly Armor: 6
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: Indirect Fire Control only
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (5)
Ammunition: 13 single shots (any combination) or one
single salvo, plus autoloader fitted (one full turn to reload)
Maintenance Points: 32

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
Missiles: See the Oriflammen TL9 Laser-Designated MRL "Rockets" table (page 133)				H	
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scope	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
3000 km radio	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	

Fury Assault Lander (TL12)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 320 low (+2,+3), 9180 high (+6)
    Front Armor: 21
    Side Armor: 21
    Rear Armor: 21
    Deck Armor: 21
    Belly Armor: 21
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 3
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS)
Ammunition: Unlimited ammunition for rotary MG
Maintenance Points: 6

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
5mm rotary MG-DS	18 cm: 7 (3)	36 cm: 6 (3)	72 cm: 5 (2)	144 cm: 4 (Nil)	
Sensors:					
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	
1000 AU maser	∞	∞	∞	∞	

"Buster" Weapons Carrier (TL8)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 130 road (+1, +2, +2), 50 cross-country (—, —, +1)
    Front Armor: 1
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: Open
    Belly Armor: 1
Mass Class: III
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: —
Environmental: Unsealed, filtered air-breathing
Electronic Warfare: None
Ammunition: Unlimited shots for any one of weapons below
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
10 cm plasma bazooka	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1 cm
6 cm assault rckt lnchr-HE	20 cm: 1 (2+)	40 cm: 1 (2+)	—	—	EP: 6, BR: 4 cm
6 cm assault rckt lnchr-HEAP	20 cm: 1 (65+)	40 cm: 1 (65+)	—	—	EP: 5, BR: 3 cm
6 cm assault rckt lnchr-WP	20 cm: 1 (Nil)	40 cm: 1 (Nil)	—	—	EP: 3, BR: 2 cm
6 cm assault rckt lnchr-flechette	20 cm: 1* (2)	40 cm: 1* (2)	—	—	DS: 1×5 cm
Squad support laser	30 cm: 5 (Nil)	60 cm: 4 (Nil)	120 cm: 3 (Nil)	240 cm: 2 (Nil)	
Laser sniper weapon	30 cm: 1 (10)	60 cm: 1 (10)	120 cm: 1 (10)	240 cm: 1 (4)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Image converter binoculars	25 cm	50 cm	100 cm	200 cm	
PRIS binoculars	40 cm	80 cm	160 cm	320 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Zhodani *Qiknavra* ("Z-80") Mk1 Grav Tank (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 6000 high (+6)
    Front Armor: 252
    Side Armor: 126
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 126
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: Unlimited shots for laser and VRF gauss guns
Maintenance Points: 68

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
T41-Mj X-ray laser	(300 km):2(300+)	(600 km):1(300+)	(1200 km):1(300+)	(2400 km):1(300+)	F, S
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	S
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	S
Sensors:					
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani *Qiknavra* ("Z-80") Mk2 Grav Tank (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 6000 high (+6)
    Front Armor: 252
    Side Armor: 126
    Rear Armor: 126
    Deck Armor: 126
    Belly Armor: 126
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 35 shots for laser, unlimited shots for both VRF gauss guns
Maintenance Points: 60

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
T41-Mj X-ray laser	(300 km):3(300+)	(600 km):2(300+)	(1200 km):1(300+)	(2400 km):1(300+)	F, S
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	S
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	S
Sensors:					
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani Grav APC (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 9480 high (+6)
    Front Armor: 280
    Side Armor: 140
    Rear Armor: 112
    Deck Armor: 112
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 17 shots of missiles (any combination), unlimited shots for VRF gauss gun
Maintenance Points: 36

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Missiles: See the Zhodani TL14 35kg Tac Missiles table (page 132)					
Sensors:					
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani Point Defense Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 8220 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 125 shots for fusion gun
Maintenance Points: 27

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
20-Mj RF fusion gun	67 cm: 5 (134+)	134 cm: 4 (134+)	268 cm: 3 (67+)	536 cm: 2 (13+)	F, S, EP: 8, BR: 2 cm
Sensors:					
3000 km active EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Appendix C: Zhodani Vehicles

Zhodani EW Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 9420 high (+6)
- Front Armor: 280
- Side Armor: 140
- Rear Armor: 112
- Deck Armor: 112
- Belly Armor: 140

Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: Unlimited shots for VRF gauss gun
Maintenance Points: 38

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
30 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	
ECM:					
300 km EMS jammer	(300 km)	(600 km)	(1200 km)	(2400 km)	Area capable

Zhodani Command Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 9660 high (+6)
- Front Armor: 280
- Side Armor: 140
- Rear Armor: 112
- Deck Armor: 112
- Belly Armor: 140

Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 1
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: Unlimited shots for VRF gauss gun
Maintenance Points: 36

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani Utility Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 10,020 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 7 stands or 17.75 tonnes
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (5)
Ammunition: None
Maintenance Points: 12

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani LMR Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 10,020 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 2
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (5)
Ammunition: None
Maintenance Points: 11

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30,000 km laser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	
30,000 km radio	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Zhodani Meson Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 10,020 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: None
Stabilization: None

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (5)
Ammunition: None
Maintenance Points: 20

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km meson	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Zhodani Light Utility Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 10,020 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 3 stands or 7.75 tonnes
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (5)
Ammunition: None
Maintenance Points: 7

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani Recovery Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 280 low (+2, +3), 3360 high (+5)
    Front Armor: 5
    Side Armor: 4
    Rear Armor: 4
    Deck Armor: 4
    Belly Armor: 4
Mass Class: V (Unloaded), VI (Loaded)
Explosive Damage Modifier: –4 (Unloaded), –5 (Loaded)
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 430 tonnes
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: Unlimited shots for VRF gauss gun
Maintenance Points: 5

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani FDC Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 10,020 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: Fire Direction Center (range: 80 km)
Stabilization: None

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (5)
Ammunition: None
Maintenance Points: 11

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30,000 km laser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	
30,000 km radio	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

Zhodani Gun Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 460 low (+2, +3), 5460 high (+5)
    Front Armor: 280
    Side Armor: 140
    Rear Armor: 112
    Deck Armor: 112
    Belly Armor: 140
Mass Class: VI
Explosive Damage Modifier: –6
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 100 shots for fusion gun
Maintenance Points: 44

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
125-Mj RF fusion gun	168 cm: 3 (335+)	336 cm: 2 (335+)	672 cm: 1 (168+)	1344 cm: 1 (34+)	F, S, EP: 18, BR: 4 cm
Sensors:					
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani Scout Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 21,120 high (+7)
    Front Armor: 300
    Side Armor: 66
    Rear Armor: 66
    Deck Armor: 66
    Belly Armor: 66
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: 17 shots of missiles (any combination), unlimited shots for VRF gauss gun
Maintenance Points: 15

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Missiles: See the Zhodani TL14 35kg Tac Missiles table (page 132)					
Sensors:					
30 km active EMS	(30 km)	(60 km)	(120 km)	(240 km)	
300 km passive EMS	(300 km)	(600 km)	(1200 km)	(2400 km)	
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
laser designator	(300 km)	(600 km)	(1200 km)	(2400 km)	
EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani MRL Drop Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 9660 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: Point Defense FC, ignore 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 3 remote MRL packs
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+1 vs. Radar & HRT), decoys (5)
Ammunition: Unlimited shots for VRF gauss gun
Maintenance Points: 22

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
VRF gauss gun-needle	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	F, S
Remote MRL Packs: See next data card, below					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani Remote MRL Pack (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: None
    Front Armor: 0
    Side Armor: 0
    Rear Armor: 0
    Deck Armor: 0
    Belly Armor: 0
Mass Class: V
Explosive Damage Modifier: –1
Fire Control: Indirect Fire FC
Stabilization: None

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: None
Ammunition: 5 shots of target designated missiles, or may be fired as single ARL salvo
Maintenance Points: 4

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
Target-Designated Artillery Rocket/Missiles: See Zhodani TL14 Remote MRL Packs table (page 133)					
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Zhodani Nuclear Damper Sled (TL14)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 500 low (+3, +4), 10,020 high (+6)
    Front Armor: 56
    Side Armor: 28
    Rear Armor: 28
    Deck Armor: 28
    Belly Armor: 28
Mass Class: VI
Explosive Damage Modifier: –5
Fire Control: Point Defense FC, ignores 5 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Sealed, nonair-breathing
Electronic Warfare: EMM (+2 vs. Radar & HRT, +1 vs. Passive and Active EMS), decoys (5)
Ammunition: Unlimited shots for nuclear damper
Maintenance Points: 19

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
3000 km nuclear damper	(3000 km) 1	(6000 km) 1	(12,000 km) 1	(24,000 km) 1	F, S
Sensors:					
3000 km active EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
3000 km passive EMS	(3000 km)	(6000 km)	(12,000 km)	(24,000 km)	
WSV goggles	40 cm	80 cm	160 cm	320 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
3 km maser	300 cm	600 cm	1200 cm	2400 cm	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	
30,000 km maser	(30,000 km)	(60,000 km)	(120,000 km)	(240,000 km)	

"Pathie" Armored Car (TL5)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 80 road (—, +1, +2), 30 cross-country (—, —, —)
  Front Armor: 6
  Side Armor: 4
  Rear Armor: 4
  Deck Armor: 4
  Belly Armor: 4
Mass Class: V
Explosive Damage Modifier: –5
Fire Control: None
Stabilization: None

Cargo Capacity: None
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 14

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
7mm MMG-ball	7 cm: 5 (2)	14 cm: 4 (2)	28 cm: 3 (Nil)	56 cm: 2 (Nil)	
7mm MMG-ball	7 cm: 5 (2)	14 cm: 4 (2)	28 cm: 3 (Nil)	56 cm: 2 (Nil)	
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Heavy Cargo Truck (TL5)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 50 road (—, —, +1), 10 cross-country (—, —, —)
  Front Armor: 1
  Side Armor: 1
  Rear Armor: 1
  Deck Armor: open
  Belly Armor: 1
Mass Class: III
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 4.5 tonnes
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 5

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
None					

Medium Truck (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 110 road (—, +1, +2), 50 cross-country (—, —, +1)
  Front Armor: 1
  Side Armor: 1
  Rear Armor: 1
  Deck Armor: open
  Belly Armor: 1
Mass Class: IV
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 3 stands or 5 tonnes
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 5

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Self-Propelled Howitzer (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 50 road (—, —, +1), 40 cross-country (—, —, +1)
    Front Armor: 11
    Side Armor: 7
    Rear Armor: 3
    Deck Armor: open
    Belly Armor: 3
Mass Class: VI
Explosive Damage Modifier: –1
Fire Control: Ignores 1 Diff Mod, plus Indirect Fire Control
Stabilization: None

Cargo Capacity: None
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: 50 shots for 12cm gun (any variety) plus unlimited shots for HMG
Maintenance Points: 26

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
12cm L45 gun-HEAP	33 cm: 1 (65+)	66 cm: 1 (65+)	132 cm: 1 (65+)	264 cm: 1 (65+)	F, S, H, EP:7, BR: 3 cm
12cm L45 gun-HE	33 cm: 1 (11+)	66 cm: 1 (11+)	132 cm: 1 (11+)	264 cm: 1 (11+)	F, S, H, EP:8, BR: 3 cm
12cm L45 gun-chem	33 cm: 1 (8+)	66 cm: 1 (8+)	132 cm: 1 (8+)	264 cm: 1 (8+)	F, S, H, EP:3, BR: 2 cm
12cm L45 gun-flechette	33 cm: 1* (2)	66 cm: 1* (2)	132 cm: 1* (2)	264 cm: 1* (2)	F, S, H, DS: 2×6 cm
13mm HMG-ball	16 cm: 5 (4)	32 cm: 4 (4)	64 cm: 3 (2)	128 cm: 2 (2)	
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Medium Tank (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 50 road (—, —, +1), 40 cross-country (—, —, +1)
    Front Armor: 32
    Side Armor: 13
    Rear Armor: 3
    Deck Armor: 3
    Belly Armor: 3
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: Ignores 1 Diff Mod
Stabilization: Basic (do not subtract 1 from ROF for a *cautious advance* order)

Cargo Capacity: None
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: 30 shots for 8cm gun (any variety) plus unlimited shots for both LMGs
Maintenance Points: 33

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
8cm L60 gun-APDS	44 cm: 1 (56+)	88 cm: 1 (49+)	176 cm: 1 (42+)	352 cm: 1 (27+)	F, S
8cm L60 gun-HEAP	33 cm: 1 (41+)	66 cm: 1 (41+)	132 cm: 1 (41+)	264 cm: 1 (41+)	F, S, EP: 4, BR: 2 cm
8cm L60 gun-HE	33 cm: 1 (5+)	66 cm: 1 (5+)	132 cm: 1 (5+)	264 cm: 1 (5+)	F, S, EP: 6, BR: 2 cm
7mm LMG-ball	10 cm: 5 (2)	20 cm: 4 (2)	40 cm: 3 (Nil)	80 cm: 2 (Nil)	F, S
7mm LMG-ball	10 cm: 5 (2)	20 cm: 4 (2)	40 cm: 3 (Nil)	80 cm: 2 (Nil)	H
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Tank Destroyer (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 60 road (—, +1, +1), 50 cross-country (—, —, +1)
    Front Armor: 26
    Side Armor: 7
    Rear Armor: 3
    Deck Armor: 3
    Belly Armor: 3
Mass Class: VI
Explosive Damage Modifier: −4
Fire Control: Ignores 1 Diff Mod
Stabilization: Basic (do not subtract 1 from ROF for a *cautious advance* order)

Cargo Capacity: None
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: 37 shots for 10cm gun (any variety) plus unlimited shots for LMG
Maintenance Points: 30

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
10cm L75 gun-APDS	53 cm: 1 (83+)	106 cm: 1 (73+)	212 cm: 1 (63+)	424 cm: 1 (43+)	F, S
10cm L75 gun-HEAP	39 cm: 1 (53+)	78 cm: 1 (53+)	156 cm: 1 (53+)	312 cm: 1 (53+)	F, S, EP: 6, BR: 3 cm
10cm L75 gun-HE	39 cm: 1 (8+)	78 cm: 1 (8+)	156 cm: 1 (8+)	312 cm: 1 (8+)	F, S, EP: 7, BR: 3 cm
7mm LMG-ball	10 cm: 5 (2)	20 cm: 4 (2)	40 cm: 3 (Nil)	80 cm: 2 (Nil)	F, S
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

LRV-51 Pandina (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 60 road (—, +1, +1), 40 cross-country (—, —, +1)
    Front Armor: 9
    Side Armor: 4
    Rear Armor: 3
    Deck Armor: 3
    Belly Armor: 3
Mass Class: V
Explosive Damage Modifier: −4
Fire Control: None
Stabilization: Basic (do not subtract 1 from ROF for a *cautious advance* order)

Cargo Capacity: None
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: 4 shots 3cm, unlimited shots for LMGs
Maintenance Points: 12

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
3cm L70 gun-APDS	47 cm: 5 (8+)	94 cm: 4 (7+)	188 cm: 3 (6+)	376 cm: 2 (4+)	S
3cm L70 gun-APFSDSDU (8)	47 cm: 5 (14+)	94 cm: 4 (12+)	188 cm: 3 (10+)	376 cm: 2 (7+)	S
3cm L70 gun-APFSDSCI (10)	47 cm: 5 (21+)	94 cm: 4 (18+)	188 cm: 3 (15+)	376 cm: 2 (10+)	S
3cm L70 gun-APFSDSSD (12)	47 cm: 5 (23+)	94 cm: 4 (20+)	188 cm: 3 (17+)	376 cm: 2 (11+)	S
3cm L70 gun-HE	35 cm: 5 (Nil)	70 cm: 4 (Nil)	140 cm: 3 (Nil)	280 cm: 2 (Nil)	S, EP: 2, BR: 1 cm
3cm L70 gun-HEAP	35 cm: 5 (11+)	70 cm: 4 (11+)	140 cm: 3 (11+)	280 cm: 2 (11+)	S, EP: 2, BR: 1 cm
3cm L70 gun-chem	35 cm: 5 (Nil)	70 cm: 4 (Nil)	140 cm: 3 (Nil)	280 cm: 2 (Nil)	S, EP: 3, BR: 1 cm
3cm L70 gun-flechette	35 cm: 5* (2)	70 cm: 4* (2)	140 cm: 3* (2)	280 cm: 2* (2)	S, DS: 2×9 cm
7mm LMG-ball	15 cm: 5 (2)	30 cm: 4 (2)	60 cm: 3 (Nil)	120 cm: 2 (Nil)	S
7mm LMG-ball	15 cm: 5 (2)	30 cm: 4 (2)	60 cm: 3 (Nil)	120 cm: 2 (Nil)	
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

APC (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 50 road (—, —, +1), 40 cross-country (—, —, +1)
    Front Armor: 26
    Side Armor: 7
    Rear Armor: 3
    Deck Armor: 3
    Belly Armor: 3
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 5
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: Unlimited shots for HMG
Maintenance Points: 27

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
13mm HMG-ball	16 cm: 5 (4)	32 cm: 4 (4)	64 cm: 3 (2)	128 cm: 2 (2)	
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Command Track (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 50 road (—, —, +1), 40 cross-country (—, —, +1)
    Front Armor: 26
    Side Armor: 7
    Rear Armor: 3
    Deck Armor: 3
    Belly Armor: 3
Mass Class: VI
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 1
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: Unlimited shots for HMG
Maintenance Points: 27

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
13mm HMG-ball	16 cm: 5 (4)	32 cm: 4 (4)	64 cm: 3 (2)	128 cm: 2 (2)	
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Light Truck (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 160 road (+1, +2, +3), 60 cross-country (—, +1, +1)
    Front Armor: 1
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: open
    Belly Armor: 1
Mass Class: III
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 3 single-figure stands
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 2

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Medium Truck (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 110 road (—, +1, +2), 50 cross-country (—, —, +1)
    Front Armor: 1
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: open
    Belly Armor: 1
Mass Class: IV
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 3 stands or 5 tonnes
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 5

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Heavy Truck (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 120 road (+1, +2, +2), 50 cross-country (—, —, +1)
    Front Armor: 1
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: open
    Belly Armor: 1
Mass Class: V
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 8 stands or 12.5 tonnes
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 10

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Ground Car (TL6)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 150 road (+1, +2, +2), 30 cross-country (—, —, —)
    Front Armor: 1
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: open
    Belly Armor: 1
Mass Class: III
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 3 single-figure stands
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 2

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
None					

Tracked ATV (TL7)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 50 road (—, —, +1), 40 cross-country (—, —, +1)
  Front Armor: 2
  Side Armor: 2
  Rear Armor: 2
  Deck Armor: 2
  Belly Armor: 2
Mass Class: V
Explosive Damage Modifier: –3
Fire Control: None
Stabilization: None

Cargo Capacity: 1 stand plus 1.75 tonnes
Environmental: Sealed, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 9

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
0.3 km HRT	30 cm	60 cm	120 cm	240 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Charina Wheeled APC (TL7)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 90 road (—, +1, +2), 40 cross-country (—, —, +1)
  Front Armor: 5
  Side Armor: 3
  Rear Armor: 3
  Deck Armor: 3
  Belly Armor: 3
Mass Class: III
Explosive Damage Modifier: –4
Fire Control: None
Stabilization: None

Cargo Capacity: 1
Environmental: Unsealed, air-breathing
Electronic Warfare: None
Ammunition: Unlimited shots for LMG
Maintenance Points: 4

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
7mm LMG-ball	15 cm: 5 (2)	30 cm: 4 (2)	60 cm: 3 (Nil)	120 cm: 2 (Nil)	
Sensors:					
Headlights	3 cm	6 cm	12 cm	24 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Range Truck (TL8)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 140 road (+1, +2, +2), 60 cross-country (—, +1, +1)
  Front Armor: 1
  Side Armor: 1
  Rear Armor: 1
  Deck Armor: open
  Belly Armor: 1
Mass Class: III
Explosive Damage Modifier: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 1 single-figure stand plus 1 tonne
Environmental: Unsealed, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
None					

Wheeled ATV (TL8)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 80 road (—, +1, +2), 40 cross-country (—, —, +1)
Front Armor: 2
Side Armor: 2
Rear Armor: 2
Deck Armor: 2
Belly Armor: 2
Mass Class: VI
Explosive Damage Modifier: –3
Fire Control: None
Stabilization: None

Cargo Capacity: 1 stand plus 3 tonnes
Environmental: Sealed, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 11

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
0.3 km HRT	30 cm	60 cm	120 cm	240 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Voltigeur APC (TL8)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 110 road (—, +1, +2), 90 cross-country (—, +1, +2)
Front Armor: 72
Side Armor: 48
Rear Armor: 24
Deck Armor: 48
Belly Armor: 24
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: None
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 6 stands plus 1.4 tonnes
Environmental: Overpressure, air-breathing
Electronic Warfare: decoys (5)
Ammunition: Unlimited shots for MG
Maintenance Points: 56

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
5mm rotary MG-ball	15 cm: 7 (3)	30 cm: 6 (3)	60 cm: 5 (Nil)	120 cm: 4 (Nil)	S
Sensors:					
3 km HRT	300 cm	600 cm	1200 cm	2400 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Lancer Missile Carrier (TL8)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 100 road (—, +1, +2), 80 cross-country (—, +1, +2)
Front Armor: 72
Side Armor: 48
Rear Armor: 24
Deck Armor: 48
Belly Armor: 24
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: None
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Overpressure, air-breathing
Electronic Warfare: decoys (5)
Ammunition: 15 shots for missiles (any combination), unlimited shots for MG
Maintenance Points: 62

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
5mm rotary MG-ball	15 cm: 7 (3)	30 cm: 6 (3)	60 cm: 5 (Nil)	120 cm: 4 (Nil)	S
Missiles: See TL8 Lancer Tac Missiles table (page 133)					
Sensors:					
3 km HRT	300 cm	600 cm	1200 cm	2400 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
laser designator	(30 km)	(60 km)	(120 km)	(240 km)	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Prairie Fire Fast Tank (TL8)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 130 road (+1, +2, +2), 100 cross-country (—, +1, +2)
   Front Armor: 192
   Side Armor: 48
   Rear Armor: 24
   Deck Armor: 36
   Belly Armor: 24
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: Ignores 2 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Overpressure, air-breathing
Electronic Warfare: decoys (5)
Ammunition: 25 shots of 13cm (any combination), unlimited shots for both MGs
Maintenance Points: 62

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
13cm L60 gun-APFSDSDU	67 cm: 1 (207+)	134 cm: 1 (197+)	268 cm: 1 (187+)	536 cm: 1 (167+)	F, S
13cm L60 gun-HEAP	51 cm: 1 (123+)	102 cm: 1 (123+)	204 cm: 1 (123+)	408 cm: 1 (123+)	F, S, EP: 9, BR: 3 cm
13cm L60 gun-HE	51 cm: 1 (13+)	102 cm: 1 (13+)	204 cm: 1 (13+)	408 cm: 1 (13+)	F, S, EP: 11, BR: 4 cm
13cm L60 gun-flechette	51 cm: 1* (2)	102 cm: 1* (2)	204 cm: 1* (2)	408 cm: 1* (2)	F, S, DS: 3×10 cm
7mm rotary MG-ball	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	F, S
5mm rotary MG-ball	15 cm: 7 (3)	30 cm: 6 (3)	60 cm: 5 (Nil)	120 cm: 4 (Nil)	F, S
Sensors:					
3 km HRT	300 cm	600 cm	1200 cm	2400 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km radio	(30 km)	(60 km)	(120 km)	(240 km)	

Ground Tank (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 120 road (+1, +2, +2), 100 cross-country (—, +1, +2)
   Front Armor: 204
   Side Armor: 54
   Rear Armor: 30
   Deck Armor: 54
   Belly Armor: 30
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: Ignores 2 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: None
Environmental: Overpressure, air-breathing
Electronic Warfare: decoys (5)
Ammunition: 30 shots of 12cm (any combination of above), unlimited shots for 7mm MG
Maintenance Points: 70

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
12cm L60 gun-APFSDSDU	67 cm: 3 (289+)	134 cm: 2 (279+)	268 cm: 1 (269+)	536 cm: 1 (249+)	F, S
12cm L60 gun-HEAP	50 cm: 3 (137+)	100 cm: 2 (137+)	200 cm: 1 (137+)	400 cm: 1 (137+)	F, S, EP: 9, BR: 4 cm
12cm L60 gun-HE	50 cm: 3 (11+)	100 cm: 2 (11+)	200 cm: 1 (11+)	400 cm: 1 (11+)	F, S, EP: 11, BR: 4 cm
12cm L60 gun-flechette	50 cm: 3* (2)	100 cm: 2* (2)	200 cm: 1* (2)	400 cm: 1* (2)	F, S, DS: 3×10 cm
7mm rotary MG-ball	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	F, S
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Troop Transport Helicopter (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 220 low (+1,+2), 9000 high (+6)
    Front Armor: 0
    Side Armor: 0
    Rear Armor: 0
    Deck Armor: 0
    Belly Armor: 0
Mass Class: IV
Explosive Damage Modifier: 0
Fire Control: None
Stabilization: None

Cargo Capacity: 3
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (4)
Ammunition: Unlimited shots for LMGs
Maintenance Points: 4

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
5mm LMG-ball	7 cm: 5 (3)	14 cm: 4 (3)	28 cm: 3 (Nil)	56 cm: 2 (Nil)	
Sensors:					
Image intens scopes	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Abomination Infantry Assault Vehicle (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 130 road (+1, +2, +2), 100 cross-country (—, +1, +2)
    Front Armor: 288
    Side Armor: 192
    Rear Armor: 120
    Deck Armor: 192
    Belly Armor: 120
Mass Class: VI
Explosive Damage Modifier: –7
Fire Control: Ignores 2 diff mods, TL9 Indirect Fire Control
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2
Environmental: Sealed, nonair-breathing
Electronic Warfare: None
Ammunition: 60 shots of 12cm (any combination)
Maintenance Points: 113

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
12cm L20 gun-HEAP	28 cm: 5 (137+)	56 cm: 4 (137+)	112 cm: 3 (137+)	224 cm: 2 (137+)	F, S, EP: 9, BR: 4 cm, IFR: 11 km
12cm L20 gun-HE	28 cm: 5 (11+)	56 cm: 4 (11+)	112 cm: 3 (11+)	224 cm: 2 (11+)	F, S, EP: 11, BR: 4 cm, IFR: 11 km
12cm L20 gun-flechette	28 cm: 5* (2)	56 cm: 4* (2)	112 cm: 3* (2)	224 cm: 2* (2)	F, S, DS: 2×6 cm
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Ground APC (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 140 road (+1, +2, +2), 110 cross-country (—, +1, +2)
    Front Armor: 27
    Side Armor: 18
    Rear Armor: 18
    Deck Armor: open
    Belly Armor: 18
Mass Class: VI
Explosive Damage Modifier: –1
Fire Control: Ignores 2 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2 stands plus 1.3 tonnes
Environmental: Overpressure, air-breathing
Electronic Warfare: decoys (5)
Ammunition: 15 shots of 3cm (any combination of above)
Maintenance Points: 22

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
3cm L60 gun-APFSDSDU	60 cm: 4 (21+)	120 cm: 3 (18+)	240 cm: 2 (15+)	480 cm: 1 (8+)	F, S
3cm L60 gun-WP	45 cm: 4 (137+)	90 cm: 3 (137+)	180 cm: 2 (137+)	360 cm: 1 (137+)	F, S, EP: 3, BR: 1 cm
Sensors:					
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Helicopter Gunship (TL9)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 220 low (+1,+2), 9060 high (+6)
    Front Armor: 0
    Side Armor: 0
    Rear Armor: 0
    Deck Armor: 0
    Belly Armor: 0
Mass Class: IV
Explosive Damage Modifier: 0
Fire Control: None
Stabilization: None

Cargo Capacity: None
Environmental: Sealed, filtered air-breathing
Electronic Warfare: decoys (4)
Ammunition: 5 shots of homing missiles and 5 shots of laser designated missiles plus unlimited shots for 7mm MG
Maintenance Points: 4

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
7mm rotary MG-ball	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	
Missiles: See the Common TL9 Manportable Tac Missiles table (page 133)					
Sensors:					
3 km radar	300 cm	600 cm	1200 cm	2400 cm	Designator capable
30 km HRT	(30 km)	(60 km)	(120 km)	(240 km)	
Image intens scopes	25 cm	50 cm	100 cm	200 cm	
Eyeballs	100 cm	200 cm	400 cm	800 cm	
laser designator	(30 km)	(60 km)	(120 km)	(240 km)	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Open Air Raft (TL10)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 120 low (+1,+2), 3360 high (+5)
    Front Armor: 2
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: open
    Belly Armor: 1
Mass Class: III
Explosive Damage Modifer: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 1
Environmental: Unsealed, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

G-Carrier (TL11)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 420 low (+2,+3), 5280 high (+5)
- Front Armor: 16
- Side Armor: 16
- Rear Armor: 8
- Deck Armor: 8
- Belly Armor: 8

Mass Class: V
Explosive Damage Modifier: –3
Fire Control: Ignores 3 diff mods
Stabilization: Advanced (treat cautious and rapid advance as *no order* for ROF and sequence of fire purposes)

Cargo Capacity: 2
Environmental: Sealed, filtered air-breathing
Electronic Warfare: None
Ammunition: 50 shots for fusion gun, unlimited shots for LMG
Maintenance Points: 6

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
2-Mj RF plasma gun	14 cm: 2 (42+)	28 cm: 1 (42+)	56 cm: 1 (21+)	112 cm: 1 (4+)	F, S, EP: 3, BR: 1 cm
7.5mm LMG-ball	30 cm: 5 (4)	60 cm: 4 (4)	120 cm: 3 (2)	240 cm: 2 (2)	F, S
Sensors:					
3 km passive EMS	300 cm	600 cm	1200 cm	2400 cm	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Active EMS designator	300 cm	600 cm	1200 cm	2400 cm	
Communications:					
30 km laser	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Enclosed Air Raft (TL12)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 440 low (+2,+3), 5280 high (+5)
- Front Armor: 2
- Side Armor: 1
- Rear Armor: 1
- Deck Armor: 1
- Belly Armor: 1

Mass Class: III
Explosive Damage Modifer: –2
Fire Control: None
Stabilization: None

Cargo Capacity: 3 single-figure stands
Environmental: Sealed, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km laser	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Convertible Air Raft (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Note: Values below separated by a slash are in enclosed/open configurations
Movement: 520 low (+3,+4), 6660 high enclosed configuration (+6), 2520 high open configuration (+4)
- Front Armor: 8/8
- Side Armor: 4/4
- Rear Armor: 4/4
- Deck Armor: 4/open
- Belly Armor: 4/4

Mass Class: III
Explosive Damage Modifier: –2/–1
Fire Control: None
Stabilization: None

Cargo Capacity: 1
Environmental: Sealed, filtered air-breathing/open, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
30 km passive EMS	(30 km)	(60 km)	(120 km)	(240 km)	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
30 km maser	(30 km)	(60 km)	(120 km)	(240 km)	
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Speeder (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 520 low (+3,+4), 10,020 high (+6)
    Front Armor: 2
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: 1
    Belly Armor: 1
Mass Class: III
Explosive Damage Modifer: –2
Fire Control: None
Stabilization: None

Cargo Capacity: 3 single-figure stands
Environmental: Sealed, filtered air-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
3 km passive EMS	300 cm	600 cm	1200 cm	2400 cm	DF capable
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
300 km radio	(300 km)	(600 km)	(1200 km)	(2400 km)	

Grav Bike (TL15)

Troop Quality: _____ Morale: _____ Initiative: _____
Movement: 120 low (+1,+2), 3360 high (+5)
    Front Armor: 2
    Side Armor: 1
    Rear Armor: 1
    Deck Armor: open
    Belly Armor: 1
Mass Class: I
Explosive Damage Modifer: –1
Fire Control: None
Stabilization: None

Cargo Capacity: 1 single-figure stand
Environmental: Unsealed, nonair-breathing
Electronic Warfare: None
Ammunition: None
Maintenance Points: 1

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes
None					
Sensors:					
Eyeballs	100 cm	200 cm	400 cm	800 cm	
Communications:					
None					

Appendix F: Missiles

Imperial TL15 95kg Heavy Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
0.1 kt homing msl	(20 km) 1 (notes)	(40 km) 1 (notes)	(70 km) 1 (notes)	—	A4, DR: 3 cm, EP 18, BR: 10 cm
0.1 kt homing msl	(40 km) 1 (notes)	(70 km) 1 (notes)	—	—	A6, DR: 3 cm, EP 18, BR: 10 cm
0.1 kt homing msl	(40 km) 1 (notes)	(80 km) 1 (notes)	(133 km) 1 (notes)	—	A10, DR: 3 cm, EP 18, BR: 10 cm
0.1 kt target desig msl	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, A4, DR: 3 cm, EP 18, BR: 10 cm, 70 km
0.1 kt target desig msl	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, A8, DR: 3 cm, EP 18, BR: 10 cm, 133 km
0.1 kt command guided msl	(70 km) 1 (notes)	—	—	—	A4, DR: 3 cm, EP 18, BR: 10 cm
0.5 kt homing msl	(20 km) 1 (notes)	(40 km) 1 (notes)	(65 km) 1 (notes)	—	A4, DR: 3 cm, EP 18, BR: 15 cm
0.5 kt homing msl	(40 km) 1 (notes)	(65 km) 1 (notes)	—	—	A6, DR: 3 cm, EP 18, BR: 15 cm
0.5 kt homing msl	(40 km) 1 (notes)	(80 km) 1 (notes)	(124 km) 1 (notes)	—	A10, DR: 3 cm, EP 18, BR: 15 cm
0.5 kt target desig msl	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, A4, DR: 3 cm, EP 18, BR: 15 cm, 65 km
0.5 kt target desig msl	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, A8, DR: 3 cm, EP 18, BR: 15 cm, 124 km
0.5 kt command guided msl	(65 km) 1 (notes)	—	—	—	A4, DR: 3 cm, EP 18, BR: 15 cm
1 kt homing msl	(20 km) 1 (notes)	(40 km) 1 (notes)	(62 km) 1 (notes)	—	A4, DR: 3 cm, EP 18, BR: 21 cm
1 kt homing msl	(40 km) 1 (notes)	(62 km) 1 (notes)	—	—	A6, DR: 3 cm, EP 18, BR: 21 cm
1 kt homing msl	(40 km) 1 (notes)	(80 km) 1 (notes)	(118 km) 1 (notes)	—	A10, DR: 3 cm, EP 18, BR: 21 cm
1 kt target desig msl	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, A4, DR: 3 cm, EP 18, BR: 21 cm, 62 km
1 kt target desig msl	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, A8, DR: 3 cm, EP 18, BR: 21 cm, 118 km
1 kt command guided msl	(62 km) 1 (notes)	—	—	—	A4, DR: 3 cm, EP 18, BR: 21 cm

Imperial TL15 30kg Light "Fire-and-Forget" Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
30kg F&F tgt desig HE	— 1 (5+)	— 1 (5+)	— 1 (5+)	— 1 (5+)	ED, A8, EP: 8, BR: 5 cm, 54 km
30kg F&F homing HE	(20 km) 1 (5+)	(40 km) 1 (5+)	(54 km) 1 (5+)	—	A10, EP: 8, BR: 5 cm
30kg F&F tgt desig flechette	— 1* (2)	— 1* (2)	— 1* (2)	— 1* (2)	ED, A8, DS: 15×60 cm, 54 km
30 kg F&F homing flechette	(20 km) 1* (2)	(40 km) 1* (2)	(54 km) 1* (2)	—	A10, DS: 15×60 cm
30kg F&F tgt desig HEAP	— 1 (149+)	— 1 (149+)	— 1 (149+)	— 1 (149+)	ED, A8, EP: 11, BR: 6 cm, 25 km
30kg F&F homing HEAP	(20 km) 1 (149+)	(25 km) 1 (149+)	—	—	A10, EP: 11, BR: 6 cm

Reformation Coalition TL12 Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Skybird tgt desig msl	— 1 (26+)	— 1 (26+)	— 1 (26+)	— 1 (26+)	ED, A10, EP: 18, BR: 12 cm, 382 km
Skybird homing msl	(40 km) 1 (26+)	(80 km) 1 (26+)	(160 km) 1 (26+)	(320 km) 1 (26+)	A10, EP: 18, BR: 12 cm
Firebird tgt desig msl	— 1 (137+)	— 1 (137+)	— 1 (137+)	— 1 (137+)	ED, A8, EP: 10, BR: 5 cm, 32 km
Firebird homing msl	(32 km) 1 (137+)	—	—	—	A8, EP: 10, BR: 5 cm
Thunderbird tgt desig msl	— 1 (281+)	— 1 (281+)	— 1 (281+)	— 1 (281+)	ED, A8, EP: 18, BR: 10 cm, 36 km
Thunderbird homing msl	(36 km) 1 (281+)	—	—	—	A8, EP: 18, BR: 10 cm
Songbird tgt desig msl	— 1 (26+)	— 1 (26+)	— 1 (26+)	— 1 (26+)	ED, A10, EP: 18, BR: 12 cm, 440 km
Songbird homing msl	(40 km) 1 (26+)	(80 km) 1 (26+)	(160 km) 1 (26+)	(320 km) 1 (26+)	A10, EP: 18, BR: 12 cm
Jailbird tgt desig msl	— 1 (38+)	— 1 (38+)	— 1 (38+)	— 1 (38+)	ED, A10, EP: 18, BR: 16 cm, 62 km
Jailbird homing msl	(40 km) 1 (38+)	(62 km) 1 (38+)	—	—	A10, EP: 18, BR: 16 cm
Butcherbird tgt desig msl	— 1* (2)	— 1* (2)	— 1* (2)	— 1* (2)	ED, A8, DS: 6×28 cm, 23 km
Butcherbird	(20 km) 1* (2)	(23 km) 1* (2)	—	—	A8, DS: 6×28 cm

Reformation Coalition TL9 Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Nail tgt desig msl HE	— 1 (8+)	— 1 (8+)	— 1 (8+)	— 1 (8+)	LD, A5, EP: 9, BR: 5 cm, R: 600 cm
Nail tgt desig msl HEAP	— 1 (113+)	— 1 (113+)	— 1 (113+)	— 1 (113+)	LD, A5, EP: 7, BR: 4 cm, R: 600 cm
Nail tgt desig msl WP	— 1 (Nil)	— 1 (Nil)	— 1 (Nil)	— 1 (Nil)	LD, A5, EP: 3, BR: 4 cm, R: 600 cm
Nail SAM homing msl HE	600 cm: 1 (8+)	—	—	—	LD, A5, EP: 9, BR: 5 cm
Nail SAM homing msl HEAP	600 cm: 1 (113+)	—	—	—	LD, A5, EP: 7, BR: 4 cm
Nail ARM homing msl	600 cm: 1 (8+)	—	—	—	LD, A5, EP: 9, BR: 5 cm
Lyrebird tgt desig msl HE	— 1 (8+)	— 1 (8+)	— 1 (8+)	— 1 (8+)	LD, A3, EP: 9, BR: 5 cm, R: 24 km, plunge
Lyrebird tgt desig msl HEAP	— 1 (113+)	— 1 (113+)	— 1 (113+)	— 1 (113+)	LD, A3, EP: 7, BR: 4 cm, R: 24 km, plunge
Lyrebird tgt desig msl WP	— 1 (Nil)	— 1 (Nil)	— 1 (Nil)	— 1 (Nil)	LD, A3, EP: 3, BR: 4 cm, R: 24 km, plunge
Lyrebird tgt desig msl Submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, A3, EP: 16, BR: 3 cm, R: 24 km, plunge
Lyrebird tgt desig msl DP Submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, A3, EP: 16, BR: 3 cm, R: 24 km, plunge
Lyrebird tgt desig msl Hmg Submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, A3, EP: 20/10, BR: 2 cm, R: 24 km, plunging

Zhodani TL14 35kg Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Tgt desig HE	— 1 (5+)	— 1 (5+)	— 1 (5+)	— 1 (5+)	ED, A8, EP: 8, BR: 5 cm, R: 55 km
Tgt desig flechette	— 1 (2)	— 1 (2)	— 1 (2)	— 1 (2)	ED, A8, DS: 15×60 cm, R: 55 km
Homing HE	(20 km) 1 (5+)	(40 km) 1 (5+)	(55km) 1 (5+)	—	A10, EP: 8, BR: 5 cm
Homing flechette	(20 km) 1 (2)	(40 km) 1 (2)	(55km) 1 (2)	—	A10, DS: 15×60 cm
Homing ARM HE	(20 km) 1 (5+)	(40 km) 1 (5+)	(55km) 1 (5+)	—	A10, EP: 8, BR: 5 cm
Homing ARM flechette	(20 km) 1 (2)	(40 km) 1 (2)	(55km) 1 (2)	—	A10, DS: 15×60 cm
Tgt desig 0.1 kt	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, A8, DR: 3 cm, EP: 18, BR: 10 cm, R: 55 km
Homing 0.1 kt	(20 km) 1 (notes)	(40 km) 1 (notes)	(55km) 1 (notes)	—	A10, DR: 3 cm, EP: 18, BR: 10 cm
Homing ARM 0.1 kt	(20 km) 1 (notes)	(40 km) 1 (notes)	(55km) 1 (notes)	—	A10, DR: 3 cm, EP: 18, BR: 10 cm

Imperial TL15 EMS-Designated MRL "Rockets"

Missiles:	Short	Medium	Long	Extreme	Notes
HE "rocket"	— 10 (38+)	— 10 (38+)	— 10 (38+)	— 10 (38+)	ED, A9, EP: 18, BR: 16 cm, R: 650 km
HEAP "rocket"	— 10 (353+)	— 10 (353+)	— 10 (353+)	— 10 (353+)	ED, A9, EP: 18, BR: 13 cm, R: 650 km
Submunition "rocket"	— 10 (notes)	— 10 (notes)	— 10 (notes)	— 10 (notes)	ED, A9, EP: 16, BR: 23, R: 650 km
DP submunition "rocket"	— 10 (notes)	— 10 (notes)	— 10 (notes)	— 10 (notes)	ED, A9, EP: 16, BR: 23, R: 650 km
Homing submunition "rocket"	— 10 (notes)	— 10 (notes)	— 10 (notes)	— 10 (notes)	ED, A9, EP: 20/10, BR: 12, R: 650 km
ARL salvo, HE	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 18, BR: 72 cm, R: 650 km
ARL salvo, HEAP	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 18, BR: 58 cm, R: 650 km
ARL salvo, submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 16, BR: 103, R: 650 km

Missiles	Short	Medium	Long	Extreme	Notes
ARL salvo, DP submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 16, BR: 103, R: 650 km
ARL salvo, homing submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 20/10, BR: 54, R: 650 km

Oriflammen TL9 Laser-Designated MRL "Rockets"

Missiles:	Short	Medium	Long	Extreme	Notes
HE "rocket"	— 13 (38+)	— 13 (38+)	— 13 (38+)	— 13 (38+)	LD, A9, EP: 18, BR: 14 cm, R: 650 km
HEAP "rocket"	— 13 (353+)	— 13 (353+)	— 13 (353+)	— 13 (353+)	LD, A9, EP: 18, BR: 11 cm, R: 650 km
Submunition "rocket"	— 13 (notes)	— 13 (notes)	— 13 (notes)	— 13 (notes)	LD, A9, EP: 16, BR: 23, R: 650 km
DP submunition "rocket"	— 13 (notes)	— 13 (notes)	— 13 (notes)	— 13 (notes)	LD, A9, EP: 16, BR: 23, R: 650 km
Homing submunition "rocket"	— 13 (notes)	— 13 (notes)	— 13 (notes)	— 13 (notes)	LD, A9, EP: 20/10, BR: 12, R: 650 km
ARL salvo, HE	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 18, BR: 73 cm, R: 650 km
ARL salvo, HEAP	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 18, BR: 57 cm, R: 650 km
ARL salvo, submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 16, BR: 120, R: 650 km
ARL salvo, DP submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 16, BR: 120, R: 650 km
ARL salvo, homing submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 20/10, BR: 62, R: 650 km

Zhodani TL14 Remote MRL Packs

Missiles:	Short	Medium	Long	Extreme	Notes
HE "rocket"	— 5 (38+)	— 5 (38+)	— 5 (38+)	— 5 (38+)	ED, A9, EP: 18, BR: 16 cm, R: 650 km
HEAP "rocket"	— 5 (353+)	— 5 (353+)	— 5 (353+)	— 5 (353+)	ED, A9, EP: 18, BR: 13 cm, R: 650 km
Submunition "rocket"	— 5 (notes)	— 5 (notes)	— 5 (notes)	— 5 (notes)	ED, A9, EP: 16, BR: 23, R: 650 km
DP submunition "rocket"	— 5 (notes)	— 5 (notes)	— 5 (notes)	— 5 (notes)	ED, A9, EP: 16, BR: 23, R: 650 km
Homing submunition "rocket"	— 5 (notes)	— 5 (notes)	— 5 (notes)	— 5 (notes)	ED, A9, EP: 20/10, BR: 12, R: 650 km
ARL salvo, HE	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 18, BR: 51 cm, R: 650 km
ARL salvo, HEAP	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 18, BR: 41 cm, R: 650 km
ARL salvo, submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 16, BR: 73, R: 650 km
ARL salvo, DP submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 16, BR: 73, R: 650 km
ARL salvo, homing submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	A9, EP: 20/10, BR: 38, R: 650 km

Common TL7 Manportable Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Homing msl-HE	1074 cm: 1 (1+)	—	—	—	A5, EP: 4, BR: 3 cm
Cmd guided msl-HEAP	758 cm: 1 (57+)	—	—	—	A4, EP: 5, BR: 3 cm

TL8 Lancer Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Homing msl-HEAP	(20 km): 1 (193+)	—	—	—	A6, EP: 14, BR: 7 cm
Laser desig msl-HEAP	— 1 (193+)	— 1 (193+)	— 1 (193+)	— 1 (193+)	LD, A6, EP: 14, BR: 7 cm, R: 21 km

Common TL9 Manportable Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Homing msl-HE	1056 cm: 1 (2+)	—	—	—	A6, EP: 5, BR: 3 cm
Laser desig msl-HEAP	— 1 (101+)	— 1 (101+)	— 1 (101+)	— 1 (101+)	LD, A4, EP: 7, BR: 4 cm, R: 12 km

Common TL11 Manportable Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Homing msl-HE	1584 cm: 1 (2+)	—	—	—	A7, EP: 6, BR: 4 cm
Laser desig msl-HEAP	— 1 (113+)	— 1 (113+)	— 1 (113+)	— 1 (113+)	LD, A6, EP: 8, BR: 5 cm, R: 15 km

Common TL13 Manportable Tac Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Homing msl-HEAP	890 cm: 1 (53+)	—	—	—	A8, EP: 4, BR: 3 cm
Laser desig msl-HEAP	— 1 (125+)	— 1 (125+)	— 1 (125+)	— 1 (125+)	LD, A6, EP: 9, BR: 5 cm, R: 14 km

Reformation Coalition TL11 Planetary Strike (Orbital Bombardment) Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
Homing-HE	(40 km) N (38+)	(80 km) N (38+)	(160 km) N (38+)	(320 km) N (38+)	EP: 18, BR: 16 cm
Homing ARM-HE	(36 km) N (38+)	(72 km) N (38+)	(144 km) N (38+)	(288 km) N (38+)	EP: 18, BR: 16 cm
EMS desig-HE	— N (38+)	— N (38+)	— N (38+)	— N (38+)	ED, EP: 18, BR: 16 cm, R: 1483 km
Homing-HEAP	(40 km) N (353+)	(80 km) N (353+)	(160 km) N (353+)	(320 km) N (353+)	EP: 18, BR: 13 cm
Homing ARM-HEAP	(36 km) N (353+)	(72 km) N (353+)	(144 km) N (353+)	(288 km) N (353+)	EP: 18, BR: 13 cm
EMS desig-HEAP	— N (353+)	— N (353+)	— N (353+)	— N (353+)	ED, EP: 18, BR: 13 cm, R: 1483 km
Homing-submunition	(40 km) N (notes)	(80 km) N (notes)	(160 km) N (notes)	(320 km) N (notes)	EP: 16, BR: 23 cm
Homing ARM-submunition	(36 km) N (notes)	(72 km) N (notes)	(144 km) N (notes)	(288 km) N (notes)	EP: 16, BR: 23 cm
EMS desig-submunition	— N (notes)	— N (notes)	— N (notes)	— N (notes)	ED, EP: 16, BR: 23 cm, R: 1483 km
Homing-DP submunition	(40 km) N (notes)	(80 km) N (notes)	(160 km) N (notes)	(320 km) N (notes)	EP: 16, BR: 23 cm
Homing ARM-DP submunition	(36 km) N (notes)	(72 km) N (notes)	(144 km) N (notes)	(288 km) N (notes)	EP: 16, BR: 23 cm
EMS desig-DP submunition	— N (notes)	— N (notes)	— N (notes)	— N (notes)	ED, EP: 16, BR: 23 cm, R: 1483 km
Homing-homing submunition	(40 km) N (notes)	(80 km) N (notes)	(160 km) N (notes)	(320 km) N (notes)	EP: 20/10, BR: 12 cm
Homing ARM-homing submunition	(36 km) N (notes)	(72 km) N (notes)	(144 km) N (notes)	(288 km) N (notes)	EP: 20/10, BR: 12 cm
EMS desig-homing submun	— N (notes)	— N (notes)	— N (notes)	— N (notes)	ED, EP: 20/10, BR: 12 cm, R: 1483 km

Reformation Coalition TL11 Mjolnir Advanced ARM

Missiles:	Short	Medium	Long	Extreme	Notes
Homing ARM-HE	(36 km) 1 (38+)	(52 km) 1 (38+)	—	—	EP: 18, BR: 16 cm
EMS desig-HE	— 1 (38+)	— 1 (38+)	— 1 (38+)	— 1 (38+)	ED, EP: 18, BR: 16 cm, R: 52 km
Homing ARM-submunition	(36 km) 1 (notes)	(52 km) 1 (notes)	—	—	EP: 16, BR: 23 cm
EMS desig-submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 16, BR: 23 cm, R: 52 km
Homing ARM-DP submunition	(36 km) 1 (notes)	(52 km) 1 (notes)	—	—	EP: 16, BR: 23 cm
EMS desig-DP submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 16, BR: 23 cm, R: 52 km
Homing ARM-homing submunition	(36 km) 1 (notes)	(52 km) 1 (notes)	—	—	EP: 20/10, BR: 12 cm
EMS desig-homing submunition	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 20/10, BR: 12 cm, R: 52 km

TL15 Imperial 0.1-ton Remote Drone Missiles

Missiles:	Short	Medium	Long	Extreme	Notes
RDM HE	1236 cm: 10 (38+)	—	—	—	A9 (+5), EP: 18, BR: 16 cm, Move 560 (+3, +4)
RDM HEAP	1236 cm: 10 (353+)	—	—	—	A9 (+5), EP: 18, BR: 13 cm, Move 560 (+3, +4)
RDM submunition	1236 cm: 10 (notes)	—	—	—	A9 (+5), EP: 16, BR: 23 cm, Move 560 (+3, +4)
RDM DP submunition	1236 cm: 10 (notes)	—	—	—	A9 (+5), EP: 16, BR: 23 cm, Move 560 (+3, +4)
RDM homing submunition	1236 cm: 10 (notes)	—	—	—	A9 (+5), EP: 20/10, BR: 12 cm, Move 560 (+3, +4)

Slug Pistols

System:	Short	Medium	Long	Extreme	Notes
9mm revolver-4 ball	1 cm: 2 (Nil)	2 cm: 1 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
5mm revolver-5 ball	1 cm: 2 (Nil)	2 cm: 1 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
7mm revolver-5 ball	1 cm: 2 (Nil)	2 cm: 1 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
9mm revolver-5 ball	1 cm: 2 (Nil)	2 cm: 1 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
9mm magnum revolver-5 ball	1 cm: 2 (2)	2 cm: 1 (2)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
10mm snub revolver-8 HE	—	1 cm: 1 (Nil)	—	2 cm: 1 (Nil)	
10mm snub revolver-8 HEAP-9	—	1 cm: 1 (2)	—	2 cm: 1 (2)	
10mm snub auto-8 HE	—	1 cm: 2 (Nil)	—	2 cm: 1 (Nil)	
10mm snub auto-8 DS	1 cm: 3 (2)	—	3 cm: 1 (Nil)	6 cm: 1 (Nil)	
10mm snub auto-8 HEAP-9	—	1 cm: 2 (2)	—	2 cm: 1 (2)	
5mm body pistol-8 DS	—	1 cm: 2 (Nil)	—	2 cm: 1 (Nil)	
7mm autopistol-6 ball	1 cm: 3 (Nil)	2 cm: 2 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
9mm autopistol-6 ball	1 cm: 3 (Nil)	2 cm: 2 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
4mm gauss pistol-13 dart	1 cm: 4 (Nil)	2 cm: 3 (Nil)	4 cm: 2 (Nil)	8 cm: 1 (Nil)	
4mm gauss pistol-13 HEAP	1 cm: 4 (2)	2 cm: 3 (2)	4 cm: 2 (2)	8 cm: 1 (2)	
7.6mm RC(E) autopistol-9 ball	1 cm: 3 (2)	2 cm: 2 (2)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	
7.6mm RC(E) autopistol-9 DS	1 cm: 3 (2)	2 cm: 2 (2)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	
7.6mm RC(E) autopistol-9 HEAP	1 cm: 3 (2)	—	3 cm: 1 (2)	6 cm: 1 (2)	
9mm autopistol-6 ball	1 cm: 3 (Nil)	2 cm: 2 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	
9mm autopistol-6 DS-8	2 cm: 3 (2)	3 cm: 2 (2)	6 cm: 1 (Nil)	13 cm: 1 (Nil)	
5.5mm Ithklur gauss pistol-14 dart	3 cm: 3 (4)	6 cm: 2 (4)	12 cm: 1 (2)	24 cm: 1 (Nil)	
5.5mm Ithklur gauss pistol-14 HEAP	2 cm: 3 (3)	4 cm: 2 (3)	8 cm: 1 (3)	16 cm: 1 (3)	

Submachineguns

System:	Short	Medium	Long	Extreme	Notes
9mm SMG-5	4 cm: 4 (2)	8 cm: 3 (2)	16 cm: 2 (Nil)	32 cm: 1 (Nil)	
9mm SMG-6	4 cm: 4 (2)	8 cm: 3 (2)	16 cm: 2 (Nil)	32 cm: 1 (Nil)	
7.6mm RC(E) SMG-9 ball	8 cm: 4 (2)	16 cm: 3 (2)	32 cm: 2 (Nil)	64 cm: 1 (Nil)	
7.6mm RC(E) SMG-9 DS	9 cm: 4 (2)	18 cm: 3 (2)	36 cm: 2 (Nil)	72 cm: 1 (Nil)	
7.6mm RC(E) SMG-9 HEAP	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (2)	48 cm: 1 (2)	
9mm deck sweeper-5 ball	7 cm: 4 (2)	14 cm: 3 (2)	28 cm: 2 (Nil)	56 cm: 1 (Nil)	
9mm deck sweeper-5 DS-8	8 cm: 4 (2)	16 cm: 3 (2)	32 cm: 2 (1)	64 cm: 1 (Nil)	
9mm deck sweeper-5 HEAP-7	5 cm: 4 (2)	10 cm: 3 (2)	20 cm: 2 (2)	40 cm: 1 (2)	

Autoguns

System:	Short	Medium	Long	Extreme	Notes
7mm MMG-5 ball	15 cm: 5 (2)	30 cm: 4 (2)	60 cm: 3 (Nil)	120 cm: 2 (Nil)	
7mm LMG-6 ball	10 cm: 5 (2)	20 cm: 4 (2)	40 cm: 3 (Nil)	80 cm: 2 (Nil)	
13mm HMG-6 ball	16m: 5 (4)	32 cm: 4 (4)	64 cm: 3 (2)	128 cm: 2 (2)	
5mm LMG-7 ball	7 cm: 5 (3)	14 cm: 4 (3)	28 cm: 3 (Nil)	56 cm: 2 (Nil)	
5mm rotary-7 ball	12 cm: 7 (3)	24 cm: 6 (3)	48 cm: 5 (Nil)	96 cm: 4 (Nil)	
7mm rotary-7 ball	23 cm: 7 (2)	46 cm: 6 (2)	92 cm: 5 (2)	184 cm: 4 (Nil)	
5mm rotary-8 ball	15m: 7 (3)	30 cm: 6 (3)	60 cm: 5 (Nil)	120 cm: 4 (Nil)	
7mm rotary-8 ball	27 cm: 7 (3)	54 cm: 6 (3)	108 cm: 5 (2)	216 cm: 4 (Nil)	
VRF gauss gun-10 dart	30 cm: 7 (6)	60 cm: 6 (6)	120 cm: 5 (2)	240 cm: 4 (1)	
VRF gauss gun-10 HEAP	23 cm: 7 (4)	46 cm: 6 (4)	92 cm: 5 (4)	184 cm: 4 (4)	
7mm CMWS SAW-10 ball	12 cm: 4 (3)	24 cm: 3 (3)	48 cm: 2 (2)	96 cm: 1 (Nil)	
7mm CMWS SAW-10 DS	16 cm: 4 (5)	32 cm: 3 (5)	64 cm: 2 (3)	128 cm: 1 (2)	
7mm CMWS SAW-10 HEAP	9 cm: 4 (3)	18 cm: 3 (3)	36 cm: 2 (3)	72 cm: 1 (3)	
7mm CMWS GPMG-10 ball	20 cm: 4 (3)	40 cm: 3 (3)	80 cm: 2 (2)	160 cm: 1 (Nil)	
7mm CMWS GPMG-10 DS	24 cm: 4 (5)	48 cm: 3 (5)	96 cm: 2 (3)	192 cm: 1 (2)	
7mm CMWS GPMG-10 HEAP	15 cm: 4 (3)	30 cm: 3 (3)	60 cm: 2 (3)	120 cm: 1 (3)	
4mm gauss SAW-12 dart	17 cm: 5 (5)	34 cm: 4 (5)	68 cm: 3 (2)	136 cm: 2 (Nil)	
4mm gauss SAW-12 HEAP	13 cm: 5 (3)	26 cm: 4 (3)	52 cm: 3 (3)	104 cm: 2 (3)	
5.5mm Ithklur gauss SAW-14 dart	25 cm: 5 (7)	50 cm: 4 (7)	100 cm: 3 (4)	200 cm: 2 (2)	
5.5mm Ithklur gauss SAW-14 HEAP	19 cm: 5 (4)	38 cm: 4 (4)	76 cm: 3 (4)	152 cm: 2 (4)	
7.5mm RC(E) MMG-9 ball	30 cm: 5 (4)	60 cm: 4 (4)	120 cm: 3 (2)	240 cm: 2 (2)	
7.5mm RC(E) MMG-9 DS	30 cm: 5 (7)	60 cm: 4 (7)	120 cm: 3 (4)	240 cm: 2 (2)	
7.5mm RC(E) MMG-9 HEAP-11	28 cm: 5 (4)	56 cm: 4 (4)	112 cm: 3 (4)	224 cm: 2 (4)	
15mm RC(E) HMG-9 ball	30 cm: 7 (8)	60 cm: 6 (8)	120 cm: 5 (8)	240 cm: 4 (8)	
15mm RC(E) HMG-9 DS	30 cm: 7 (16)	60 cm: 6 (16)	120 cm: 5 (16)	240 cm: 4 (16)	
7mm RC(E) rotary-9 ball	22 cm: 7 (3)	44 cm: 6 (3)	88 cm: 5 (2)	176 cm: 4 (Nil)	
7mm RC(E) rotary-9 DS	27 cm: 7 (5)	54 cm: 6 (5)	108 cm: 5 (3)	216 cm: 4 (2)	
7mm RC(E) rotary-9 HEAP	17 cm: 7 (3)	34 cm: 6 (3)	68 cm: 5 (3)	136 cm: 4 (3)	

Slug Rifles and Carbines

System:	Short	Medium	Long	Extreme	Notes
7mm carbine-5 ball	5 cm: 3 (2)	10 cm: 2 (2)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
7mm rifle-5 ball	6 cm: 3 (2)	12 cm: 2 (2)	24 cm: 1 (Nil)	48 cm: 1 (Nil)	
9mm rifle-7 ball	9 cm: 3 (2)	18 cm: 2 (2)	36 cm: 1 (1)	72 cm: 1 (Nil)	
9mm rifle-7 DS-8	10 cm: 3 (4)	20 cm: 2 (4)	40 cm: 1 (2)	80 cm: 1 (1)	
9mm rifle-7 HEAP-9	6 cm: 3 (3)	12 cm: 2 (3)	24 cm: 1 (3)	48 cm: 1 (3)	
12mm rifle-5 ball	15 cm: 2 (2)	30 cm: 1 (2)	60 cm: 1 (Nil)	120 cm: 1 (Nil)	
7mm autorifle-6 ball	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
4mm gauss rifle-12 dart	10 cm: 4 (4)	20 cm: 3 (4)	40 cm: 2 (2)	80 cm: 1 (Nil)	
4mm gauss rifle-12 HEAP	7 cm: 4 (2)	14 cm: 3 (2)	28 cm: 2 (2)	56 cm: 1 (2)	
5mm assault rifle-7 ball	5 cm: 4 (3)	10 cm: 3 (3)	20 cm: 2 (Nil)	40 cm: 1 (Nil)	
5mm assault rifle-7 DS-8	6 cm: 4 (3)	12 cm: 3 (3)	24 cm: 2 (2)	48 cm: 1 (Nil)	
5mm assault rifle-7 HEAP-8	4 cm: 4 (2)	8 cm: 3 (2)	16 cm: 2 (2)	32 cm: 1 (2)	
7mm assault rifle-7 ball	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm assault rifle-7 DS-8	7 cm: 4 (4)	14 cm: 3 (4)	28 cm: 2 (2)	56 cm: 1 (Nil)	
7mm assault rifle-7 HEAP-9	5 cm: 4 (2)	10 cm: 3 (2)	20 cm: 2 (2)	40 cm: 1 (2)	
7mm ACR-10 ball	10 cm: 4 (3)	20 cm: 3 (3)	40 cm: 2 (2)	80 cm: 1 (Nil)	
7mm ACR-10 DS	12 cm: 4 (5)	24 cm: 3 (5)	48 cm: 2 (3)	96 cm: 1 (2)	
7mm ACR-10 HE	8 cm: 4 (Nil)	16 cm: 3 (Nil)	32 cm: 2 (Nil)	64 cm: 1 (Nil)	
7mm ACR-10 HEAP	8 cm: 4 (3)	16 cm: 3 (3)	32 cm: 2 (3)	64 cm: 1 (3)	
2 cm LAG-8 DS	25 cm: 3 (6)	50 cm: 2 (6)	100 cm: 1 (2)	200 cm: 1 (1)	
2 cm LAG-8 HE	16 cm: 3 (Nil)	32 cm: 2 (Nil)	64 cm: 1 (Nil)	128 cm: 1 (Nil)	
2 cm LAG-8 HEAP-9	16 cm: 3 (5)	32 cm: 2 (5)	64 cm: 1 (5)	128 cm: 1 (5)	
2 cm LAG-8 flechette	7 cm: 3* (Nil)	14 cm: 2 (Nil)	28 cm: 1 (Nil)	—	
7mm autorifle-6 ball	6 cm: 4 (2)	12 cm: 3 (2)	24 cm: 2 (Nil)	48 cm: 1 (Nil)	
7mm autorifle-6 DS-8	7 cm: 4 (4)	14 cm: 3 (4)	28 cm: 2 (2)	56 cm: 1 (Nil)	
7mm autorifle-6 HEAP-8	5 cm: 4 (2)	10 cm: 3 (2)	20 cm: 2 (2)	40 cm: 1 (2)	
5.5mm RC(E) assault rifle-9 ball	9 cm: 4 (3)	18 cm: 3 (3)	36 cm: 2 (2)	72 cm: 1 (Nil)	
5.5mm RC(E) assault rifle-9 DS	11 cm: 4 (5)	22 cm: 3 (5)	44 cm: 2 (3)	88 cm: 1 (Nil)	
5.5mm RC(E) assault rifle-9 HEAP	7 cm: 4 (3)	14 cm: 3 (3)	28 cm: 2 (3)	56 cm: 1 (3)	
13mm sniper rifle-6 ball	30 cm: 3 (5)	60 cm: 2 (5)	120 cm: 1 (3)	240 cm: 1 (2)	
13mm sniper rifle-6 DS-8	30 cm: 3 (9)	60 cm: 2 (9)	120 cm: 1 (5)	240 cm: 1 (3)	
13mm sniper rifle-6 HEAP-9	27 cm: 3 (5)	54 cm: 2 (5)	108 cm: 1 (5)	216 cm: 1 (5)	
14.5mm AAR-5 ball	29 cm: 3 (6)	58 cm: 2 (6)	116 cm: 1 (6)	232 cm: 1 (4)	
14.5mm AAR-5 DS-8	30 cm: 3 (12)	60 cm: 2 (12)	120 cm: 1 (12)	240 cm: 1 (6)	
7mm CMWS carbine-10 ball	8 cm: 4 (3)	16 cm: 3 (3)	32 cm: 2 (2)	64 cm: 1 (Nil)	
7mm CMWS carbine-10 DS	10 cm: 4 (5)	20 cm: 3 (5)	40 cm: 2 (3)	80 cm: 1 (2)	
7mm CMWS carbine-10 HEAP	6 cm: 4 (3)	12 cm: 3 (3)	24 cm: 2 (3)	48 cm: 1 (3)	
7mm CMWS rifle-10 ball	9 cm: 4 (3)	18 cm: 3 (3)	36 cm: 2 (2)	72 cm: 1 (Nil)	
7mm CMWS rifle-10 DS	11 cm: 4 (5)	22 cm: 3 (5)	44 cm: 2 (3)	88 cm: 1 (2)	
7mm CMWS rifle-10 HEAP	7 cm: 4 (3)	14 cm: 3 (3)	28 cm: 2 (3)	56 cm: 1 (3)	
5.5mm Ithklur gauss rifle-14 dart	12 cm: 4 (6)	24 cm: 3 (6)	48 cm: 2 (2)	96 cm: 1 (1)	
5.5mm Ithklur gauss rifle-14 HEAP	9 cm: 4 (4)	18 cm: 3 (4)	36 cm: 2 (4)	72 cm: 1 (4)	

Archaic Firearms

System:	Short	Medium	Long	Extreme	Notes
Wall gun-2 shot	1 cm: 1* (Nil)	2 cm: 1 (Nil)	—	—	
Wall gun-2 ball	3 cm: 1 (1)	6 cm: 1 (1)	12 cm: 1 (Nil)	24 cm: 1 (Nil)	
Blunderbuss-2M shot	3 cm: 1* (Nil)	6 cm: 1 (Nil)	—	—	
Blunderbuss-2M ball	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	
Blunderbuss pistol-2M shot	1 cm: 1* (Nil)	2 cm: 1 (Nil)	—	—	
Horse pistol-3	2 cm: 1 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	
Smoothbore flintlock musket-3	3 cm: 1 (Nil)	6 cm: 1 (Nil)	12 cm: 1 (Nil)	24 cm: 1 (Nil)	
Flintlock rifle-musket-3	8 cm: 1 (3)	16 cm: 1 (3)	32 cm: 1 (Nil)	64 cm: 1 (Nil)	
Rifled musket-3M	8 cm: 1 (3)	16 cm: 1 (3)	32 cm: 1 (Nil)	64 cm: 1 (Nil)	

Bow Weapons

System:	Short	Medium	Long	Extreme	Notes
Short bow-0	2 cm: 1 (Nil)	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	
Long composite bow-1	3 cm: 1 (Nil)	6 cm: 1 (Nil)	12 cm: 1 (Nil)	24 cm: 1 (Nil)	
Light crossbow-2	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	

Shotguns

System:	Short	Medium	Long	Extreme	Notes
18mm double-barreled shotgun-4 slug	5 cm: 2 (1)	10 cm: 1 (1)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
18mm double-barreled shotgun-4 shot	3 cm: 2* (Nil)	6 cm: 1 (Nil)	—	—	
18mm sawed-off shotgun-4 slug	—	—	1 cm: 1 (Nil)	—	
18mm sawed-off shotgun-4 shot	—	—	1 cm: 1* (Nil)	—	
18mm pump shotgun-4 slug	5 cm: 3 (1)	10 cm: 2 (1)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	
18mm pump shotgun-4 shot	3 cm: 3* (Nil)	6 cm: 2 (Nil)	—	—	
18mm auto shotgun-7 slug	8 cm: 3 (1)	16 cm: 2 (1)	32 cm: 1 (Nil)	64 cm: 1 (Nil)	
18mm auto shotgun-7 shot	5 cm: 3* (Nil)	10 cm: 2 (Nil)	—	—	
18mm RCAAS-10 slug	3 cm: 4 (2)	6 cm: 3 (2)	12 cm: 2 (1)	24 cm: 1 (Nil)	

System:	Short	Medium	Long	Extreme	Notes
18mm RCAAS-10 shot	2 cm: 4* (2)	4 cm: 3 (Nil)	—	—	
18mm RCAAS-10 DS	4 cm: 4 (3)	8 cm: 3 (3)	16 cm: 2 (2)	32 cm: 1 (1)	
18mm RCAAS-10 HEAP	2 cm: 4 (4)	4 cm: 3 (4)	8 cm: 2 (4)	16 cm: 1 (4)	

Lasers

System:	Short	Medium	Long	Extreme	Notes
10 cm DEI Carbine-8	20 cm: 2 (Nil)	40 cm: 1 (Nil)	80 cm: 1 (Nil)	160 cm: 1 (Nil)	
5 cm DEI pistol-9	9 cm: 3 (Nil)	18 cm: 2 (Nil)	36 cm: 1 (Nil)	72 cm: 1 (Nil)	
8 cm DEI rifle-9	16 cm: 3 (Nil)	32 cm: 2 (Nil)	64 cm: 1 (Nil)	128 cm: 1 (Nil)	
2 cm CLC pistol-13	9 cm: 3 (Nil)	18 cm: 2 (Nil)	36 cm: 1 (Nil)	72 cm: 1 (Nil)	
2 cm personal defense laser-13	20 cm: 3 (Nil)	40 cm 2 (Nil)	80 cm: 1 (Nil)	160 cm: 1 (Nil)	
3 cm CLC carbine-13	30 cm: 3 (Nil)	60 cm: 2 (Nil)	120 cm: 1 (Nil)	240 cm: 1 (Nil)	
4 cm CLC rifle-13	30 cm: 3 (Nil)	60 cm: 2 (Nil)	120 cm: 1 (Nil)	240 cm: 1 (Nil)	
6 cm CLC SSL-13	30 cm: 5 (Nil)	60 cm: 4 (Nil)	120 cm: 3 (Nil)	240 cm: 2 (Nil)	
6 cm laser Sniper Weapon-13	30 cm: 1 (10)	60 cm: 1 (10)	120 cm: 1 (10)	240 cm: 1 (4)	

High-Energy Weapons

System:	Short	Medium	Long	Extreme	Notes
4.3 cm plasma rifle-12	8 cm: 2 (23+)	16 cm: 1 (23+)	32 cm: 1 (12+)	64 cm: 1 (2+)	
4.7 cm plasma rifle-13	9 cm: 2 (27+)	18 cm: 1 (27+)	36 cm: 1 (14+)	72 cm: 1 (3+)	
4.1 cm plasma rifle-14 comp	9 cm: 2 (27+)	18 cm: 1 (27+)	36 cm: 1 (14+)	72 cm: 1 (3+)	
4.7 cm fusion rifle-14	16 cm: 2 (33+)	32 cm: 1 (33+)	64 cm: 1 (17+)	128 cm: 1 (3+)	
4.7 cm fusion rifle-14 comp	16 cm: 2 (33+)	32 cm: 1 (33+)	64 cm: 1 (17+)	128 cm: 1 (3+)	
5.1 cm fusion rifle-15 comp	18 cm: 2 (37+)	36 cm: 1 (37+)	72 cm: 1 (19+)	144 cm: 1 (4+)	

Heavy Weapons

System:	Short	Medium	Long	Extreme	Notes
6 cm assault rckt lnchr-HE	20 cm: 2 (2+)	40 cm: 1 (2+)	—	—	EP: 6, BR: 4 cm
6 cm assault rckt lnchr-HEAP	20 cm: 2 (65+)	40 cm: 1 (65+)	—	—	EP: 5, BR: 3 cm
6 cm assault rckt lnchr-WP	20 cm: 2 (Nil)	40 cm: 1 (Nil)	—	—	EP: 3, BR: 2 cm
6 cm assault rckt lnchr-flechette	20 cm: 2* (2)	40 cm: 1* (2)	—	—	DS: 1×5 cm
10 cm plasma bazooka	17 cm: 1 (51+)	34 cm: 1 (51+)	68 cm: 1 (26+)	136 cm: 1 (5+)	EP: 3, BR: 1 cm

Grenade Launchers

System:	Short	Medium	Long	Extreme	Notes
4 cm low-vel GL-8 HE	10 cm: 2 (Nil)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	—	EP: 3, BR: 2 cm, IFR: 40 cm
4 cm low-vel GL-8 HEAP	10 cm: 2 (33+)	20 cm: 1 (33+)	40 cm: 1 (33+)	—	EP: 3, BR: 1 cm, IFR: 40 cm
4 cm low-vel GL-8 WP	10 cm: 2 (Nil)	20 cm: 1 (Nil)	40 cm: 1 (Nil)	—	EP: 3, BR: 1 cm, IFR: 40 cm
4 cm low-vel GL-8 flechette	1 cm: 2* (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	—	
4cm RAMGL-9 HE	24 cm: 3 (Nil)	48 cm: 2 (Nil)	96 cm: 1 (Nil)	192 cm: 1 (Nil)	EP: 3, BR: 2 cm, IFR: 360 cm
4cm RAMGL-9 HEAP	24 cm: 3 (41+)	48 cm: 2 (41+)	96 cm: 1 (41+)	192 cm: 1 (41+)	EP: 3, BR: 1 cm, IFR: 360 cm
2.5 cm low-vel GL-10 HE	10 cm: 3 (Nil)	20 cm: 2 (Nil)	40 cm: 1 (Nil)	—	EP: 3, BR: 2 cm, IFR: 40 cm
2.5 cm low-vel GL-10 HEAP	10 cm: 3 (23+)	20 cm: 2 (23+)	40 cm: 1 (23+)	—	EP: 2, BR: 1 cm, IFR: 40 cm

Rifle Grenades

System:	Short	Medium	Long	Extreme	Notes
6 cm rifle grenade-5 HE	— 1 (2+)	— 1 (2+)	— 1 (2+)	— 1 (2+)	EP: 4, BR: 2 cm, IFR: 18 cm
6 cm rifle grenade-5 HEAP	— 1 (17+)	— 1 (17+)	— 1 (17+)	— 1 (17+)	EP: 3, BR: 2 cm, IFR: 18 cm
4 cm RAM rifle grenade-8 HE	3 cm: 1 (Nil)	6 cm: 1 (Nil)	12 cm: 1 (Nil)	24 cm: 1 (Nil)	EP: 3, BR: 2 cm, IFR: 50 cm
4 cm RAM rifle grenade-8 HEAP	3 cm: 1 (33+)	6 cm: 1 (33+)	12 cm: 1 (33+)	24 cm: 1 (33+)	EP: 3, BR: 1 cm, IFR: 50 cm
4 cm RAM rifle grenade-9 HE	4 cm: 1 (Nil)	8 cm: 1 (Nil)	16 cm: 1 (Nil)	32 cm: 1 (Nil)	EP: 3, BR: 2 cm, IFR: 50 cm
4 cm RAM rifle grenade-9 HEAP	4 cm: 1 (41+)	8 cm: 1 (41+)	16 cm: 1 (41+)	32 cm: 1 (41+)	EP: 3, BR: 1 cm, IFR: 50 cm

Hand Grenades

System:	Short	Medium	Long	Extreme	Notes
HE/frag-4&5	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 3, BR: 1 cm
HE/frag-6&7	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 3, BR: 2 cm
HE/frag-8+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: 2 cm
HEAP-5	1 cm: 1 (11+)	2 cm: 1 (11+)	3 cm: 1 (11+)	4 cm: 1 (11+)	EP: 3, BR: 1 cm
HEAP-6	1 cm: 1 (20+)	2 cm: 1 (20+)	3 cm: 1 (20+)	4 cm: 1 (20+)	EP: 3, BR: 1 cm
HEAP-7	1 cm: 1 (29+)	2 cm: 1 (29+)	3 cm: 1 (29+)	4 cm: 1 (29+)	EP: 3, BR: 1 cm
HEAP-8	1 cm: 1 (38+)	2 cm: 1 (38+)	3 cm: 1 (38+)	4 cm: 1 (38+)	EP: 3, BR: 1 cm
HEAP-9+	1 cm: 1 (47+)	2 cm: 1 (47+)	3 cm: 1 (47+)	4 cm: 1 (47+)	EP: 3, BR: 1 cm
Chemical/smoke-4+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 3, BR: 1 cm
WP-4+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 3, BR: 1 cm
Thermite-4+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 3, BR: 1 cm
Concussion-4&5	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 3, BR: —
Concussion-6&7	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 4, BR: —
Concussion-8&9	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 5, BR: —
Concussion-10+	1 cm: 1 (Nil)	2 cm: 1 (Nil)	3 cm: 1 (Nil)	4 cm: 1 (Nil)	EP: 6, BR: —

Black Powder Cannons

System:	Short	Medium	Long	Extreme	Notes
13.5 cm heavy field gun-2 shot	14 cm: 1 (9+)	28 cm: 1 (8+)	56 cm: 1 (7+)	112 cm: 1 (4+)	
13.5 cm heavy field gun-2 cann	— 1* (2)	—	—	—	DS: 2×7 cm from barrel
9.5 cm light field gun-3 shot	13 cm: 1 (5+)	26 cm: 1 (4+)	52 cm: 1 (4+)	104 cm: 1 (2+)	
9.5 cm light field gun-3 cannister	— 1* (2)	—	—	—	DS: 2×7 cm from barrel
7.5 cm rifled field gun-3 shot	26 cm: 1 (7+)	52 cm: 1 (6+)	104 cm: 1 (6+)	208 cm: 1 (4+)	
7.5 cm rifled field gun-3 shell	26 cm: 1 (1+)	52 cm: 1 (1+)	104 cm: 1 (1+)	208 cm: 1 (1+)	EP: 3, BR: 2 cm
7.5 cm rifled field gun-3 cannister	— 1* (2)	—	—	—	DS: 3×13 cm from barrel
7.5 cm rifled field gun-3 shrapnel	26 cm: 1 (Nil)	52 cm: 1 (Nil)	104 cm: 1 (Nil)	208 cm: 1 (Nil)	EP: 3, BR: 3 cm
12 cm howitzer-3 shot	8 cm: 1 (3+)	16 cm: 1 (3+)	32 cm: 1 (3+)	64 cm: 1 (2+)	EP: 4, BR: 2 cm
12 cm howitzer-3 shell	8 cm: 1 (5+)	16 cm: 1 (5+)	32 cm: 1 (5+)	64 cm: 1 (5+)	EP: 4, BR: 2 cm
12 cm howitzer-3 cannister	— 1* (2)	—	—	—	DS: 1×4 cm from barrel

Mortars

System:	Short	Medium	Long	Extreme	Notes
TL6 8 cmL10 mortar-HE	— 1 (5+)	— 1 (5+)	— 1 (5+)	— 1 (5+)	EP: 6, BR: 3 cm, IFR: 441 cm
TL6 10 cmL15 mortar-HE	— 1 (8+)	— 1 (8+)	— 1 (8+)	— 1 (8+)	EP: 7, BR: 4 cm, IFR: 699 cm
TL8 8 cmL10 mortar-HE	— 1 (5+)	— 1 (5+)	— 1 (5+)	— 1 (5+)	EP: 7, BR: 4 cm, IFR: 515 cm
TL8 8 cmL10 mortar-HEAP	— 1 (73+)	— 1 (73+)	— 1 (73+)	— 1 (73+)	LD, EP: 5, BR: 3 cm, IFR: 515 cm
TL8 8 cmL10 mortar-submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 16, BR: 2 cm, IFR: 515 cm
TL8 8 cmL10 mortar-DP submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 16, BR: 2 cm, IFR: 515 cm
TL9 8 cmL10 mortar-HE	— 1 (5+)	— 1 (5+)	— 1 (5+)	— 1 (5+)	EP: 7, BR: 3 cm, IFR: 552 cm
TL9 8 cmL10 mortar-HEAP	— 1 (89+)	— 1 (89+)	— 1 (89+)	— 1 (89+)	LD, EP: 6, BR: 3 cm, IFR: 552 cm
TL9 8 cmL10 mortar-submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 16, BR: 2 cm, IFR: 552 cm
TL9 8 cmL10 mortar-DP submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 16, BR: 2 cm, IFR: 552 cm
TL9 8 cmL10 mortar-hmg submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 20/10, BR: 1 cm, IFR: 552 cm
TL9 12 cmL10 mortar-HE	— 1 (11+)	— 1 (11+)	— 1 (11+)	— 1 (11+)	EP: 11, BR: 6 cm, IFR: 675 cm
TL9 12 cmL10 mortar-HEAP	— 1 (137+)	— 1 (137+)	— 1 (137+)	— 1 (137+)	LD, EP: 9, BR: 5 cm, IFR: 675 cm
TL9 12 cmL10 mortar-submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 16, BR: 4 cm, IFR: 675 cm
TL9 12 cmL10 mortar-DP submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 16, BR: 4 cm, IFR: 675 cm
TL9 12 cmL10 mortar-hmg submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	LD, EP: 20/10, BR: 3 cm, IFR: 675 cm
TL12 8 cmL10 mortar-HE	— 1 (5+)	— 1 (5+)	— 1 (5+)	— 1 (5+)	EP: 8, BR: 5 cm, IFR: 662 cm
TL12 8 cmL10 mortar-HEAP	— 1 (89+)	— 1 (89+)	— 1 (89+)	— 1 (89+)	ED, EP: 7, BR: 4 cm, IFR: 662 cm
TL12 8 cmL10 mortar-submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 16, BR: 2 cm, IFR: 662 cm
TL12 8 cmL10 mortar-DP submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 16, BR: 2 cm, IFR: 662 cm
TL12 8 cmL10 mortar-hmg submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 20/10, BR: 1 cm, IFR: 662 cm
TL15 8 cmL10 mortar-HE	— 1 (5+)	— 1 (5+)	— 1 (5+)	— 1 (5+)	EP: 8, BR: 5 cm, IFR: 772 cm
TL15 8 cmL10 mortar-HEAP	— 1 (89+)	— 1 (89+)	— 1 (89+)	— 1 (89+)	ED, EP: 7, BR: 4 cm, IFR: 772 cm
TL15 8 cmL10 mortar-submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 16, BR: 2 cm, IFR: 772 cm
TL15 8 cmL10 mortar-DP submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 16, BR: 2 cm, IFR: 772 cm
TL15 8 cmL10 mortar-hmg submun	— 1 (notes)	— 1 (notes)	— 1 (notes)	— 1 (notes)	ED, EP: 20/10, BR: 1 cm, IFR: 772 cm

Antitank Rocket Launchers

System:	Short	Medium	Long	Extreme	Notes
TL6 medium ATRL	20 cm: 1 (35+)	40 cm: 1 (35+)	—	—	A3, EP: 4, BR: 3 cm
TL7 medium ATRL	20 cm: 1 (49+)	40 cm: 1 (49+)	—	—	A4, EP: 5, BR: 3 cm
TL8 light ATRL	20 cm: 1 (63+)	40 cm: 1 (63+)	—	—	A5, EP: 6, BR: 3 cm
TL9 light ATRL	20 cm: 1 (77+)	40 cm: 1 (77+)	—	—	A5, EP: 8, BR: 3 cm

Armor

TL	Type	Armor Value (Save)	Notes
5	Flak jacket	1	No save vs. lasers, −2 cm move
5	helmet	1	No save vs. lasers
7	Flak jacket	1	No save vs. lasers, −2 cm move
7	Ballistic cloth vest	1	No save vs. lasers
7	Ballistic cloth body suit	1	No save vs. lasers, −2 cm move
8	Ballistic weave helmet	1	No save vs. lasers
8	Ballistic weave vest	1	No save vs. lasers
8	Ballistic weave body suit	1	No save vs. lasers, −2 cm move
9	Combat environment suit	1	No save vs. lasers
10	Combat armor	1	−2 cm move
10	Battle dress	4	−6 cm move, −2 Initiative
12	Combat armor	2	−2 cm move
12	RC light battle dress	6	WSV goggles (40 cm), 3 km radio, 3 km laser designator, −4 cm move, −1 Initiative
12	RC heavy battle dress	12	WSV goggles (40 cm), 3 km radio, 3 km laser designator, −6 cm move, −2 Initiative
12	RC heavy scout battle dress	12	WSV goggles (40 cm), 3 km Passive EMS, 3 km radio, 3 km laser designator, −6 cm move, −2 Initiative
14	Combat armor	4	−2 cm move
14	light battle dress	8	WSV goggles (40 cm), 30 km radio, 3 km laser designator, −2 cm move, −1 Initiative
14	Heavy battle dress	16	WSV goggles (40 cm), 30 km radio, 3 km laser designator, −4 cm move, −1 Initiative

Grav Belts

Type	Movement
TL12-15 Grav Belt	120 low (+1,+2), 2520 high (+4)
TL12 Grav Rail	120 low (+1,+2), 2520 high (+4)

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The following organizations represent military units from the pre-collapse Final Imperium, the Zhodani Consulate, the Reformation Coalition, and two worlds in the Wilds of the New Era. They are presented for use in **Striker** scenarios and as samples to assist players in the design of additional units. None of these units need be used in their entirety; in fact it is not intended for them to be, especially in the case of regiments like the Duke of Regina's Huscarles.

Rather, representative "slices" of these units can be modelled and placed on the gaming table. For example, the Branatian rifle regiment will likely be more than can be purchased, assembled, and painted by the average gaming group. However, a company or battalion-sized slice of the unit could be portrayed, for example, a rifle battalion plus a platoon of tanks and the antitank battery. These slices will often retain the same overall proportions as the whole unit, but need not in all cases. Players and referees should modify, mix, and match the following organizations to suit the needs and interests of their campaigns.

Italicized units are included for realism, but as they have no impact on play, can routinely be omitted from tabletop armies.

Imperial Marine Task Force

Imperial Marine Task Force, with:
  Force Command Headquarters, with:
    Command Post Section, with:
      1 operational command stand
      1 Imperial Marine Command APC
      1 staff uplink Imperial Marine Command APC
    Communications Section, with:
      1 staff uplink Imperial Marine Command APC
      1 staff radio Imperial Marine Command APC
    Point Defense Section, with:
      1 tactical command TL15 Convertible Air Raft
      3 TL15 Point Defense APCs
    Nuclear Damper Section, with:
      3 tactical command ND Director APCs
      4 TL15 Nuclear Damper APCs
    Scout Section, with:
      1 tactical command TL15 Armed Air Raft
      4 self-ordering TL15 Armed Air Rafts
    Medical Section, with:
      1 tactical command stand
      1 TL15 Hospital APC
      1 TL15 Utility Sled
      3 TL15 Ambulance APCs

    Maintenance Section, with:
      1 tactical command stand
      2 TL15 Recovery Sleds
      2 TL15 Utility Sleds with maintenance shops
      2 TL15 Utility Sleds
      1 TL15 Convertible Air Raft
    Mess and Transport Section, with:
      1 tactical command stand
      1 TL15 Utility Sled
      4 TL15 Utility Sleds with field kitchens
      1 TL15 Convertible Air Raft
  3 Line Marine Companies, each with:
    Command Post Section, with:
      1 operational command stand
      1 staff uplink Imperial Marine Command APC
      1 infantry stand
    4 Marine Platoons, each with:
      Platoon Headquarters, with:
        1 tactical command stand
        1 Imperial Marine Support APC
      5 Marine Squads, each with:
        1 tactical command stand
        2 infantry stands
        1 Imperial Marine APC
  Meson Battery, with:
    Battery Headquarters Section, with:
      1 operational command Imperial Marine Command APC
      1 Imperial Marine FDC APC
      3 self-ordering FO TL15 Convertible Air Rafts
    Battery Security Section, with:
      Section Headquarters, with:
        1 tactical command TL15 Armed Air Raft
      2 Marine Squads, each with:
        1 tactical command stands
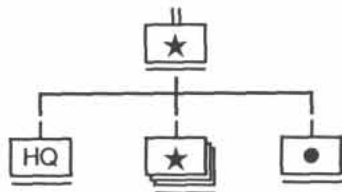   2 infantry stands
        1 Imperial Marine APC
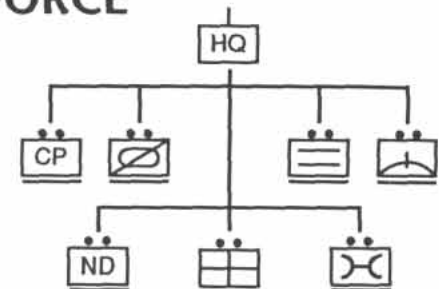   **4 Firing Sections**, each with:
      1 Imperial Meson Sled

Notes: All personnel stands are equipped with TL14 light battle dress. All infantry stands are armed with TL14 4.7cm fusion rifles with an integral TL15 5.1cm fusion rifle. Single figure command stands are also armed with TL14 4.7cm fusion rifles.

IMPERIAL MARINE TASK FORCE

TYPICAL TASK FORCE CONFIGURATION

TASK FORCE HEADQUARTERS COMPANY BREAKDOWN

Imperial Guard Jump Infantry Regiment

Imperial Guard Jump Infantry Regiment, with:
Regimental Headquarters &Headquarters Company, with:
Headquarters Platoon, with:
Command Post Section, with:
1 operational command stand
1 Imperial Command Grav APC
1 staff uplink Imperial Command Grav APC
Communications Section, with:
1 staff uplink Imperial Command Grav APC
1 staff radio Imperial Command Grav APC
Point Defense Section, with:
1 tactical command TL15 Convertible Air Raft
3 TL15 Point Defense APCs
Nuclear Damper Section, with:
3 tactical command ND Director APCs
4 TL15 Nuclear Damper APCs
Scout Section, with:
1 tactical command TL15 Armed Air Raft
4 self-ordering TL15 Armed Air Rafts
Medical Platoon, with:
1 tactical command stand
1 TL15 Hospital APC
1 TL15 Utility Sled
3 TL15 Ambulance APCs
Maintenance and Support Platoon, with:
1 tactical command stand
2 TL15 Recovery Sleds
2 TL15 Utility Sleds with maintenance shops
2 TL15 Utility Sleds
1 TL15 Convertible Air Raft
Grav Tank Battalion, with:
Headquarters Section, with:
1 operational command Heavy Command Grav Tank
2 self-ordering Heavy Grav Tanks
3 Grav Tank Companies, each with:
Company Headquarters, with:
1 tactical command Heavy Command Grav Tank
2 self-ordering Heavy Grav Tanks
3 Grav Tank Platoons, each with:
1 tactical command Heavy Grav Tank
4 self-ordering Heavy Grav Tanks
Artillery Battery, with:
Battery Headquarters, with:
1 operational command stand
1 Imperial FDC Grav APC
2 MRL Sections, each with:
1 tactical command MRL Artillery Vehicle
3 MRL Artillery Vehicles
Drone Missile Section, with:
1 operational command RDM Artillery Vehicle
3 RDM Artillery Vehicles
3 Jump Troop Battalions, each with:
Battalion Headquarters, with:
1 operational command stand
1 Imperial Command Grav APC
1 staff uplink Imperial Command Grav APC
1 staff radio Imperial Command Grav APC
3 Jump Troop Companies, each with:
Command Post Section, with:

1 operational command stand
1 staff uplink Imperial Command Grav APC
3 Jump Troop Platoons, each with:
Platoon Headquarters, with:
1 tactical command grav belt stand
1 grav belt support infantry stand
3 Jump Troop Squads, each with:
1 tactical command grav belt stand
2 grav belt infantry stands
Grav Tank Company, with:
Company Headquarters, with:
1 tactical command Heavy Command Grav Tank
2 self-ordering Heavy Grav Tanks
3 Grav Tank Platoons, each with:
1 tactical command Heavy Grav Tank
4 self-ordering Heavy Grav Tanks
Artillery Platoon, with:
1 tactical command stand
1 Imperial FDC Grav APC
4 MRL Artillery Vehicles
Support Platoon, with:
3 TL15 Utility Sleds
1 command stand
6 support stands

Notes: All personnel stands are equipped with TL14 heavy battle dress. All infantry and single-figure command stands are also equipped with grav belts. Infantry stands are armed with TL14 4.7cm fusion rifles, TL15 portable Tac missiles, and integral TL15 5.1cm fusion rifles. Single figure command stands are also armed with TL14 4.7cm fusion rifles.

Support infantry stands are armed with TL15 portable Tac missiles and an integral TL15 5.1cm fusion rifle.

The Imperial Command Grav APC is identical to the Imperial FDC APC but without the FDC fitted.

Imperial Guard Regiments

There were 11 Imperial Guard regiments which served on Capital, or as Imperial shock troops where needed. In order of seniority (dates of establishment according to the Imperial calendar are given in parentheses), these were:

The Sylean Guard (0)
The Vland Guard
The Gateway Guard
The Ilelish Guard
The Antares Guard
The Imperial Artillery (250)
The Household Cavalry (250)
The Aslan Guard (350)
The Spinward Marches Guard (550)
The Marine Guard (629)
The Solomani Guard (1050)

All but the Imperial Artillery and Household Cavalry were jump troop regiments.

Household Cavalry Regiment: "The Emperor's Hammer"
  Household Cavalry Regiment, with:
    Regimental Headquarters and Headquarters Company, with:
      Headquarters Platoon, with:
        Command Post Section, with:
          1 operational command stand
          1 Imperial Command Grav APC
          1 staff uplink Imperial Command Grav APC
        Communications Section, with:
          1 staff uplink Imperial Command Grav APC
          1 staff radio Imperial Command Grav APC
        Point Defense Section, with:
          1 tactical command TL15 Convertible Air Raft
          3 TL15 Point Defense APCs
        Nuclear Damper Section, with:
          3 tactical command ND Director APCs
          4 TL15 Nuclear Damper APCs
        Scout Section, with:
          1 tactical command TL15 Armed Air Raft
          4 self-ordering TL15 Armed Air Rafts
      Medical Platoon, with:
        1 tactical command stand
        1 TL15 Hospital APC
        1 TL15 Utility Sled
        3 TL15 Ambulance APCs
      Maintenance and Support Platoon, with:
        1 tactical command stand
        2 TL15 Recovery Sleds
        2 TL15 Utility Sleds with maintenance shops
        2 TL15 Utility Sleds
        1 TL15 Convertible Air Raft
    3 Grav Tank Battalions, each with:
      Headquarters Section, with:
        1 operational command Heavy Command Grav Tank
        2 self-ordering Heavy Grav Tanks
      3 Grav Tank Companies (Alpha, Beta, Gamma), each with:
        Company Headquarters, with:
          1 tactical command Heavy Command Grav Tank
          2 self-ordering Heavy Grav Tanks
        3 Grav Tank Platoons, each with:
          1 tactical command Heavy Grav Tank
          4 self-ordering Heavy Grav Tanks
      Fire Support Company (Delta), with:
        Company Headquarters, with:
          1 operational command stand
          1 staff uplink Imperial Command Grav APC
        3 Fire Support Platoons, each with:
          1 tactical command stand
          3 Imperial Fire Support APCs
    Lift Infantry Battalion, with:
      Battalion Headquarters, with:
        1 operational command stand
        1 Imperial Command Grav APC
        2 staff uplink Imperial Command Grav APCs
        1 staff radio Imperial Command Grav APC

3 Lift Infantry Companies, each with:
  Command Post Section, with:
    1 operational command stand
    1 staff uplink Command Grav APC
    1 TL15 Convertible Air Raft
  3 Lift Infantry Platoons, each with:
    1 tactical command stand
    1 Imperial Command Grav APC
    3 Infantry Squads, each with:
      1 tactical command stand
      2 infantry stands
      1 Imperial Grav APC
Grav Tank Company, with:
  Company Headquarters, with:
    1 tactical command Heavy Command Grav Tank
    2 self-ordering Heavy Grav Tanks
  3 Grav Tank Platoons, each with:
    1 tactical command Heavy Grav Tank
    4 self-ordering Heavy Grav Tanks
Artillery Battery, with:
  Battery Headquarters, with:
    1 operational command stand
    1 Imperial FDC Grav APC
  2 MRL Sections, each with:
    1 tactical command MRL Artillery Vehicle
    3 MRL Artillery Vehicles
  Drone Missile Section, with:
   1 operational command RDM Artillery Vehicle
    3 RDM Artillery Vehicles

Notes: All personnel stands are equipped with TL14 heavy battle dress.

Infantry stands are armed with TL14 4.7cm fusion rifles, TL15 portable Tac missiles, and integral TL15 5.1cm fusion rifles. Single figure command stands are also armed with TL14 4.7cm fusion rifles.

The Imperial Command Grav APC is identical to the Imperial FDC APC but without the FDC fitted.

THE EMPEROR'S HAMMER
THE HOUSEHOLD CAVALRY REGIMENT
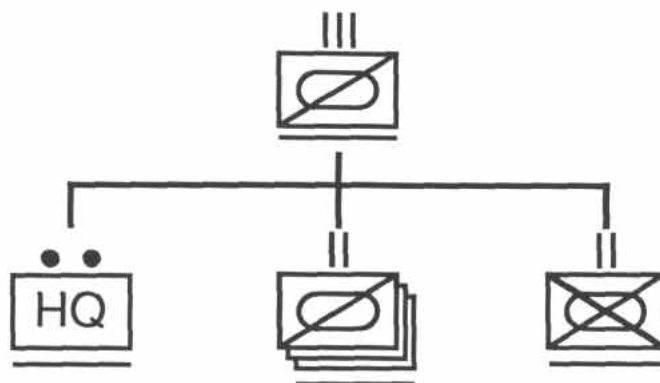
4518th Lift Infantry Regiment (The Duke of Regina's Own Huscarles), circa 1116

Lift Infantry Regiment, with:
- **Regimental Headquarters**, with:
  - 1 operational command stand
  - 1 Imperial Command Grav APC
  - 2 staff uplink Imperial Command Grav APCs
  - 1 Rampart two-seat fighter
- **Regimental Artillery Battery**, with:
  - **Headquarters**, with:
    - 1 operational command stand
    - 1 Imperial FDC Grav APC
  - **MRL Section**, with:
    - 1 tactical command MRL Artillery Vehicle
    - 3 MRL Artillery Vehicles
  - **Drone Missile Section**, with:
    - 1 tactical command RDM Artillery Vehicle
    - 4 RDM Artillery Vehicles
- *Regimental Medical Section, with:*
  - *1 tactical command stand*
  - *4 APCs*
- **Flight Wing**, with:
  - **Wing Headquarters**, with:
    - 1 operational command Rampart two-seat fighter
    - 1 Rampart two-seat fighter
  - **Fighter Squadron**, with:
    - 10 Rampart single-seat fighters
  - *Transport Squadron, with:*
    - *Varies with mission*
  - *Ortillery Squadron, with:*
    - *3 System Defense Boats*
- **1st, 2nd, and 4th Lift Infantry Battalions**, each with:
  - **Battalion Headquarters**, with:
    - 1 operational command stand
    - 1 Imperial Command Grav APC
    - 2 staff uplink Imperial Command Grav APCs
    - 1 staff radio Imperial Command Grav APC
  - **3 Lift Infantry Companies (Alpha, Beta, Gamma)**, each with:
    - **Company Headquarters**, with:
      - 1 operational command stand

- 1 Fire Support APC
- 1 infantry stand
- **Three Lift Infantry Platoons**, each with:
  - **Platoon Headquarters**, with:
    - 1 tactical command stand
    - 1 Fire Support APC
  - **3 Infantry Squads**, each with:
    - 1 tactical command stand
    - 2 infantry stands
    - 1 Imperial Grav APC
- **Grav Tank Company (Delta)**, with:
  - **Company Headquarters**, with:
    - 1 operational command Heavy Grav Command Tank
  - **3 Tank Platoons**, each with:
    - 1 tactical command Heavy Grav Command Tank
    - 3 self-ordering Imperial Heavy Grav Tanks
- **Artillery Battery (Epsilon)**, with:
  - **Battery Headquarters**, with:
    - 1 operational command stand
    - 1 Imperial FDC Grav APC
  - **MRL Section**, with:
    - 1 tactical command MRL Artillery Vehicle
    - 3 MRL Artillery Vehicles
  - **Drone Missile Section**, with:
    - 1 tactical command RDM Artillery Vehicle
    - 3 RDM Artillery Vehicles
- **3rd and 5th Lift Cavalry Squadrons**, each with:
  - **Squadron Headquarters**, with:
    - 1 operational command stand
    - 1 Imperial Command Grav APC
    - 1 staff uplink Imperial Command Grav APC
    - 1 staff radio Imperial Command Grav APC
  - **4 Lift Cavalry Troops (Alpha, Beta, Gamma, Delta)**, each with:
    - **Troop Headquarters**, with:
      - 1 operational command tank
    - **3 Lift Cavalry Platoons**, each with:
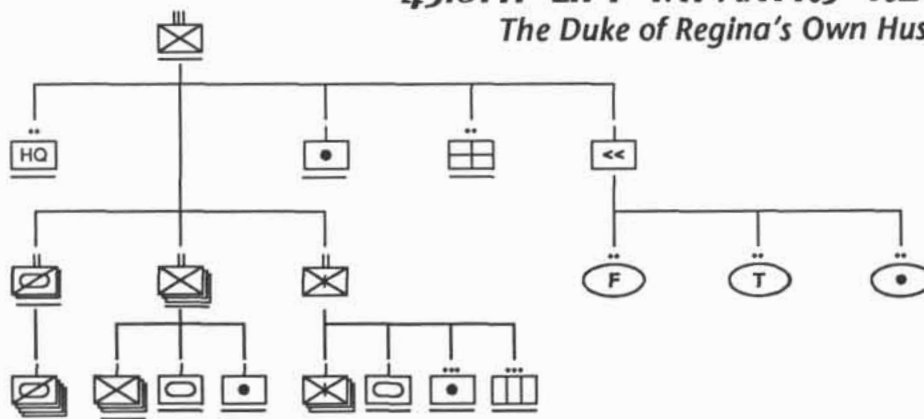   - **Headquarters and Fire Support Squad**, with:
        - 1 tactical command Fire Support APC
      - **2 Tank Squads**, each with:
        - 1 self-ordering Imperial Heavy Grav Tanks

4518TH LIFT INFANTRY REGIMENT
The Duke of Regina's Own Huscarles

Rifle Squad, with:
  1 tactical command stand
  2 infantry stands
  1 Imperial Grav APC
6th Jump Troop Battalion, with:
  Battalion Headquarters, with:
    1 operational command stand
    1 Imperial Command Grav APC
    1 staff uplink Imperial Command Grav APC
    1 staff radio Imperial Command Grav APC
  3 Jump Troop Companies (Alpha, Beta, Gamma), each with:
    Company Headquarters, with:
      1 operational command stand
      1 staff uplink Imperial Command Grav APC
    3 Jump Troop Platoons, each with:
      Platoon Headquarters, with:
        1 tactical command stand
        1 support infantry stand
      3 Jump Troop Squads, each with:
        1 tactical command stand
        2 infantry stands
  Grav Tank Company (Delta), with:
    Company Headquarters, with:
      1 operational command Heavy Grav Command Tank
    3 Tank Platoons, each with:
      1 tactical command Heavy Grav Command Tank
      3 self-ordering Imperial Heavy Grav Tanks
  Artillery Platoon, with:
    1 tactical command stand
    1 Imperial FDC Grav APC
    4 MRL Artillery Vehicles
  Support Platoon, with:
    3 TL15 Utility Sleds
    1 command stand
    6 support stands

4518th Lift Infantry

Notes: All personnel stands are equipped with TL14 heavy battle dress. All infantry stands are armed with TL14 4.7cm fusion rifles, TL15 portable Tac missiles, and integral TL15 5.1cm fusion rifles. Single figure command stands are also armed with TL14 4.7cm fusion rifles. Support infantry stands are armed with TL15 portable Tac missiles and an integral TL15 5.1cm fusion rifle. The Imperial Command Grav APC is identical to the Imperial FDC APC but without the FDC fitted.

Imperial Marine Armored Cavalry Regiment
MArCav Regiment, with:
  Regimental Headquarters, with:
    Command Post Section, with:
      1 operational command stand
      1 Imperial Marine Command APC
      1 staff uplink Imperial Marine Command APC
    Communications Section, with:
      1 staff uplink Imperial Marine Command APC
      1 staff radio Imperial Marine Command APC
    Point Defense Section, with:
      1 tactical command TL15 Convertible Air Raft
      3 TL15 Point Defense APCs
    Nuclear Damper Section, with:
      3 tactical command ND Director APCs
      4 TL15 Nuclear Damper APCs
  3 Armored Cavalry Squadrons, each with:
    Squadron Headquarters and Headquarters Troop, with:
      1 operational command stand
      1 Imperial Marine Command APC
      1 staff uplink Imperial Marine Command APC
      1 staff radio Imperial Marine Command APC
      1 Imperial FDC Grav APC
      1 ND Director APC
      1 TL15 Nuclear Damper APC
      2 self-ordering Imperial Marine Support APCs
    3 Armored Cavalry Troops, each with:
      Troop Headquarters & Headquarters Platoon, with:
        1 operational command stand
        1 Imperial Marine Command APC
        1 staff radio Imperial Marine Command APC
        2 self-ordering Heavy Grav Tanks
      3 Armored Cavalry Platoons, each with:
        Tank Section, with:
          2 self-ordering Heavy Grav Tanks
        Rifle Squad, with:
          1 tactical command stand
          2 infantry stands
          1 Imperial Marine Grav APC
        Scout Section, with:
          2 self-ordering TL15 Armed Air Rafts
  Combat Support Squadron, with:
    Squadron Headquarters, with:
      1 operational command stand
      1 Imperial Marine Command APC
      1 staff uplink Imperial Marine Command APC
      1 staff radio Imperial Marine Command APC
      1 ND Director APC
      1 TL15 Nuclear Damper APC
      2 self-ordering TL15 Armed Air Rafts

Artillery Battery, with:
- **Battery Headquarters Section,** with:
  - 1 operational command Imperial Marine Command APC
  - 1 Imperial Marine FDC APC
  - 3 self-ordering FO TL15 Convertible Air Rafts
- **Battery Security Section,** with:
  - **Section Headquarters,** with:
    - 1 tactical command TL15 Armed Air Raft
  - **2 Marine Squads,** each with:
    - 1 tactical command stand
    - 2 infantry stands
    - 1 Imperial Marine APC
  - **4 Firing Sections,** each with:
    - 1 Imperial Meson Sled
- **Fire Support Battery,** with:
  - **Battery Headquarters &Headquarters Platoon,** with:
    - 1 operational command stand
    - 1 Imperial Marine Command APC
    - 1 staff radio Imperial Marine Command APC
  - **3 Firing Platoons,** each with:
    - 1 tactical command Imperial Marine Support APC
    - 3 Imperial Marine Support APCs
- **Combat Engineer Company,** with:
  - **Headquarters and Headquarters Platoon,** with:
    - 1 operational command stand
    - 1 TL15 Convertible Air Raft
  - **3 Engineer Platoons,** each with:
    - **Headquarters,** with:
      - 1 tactical command stand
      - 1 Imperial Marine Command APC
      - 2 Imperial Engineer Vehicles
    - **3 Engineer Squads,** each with:
      - 1 tactical command stand
      - 2 engineer stands
      - 1 Imperial Marine Grav APC
- *Medical Platoon, with:*
  - *1 tactical command stand*
  - *1 TL15 Hospital APC*
  - *1 TL15 Utility Sled*
  - *3 TL15 Ambulance APCs*
- *Maintenance and Support Platoon, with:*
  - *1 tactical command stand*
  - *2 TL15 Recovery Sleds*
  - *2 TL15 Utility Sleds with maintenance shops*
  - *2 TL15 Utility Sleds*
  - *1 TL15 Convertible Air Raft*
- *Mess and Transport Platoon, with:*
  - *1 tactical command stand*
  - *1 TL15 Utility Sled*
  - *4 TL15 Utility Sleds with field kitchens*
  - *1 TL15 Convertible Air Raft*

Notes: All infantry and single-figure command stands are equipped with TL14 light battle dress. All infantry stands are armed with TL14 4.7cm fusion rifles, TL15 portable Tac missiles and integral TL15 5.1cm fusion rifles. Single-figure command stands are also armed with TL14 4.7cm fusion rifles.

Engineer stands and their command stands are equipped with TL14 heavy battle dress and armed with 4mm gauss rifles and integral TL15 5.1 cm fusion rifles.

Branatian Motorized Rifle Regiment

Rifle Regiment, with:
- **Regimental Headquarters,** with:
  - **Command Post Platoon,** with:
    - 1 operational command stand
    - 1 TL6 Light Truck
    - 2 staff radio TL6 Command Tracks
- **Regimental Direct Support Artillery Battery,** with:
  - **Battery Headquarters,** with:
    - 1 tactical command TL6 FDC Heavy Truck
    - 3 self-ordering FO stands
    - 3 TL6 Light Trucks
  - **3 Firing Sections,** each with:
    - 3 TL6 SP Howitzer-guns
    - 3 ammunition TL6 Heavy Trucks
- **Tank Company,** with:
  - **Company Headquarters,** with:
    - 1 tactical command TL6 Medium Tank
  - **3 Tank Platoons,** each with:
    - 4 TL6 Medium Tanks
- **Antitank Artillery Battery,** with:
  - **Battery Headquarters,** with:
    - 1 tactical command TL6 Tank Destroyer
  - **3 Tank Destroyer Sections,** each with:
    - 3 TL6 Tank Destroyers
- **3 Rifle Battalions,** each with:
  - **Headquarters and Headquarters Platoon,** with:
    - **Battalion Headquarters,** with:
      - 1 operational command stand
      - 1 staff radio TL6 Command Track
      - 1 TL6 Light Truck
    - **Machinegun Section,** with:
      - 4 HMG stands
      - 2 TL6 Medium Trucks
    - **Mortar Section,** with:
      - 4 TL6 10cmL15 mortar stands
      - 4 TL6 Medium Trucks
      - 1 self-ordering FO stand
      - 1 light truck
  - **Transportation Company,** with:
    - **Company Headquarters,** with:
      - 1 tactical command TL6 Light Truck
    - **4 Truck Platoons,** each with:
      - 11 TL6 Medium Trucks
  - **4 Rifle Companies,** each with:
    - **Headquarters and Headquarters Platoon,** with:
      - **Company Headquarters Section,** with:
        - 1 command infantry stand
        - 1 TL6 Light Truck
      - **Weapons Section,** with:
        - 2 TL6 8cmL10 mortar stands
        - 2 TL6 Light Trucks
        - 2 LMG stands
    - **3 Rifle Platoons,** each with:
      - **Platoon Headquarters,** with:
        - 1 LMG stand
      - **3 Rifle Squads,** each with:
        - 1 support infantry stand
        - 2 infantry stands

Notes: Infantry stands are equipped with TL5 helmets and TL6 7mm autorifles (firing ball ammunition) plus TL5 rifle grenades and TL6 hand grenades. Command infantry and support infantry stands have integral TL6 ATRLs. LMG stands are equipped with tripod-mounted TL6 7mm LMGs, and HMG stands are equipped with TL6 13mm HMGs. The TL6 FDC has a range of 25 km.

Kidan Armored Cavalry Battalion

Armored Cavalry Battalion, with:
- **Headquarters,** with:
  - **Command Post Section,** with:
    - 1 operational command stand
    - 1 TL8 Voltigeur APC
    - 1 staff radio Voltigeur APC
- **3 Armored Cavalry Companies,** each with:
  - **Headquarters and Headquarters Platoon,** with:
    - 1 operational command stand
    - 1 staff radio Voltigeur APC
    - 1 Range Truck
    - 2 TL8 Voltigeur APCs with TL8 8cmL10 mortars
    - 2 TL8 Lancer Missile Carriers
  - **3 Armored Cavalry Platoons,** each with:
    - **Headquarters Section,** with:
      - 1 tactical command TL8 Prairie Fire Fast Tank
    - **Tank Squad,** with:
      - 2 TL8 Prairie Fire Fast Tanks
    - **Direct Fire Squad,** with:
      - 2 TL8 Lancer Missile Carriers
    - **Rifle Squad,** with:
      - 4 infantry stands
      - 1 MG stand
      - 1 ATRL stand
      - 1 TL8 Voltigeur APC
    - **Scout Squad,** with:
      - 4 self-ordering Range Trucks with 5mm Rotary MGs

Notes: All personnel stands are equipped with TL8 ballistic weave helmets and body suits. Infantry stands are armed with TL7 9mm rifles firing TL8 DS ammunition, with hand grenades, TL8 RAM grenades and integral TL8 ATRLs.

MG stand is equipped with TL8 7mm rotary gun, and ATRL stand is equipped with TL8 ATRLs.

1st Marine Brigade, RCMC

Marine Brigade, with:
- **Brigade Headquarters,** with:
  - **Command Post Platoon,** with:
    - 1 operational command stand
    - 1 TL12 Convertible Air Raft
    - 2 staff uplink TL11 G-Carriers
- **1st Marine Battalion,** with:
  - **Headquarters and Headquarters Company,** with:
    - **Battalion Headquarters,** with:
      - 1 operational command stand
      - 1 staff radio TL11 G-Carrier
      - 1 TL12 Convertible Air Raft
  - **3 Light Lift Companies,** each with:
    - **Headquarters and Headquarters Platoon,** with:
      - **Company Headquarters Section,** with:
        - 1 operational command grav belt stand
        - 1 staff radio TL11 G-Carrier
        - 1 TL12 Convertible Air Raft
      - **Fire Support Section,** with:
        - 1 tactical command TL12 Convertible Air Raft with TL9 13mm HMG
        - 1 TL12 Convertible Air Raft with TL9 13mm HMG
        - 2 TL12 Convertible Air Rafts with TL12 8cmL10 mortars
    - **3 Line Platoons,** each with:
      - **Platoon Headquarters,** with:
        - 1 tactical command grav belt stand
        - 1 ARL stand
        - 1 SSL stand
        - 2 TL12 Convertible Air Rafts
      - **3 Rifle Squads,** each with:
        - 1 command grav belt infantry stand
        - 2 grav belt infantry stands
        - 3 TL12 Convertible Air Rafts
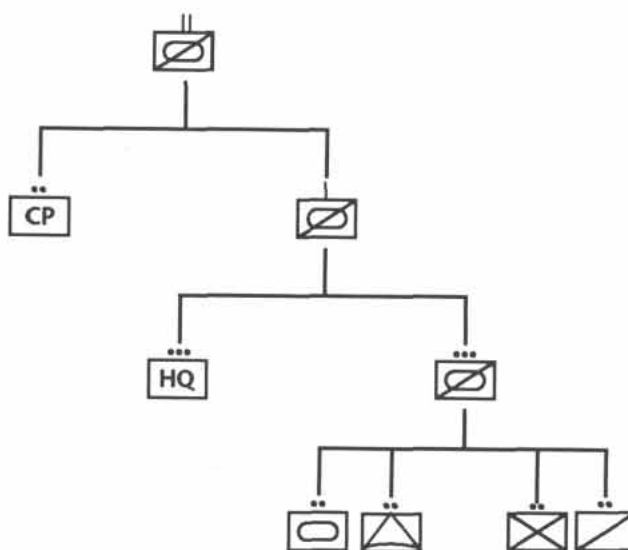- **2d Marine Battalion,** with:
  - **Headquarters and Headquarters Company,** with:
    - **Battalion Headquarters,** with:
      - 1 operational command stand

KIDAN ARMORED CAVALRY BATTALION

Apparently the Kidan military tradition does not call for using the traditional terms "squadron" and "troop" for cavalry units.

1 staff radio TL11 G-Carrier
1 TL12 Convertible Air Raft
2 Medium Companies, each with:
  Headquarters and Headquarters Platoon, with:
    Company Headquarters Section, with:
      1 operational command stand
      1 staff radio TL11 G-Carrier
      1 TL12 Convertible Air Raft
    Fire Support Section, with:
      1 tactical command TL13 Pyrrhus Support Sled
      1 TL13 Pyrrhus Support Sled
      2 TL12 Convertible Air Rafts with TL12 8cmL10 mortars
  3 Line Platoons, each with:
    Platoon Headquarters, with:
      1 tactical command stand
      1 ARL stand
      1 SSL stand
      2 TL12 Convertible Air Rafts
    3 Rifle Squads, each with:
      1 command infantry stand
      3 infantry stands
      1 TL9 Grav APC
2 Heavy Companies, each with:
  Headquarters and Headquarters Platoon, with:
    Company Headquarters Section, with:
      1 operational command stand
      1 staff radio TL11 G-Carrier
    Fire Support Section, with:
      1 tactical command TL14 Intrepid/125 Grav Tank
      1 TL14 Intrepid/125 Grav Tank
      2 TL12 Convertible Air Rafts with TL12 8cmL10 mortars
  3 Line Platoons, each with:
    Platoon Headquarters, with:
      1 tactical command stand
      1 TL11 Tac missile stand
      1 Plasma stand
      2 TL12 Convertible Air Rafts
  3 Heavy Rifle Squads, each with:

1 command heavy infantry stand
3 heavy infantry stands
1 TL9 Grav APC
3d Marine Battalion, with:
  Headquarters and Headquarters Company, with:
    Battalion Headquarters, with:
      1 operational command stand
      1 staff radio TL11 G-Carrier
      1 TL12 Convertible Air Raft
  2 Drop Companies, each with:
    1 operational command stand
    1 SSL stand
    1 TL11 Tac missile stand
    1 Plasma stand
    3 Drop Platoons, each with:
      1 tactical command stand
      3 Drop Squads, each with:
        1 tactical command infantry stand
        2 infantry stnads
    1 Transport Platoon, with:
      1 tactical command stand
      9 TL9 Grav APCs *or*
      9 TL12 Fury Assault Landers
  1 Special Operations Group, with:
    1 operational command grav belt stand
    1 TL12 Convertible Air Raft
    Insertion Section, with:
      1 tactical command grav belt stand
      3 Astrin Grav APCs
      3 TL12 Convertible Air Rafts
      3 Fury Assault Landers
    Tactical Section, with:
      1 tactical command stand
      3 LSW stands
      6 self-ordering grav belt Sniper stands (single figure)
      3 self-ordering grav belt FO stands
      3 self-ordering grav belt sensor stands
      6 self-ordering grav belt infantry stands

1ST MARINE BRIGADE, REFORMATION COALITION MARINE CORPS
"Semper Out Front, Baby"
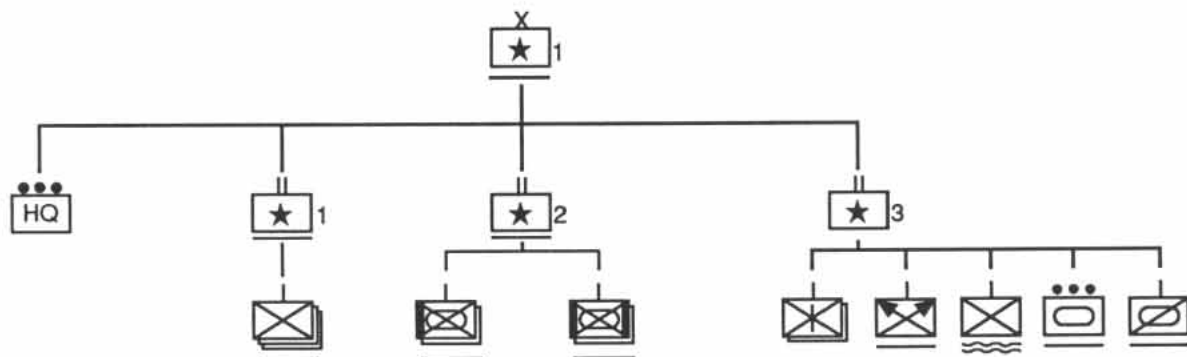
1 Aquatic Company, with:
  Company Headquarters, with:
    1 Schalli operational command stand
    2 Schalli weapons stands
    2 self-ordering Schalli infiltration stands
  3 Aquatic Platoons, with:
    1 Schalli tactical command stand
    2 Wet Squads, each with:
        1 Schalli command infantry stand
        2 Schalli infantry stands
    Powered Squad, with:
        1 Schalli command powered infantry stand
        2 Schalli powered infantry stands
Armored Platoon, with:
  1 tactical command TL14 Intrepid/120 Grav Tank
  2 TL14 Intrepid/120 Grav Tanks
  2 TL14 Intrepid/125 Grav Tanks
Speeder Troop, with:
  Troop Headquarters, with:
    1 operational command Mongoose Attack Speeder
    1 staff radio TL11 G-Carrier
  Heavy Platoon, with:
    1 tactical command Mongoose Attack Speeder
    2 self-ordering Mongoose Attack Speeders
  Light Platoon, with:
    1 tactical command Ferret Attack Speeder
    2 self-ordering Ferret Attack Speeders

Notes: This unit does not deploy tactically. Rather, elements of squad, platoon or company size are detached for specific operations. The three battalions are specialized by mission: 1st Battalion for light lift infantry, 2nd Battalion for protected (battle dress) infantry, and 3rd Battalion for special missions, including specialized vehicles.

1st Battalion: All grav belt stands are equipped with grav belts and TL9 combat environment suits. All single-figure command stands are armed with TL13 personal defense lasers, while infantry stands are equipped with TL13 4cm CLC laser rifles, TL9 RAM grenades and hand grenades.

ARL and SSL stands are equipped with TL13 personal defense lasers as secondary weapons.

2nd Battalion: Medium infantry stands are equipped with TL12 Reformation Coalition Light Battle Dress, and heavy infantry stands are equipped with TL12 Reformation Coalition Heavy Battle Dress.

Medium infantry stands are armed with TL10 7mm ACRs, TL9 RAM grenades and hand grenades, with an integral 4mm gauss SAW. Command medium infantry stands have an integral ARL in place of the SAW.

Heavy infantry stands are armed with TL12 4.3cm plasma rifles and disposable TL9 Nail Tac missiles with integral ARLs. Command heavy infantry stands have an integral TL14 4.7cm fusion rifle. Tac missile stands are armed with TL11 manportable Tac missiles; plasma stands are armed with 10cm plasma bazookas.

All personnel stands are drop-trained. When dropped into combat, they enter without their vehicles, but each stand additionally carries four shots of TL9 Lyrebird Tac missiles into combat with it (each single-figure stand carries one shot of Lyrebirds).

3rd Battalion: All personnel stands in the drop companies are equipped with TL12 Reformation Coalition Light Battle Dress. They are armed with TL10 7mm ACRs, TL9 RAM grenades, hand grenades, and integral 2cm LAGs. Command Infantry Stands are armed with integral ARLs.

Tac missile stands are armed with TL11 manportable Tac missiles; plasma stands are armed with 10cm plasma bazookas.

All personnel stands in the drop companies are drop-trained. When dropped into combat, they enter without their vehicles, but each stand additionally carries four shots of TL9 Lyrebird Tac missiles into combat with it (each single-figure stand carries one shot of Lyrebirds).

Personnel stands in the Special Operations Group are equipped with TL9 combat environment suits. Sniper stands are equipped with TL12 grav belts and WSV goggles (40cm) and are armed with TL6 13mm sniper rifles. FO stands are equipped with grav belts, WSV goggles, 3km laser designators, 30km radios and TL13 personal defense lasers. Sensor stands are equipped with grav belts, 3km passive EMS sensors, 3km maser communicators, and TL13 personal defense lasers. Grav belt infantry stands are equipped with grav belts, WSV goggles (40cm), 4cm CLC laser rifles and TL9 RAM grenades.

THE SPEARHEAD BRIGADE, RCMC
"SECOND TO NONE"

SPEARHEAD

HQ

4   5   6   7   8

HQ
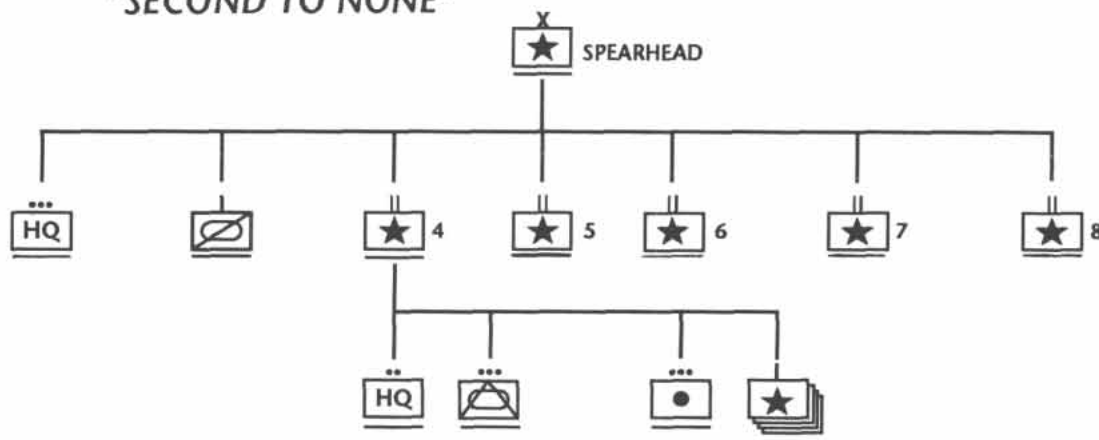
(2d) "Spearhead" Marine Brigade, Reformation Coalition Marine Corps

Marine Brigade, with:
Brigade Headquarters, with:
Command Post Platoon, with:
1 operational command stand
1 TL9 Grav APC
2 staff uplink TL9 Grav Sleds
Brigade Scout Troop, with:
Troop Headquarters, with:
1 operational command Mongoose Attack Speeder
1 staff radio TL9 Grav Sled
3 Cavalry Platoons, each with:
1 tactical command Mongoose Attack Speeder
2 self-ordering Mongoose Attack Speeders
2 self-ordering Ferret Attack Speeders

The Spearhead Brigade

Although part of the RCMC, the Spearhead Brigade is made up entirely of Oriflammen personnel, drawn from the ranks of the five Oriflammen Marine divisions. The vehicles of the brigade are marked not with the RC man-wheel, but rather the Oriflammen Marine Corps Insignia. This insignia consists of a black lightning bolt, symbolizing stealth, speed and violence, horizontally bisecting a circle. The upper half of the circle is blue, symbolizing the cold of space, from whence the unit strikes, while the lower half is red, representing the heat of ground combat into which the unit is deployed.

The vehicles of the unit are painted with shark's mouth motifs, and are given suitably toothy names, such as "Tiger Shark," "Dragon Breath," etc. Vehicles are also given three-digit tactical codes within each battalion. The first digit is the number of the company in the battalion (with the headquarters company being 0 and the line companies being 1-4); the second digit is the platoon number within the company (with the tank platoon being 0, the headquarters platoon being 1, and the rifle platoons being 2-4); and the third digit is the vehicle number within the platoon.

Although only authorized a strength of three Intrepids per tank platoon, several of the brigade's platoons boast unauthorized levels of four grav tanks, in keeping with the long-standing Oriflammen doctrine of firepower superiority.

Although the Spearhead's battalions are numbered 4 through 8 as compared to 1 to 3 in the RCMC 1st Marine Brigade, no member of the brigade ever refers to the brigade as anything other than "The Spearhead Brigade." The unit's motto is "Second to None."

4th, 5th, 6th, 7th, and 8th Marine Battalions, each with:
Headquarters and Headquarters Company, with:
Battalion Headquarters, with:
1 operational command stand
1 staff radio TL9 Grav Sled
1 TL12 Convertible Air Raft
Tank Destroyer Platoon, with:
1 tactical command TL14 Intrepid/120 Grav Tank
3 TL14 Intrepid/120 Grav Tanks
Indirect Fire Platoon, with:
1 tactical command stand
1 FDC TL9 Grav Sled
1 TL12 Convertible Air Raft
4 TL12 Convertible Air Rafts with TL12 8cmL10 mortars
2 self-ordering FO TL12 Convertible Air Rafts
4 Line Companies, each with:
Headquarters and Headquarters Platoon, with:
Company Headquarters Section, with:
1 operational command stand
1 staff radio TL9 Grav Sled
1 TL12 Convertible Air Raft
Fire Support Section, with:
1 tactical command TL13 Pyrrhus Support Sled
1 TL13 Pyrrhus Support Sled
2 TL12 Convertible Air Rafts w/TL12 8cmL10 mortars
Tank Platoon, with:
1 tactical command TL14 Intrepid/125 Grav Tank
2 or 3 TL14 Intrepid/125 Grav Tanks
3 Rifle Platoons, each with:
Platoon Headquarters, with:
1 tactical command stand
1 TL12 Convertible Air Raft with ARL
1 TL12 Convertible Air Raft with SSL
2 Rifle Squads, each with:
1 command infantry stand
3 infantry stands
1 TL9 Grav APC
1 Heavy Rifle Squad, with:
1 command heavy infantry stand
3 heavy infantry stands
1 TL9 Assault Sled

Notes: Heavy infantry stands are equipped with TL12 Reformation Coalition Heavy Battle Dress. All other personnel stands are equipped with TL12 Reformation Coalition Light Battle Dress.

Heavy infantry stands are armed with 4mm gauss rifles, TL9 RAM rifle grenades and disposable TL9 Nail Tac missiles. Each heavy infantry stand has an integral 4mm gauss SAW, while each command heavy infantry stand has an integral TL12 4.3cm plasma rifle.

Normal (nonheavy) infantry stands are armed with TL10 7mm ACRs, TL9 RAM rifle grenades and TL9 hand grenades, and an integral 2.5cm low-velocity grenade launcher. Command infantry stands have integral 10cm plasma bazookas in place of the GLs.

All personnel stands are drop-trained. When dropped into combat, they enter without their vehicles, but each stand additionally carries four shots of TL9 Lyrebird Tac missiles into combat with it (each single-figure stand carries one shot of Lyrebirds).

TL9 FDCs have a range of 40 km.

3d Marine Brigade, RCMC
Marine Brigade, with:
  Brigade Headquarters, with:
    Command Post Platoon, with:
      1 operational command stand
      1 TL12 Convertible Air Raft
      2 staff uplink TL11 G-Carriers
  Brigade Scout Troop, with:
    Troop Headquarters, with:
      1 operational command Mongoose Attack Speeder
      1 staff radio TL11 G-Carrier
    3 Cavalry Platoons, each with:
      1 tactical command Mongoose Attack Speeder
      2 self-ordering Mongoose Attack Speeders
      2 self-ordering Ferret Attack Speeders
  11th Marine Battalion (Training Cadre), with:
    Training unit only, no tactical units
  9th and 10th Marine Battalions, each with:
    Headquarters and Headquarters Company, with:
      Battalion Headquarters, with:
        1 operational command stand
        1 staff radio TL11 G-Carrier
        1 TL12 Convertible Air Raft
      Tank Destroyer Platoon, with:
        1 tactical command TL14 Intrepid/120 Grav Tank
        3 TL14 Intrepid/120 Grav Tanks
      Indirect Fire Platoon, with:
        1 tactical command stand
        1 FDC TL11 G-Carrier
        1 TL12 Convertible Air Raft
        4 TL12 Convertible Air Rafts with TL12 8cmL10 mortars
        2 self-ordering FO TL12 Convertible Air Rafts
    4 Line Companies, each with:
      Headquarters and Headquarters Platoon, with:
        Company Headquarters Section, with:
          1 operational command stand
          1 staff radio TL11 G-Carrier
          1 TL12 Convertible Air Raft
         Fire Support Section, with:
          1 tactical command TL13 Pyrrhus Support Sled
          1 TL13 Pyrrhus Support Sled
          2 TL12 Convertible Air Rafts w/TL12 8cmL10 mortars

Tank Platoon, with:
  1 tactical command TL14 Intrepid/125 Grav Tank
  2 TL14 Intrepid/125 Grav Tanks
3 Line Platoons, each with:
  Platoon Headquarters, with:
    1 tactical command stand
    1 TL12 Convertible Air Raft with ARL
    1 TL12 Convertible Air Raft with SSL
  2 Rifle Squads, each with:
    1 command infantry stand
    3 infantry stands
    1 TL9 Grav APC
  1 Heavy Rifle Squad, with:
    1 command heavy infantry stand
    3 heavy infantry stands
    1 TL9 Grav APC

Notes: Heavy infantry stands are equipped with TL12 Reformation Coalition Heavy Battle Dress. All other personnel stands are equipped with TL12 Reformation Coalition Light Battle Dress.

Heavy infantry stands are armed with 4mm Gauss Rifles, TL9 RAM rifle grenades and disposable TL9 Nail Tac missiles. Each heavy infantry stand has an integral 4mm gauss SAW, while each command heavy infantry stand has an integral TL12 4.3cm plasma rifle.

Normal (nonheavy) infantry stands are differently armed depending upon their battalion. Infantry stands of the 9th Marine Battalion are armed with the TL10 7mm ACR with hand grenades, TL9 RAM grenades and integral 2.5cm low-velocity grenade launchers.

Infantry stands of the 10th Marine Battalion are armed with the TL10 7mm CMWS rifle and hand grenades, TL9 RAM grenades and integral 7mm CMWS SAWs.

Command infantry stands in the 9th Battalion have integral TL9 Nail Tac missiles, while command infantry stands in the 10th battalion have integral 10mm plasma bazookas.

All separate command stands in the brigade are armed with the TL10 7mm CMWS carbine.

All personnel stands are drop-trained. When dropped into combat, they enter without their vehicles, but each stand additionally carries four shots of TL9 Lyrebird Tac missiles into combat with it (each single-figure stand carries one shot of Lyrebirds).

3d MARINE BRIGADE, RCMC
"Check Six, Sucker"
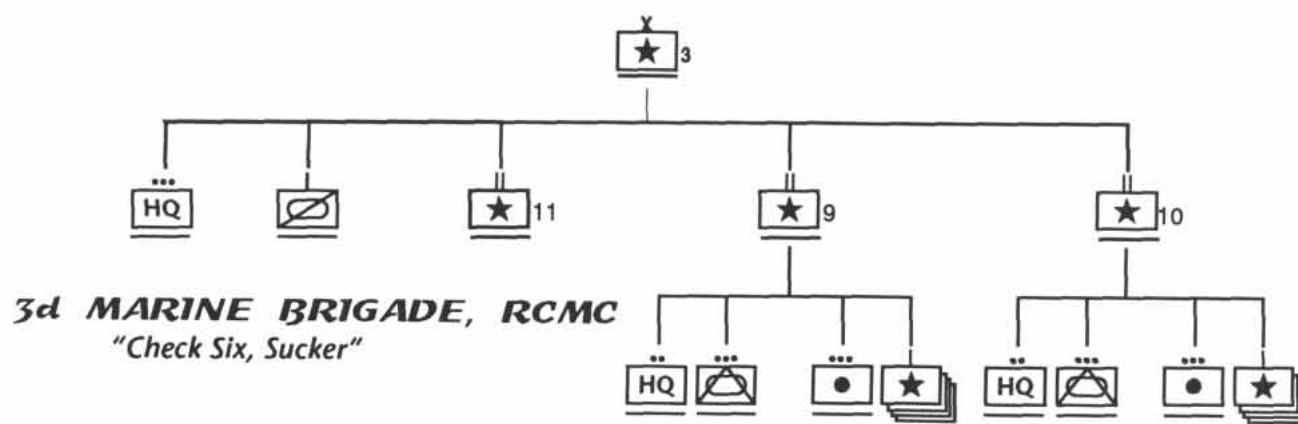
Oriflamme Marine Regiment

Marine Regiment, with:
  Regimental Headquarters, with:
    Command Post Platoon, with:
      1 operational command stand
      1 TL9 Grav APC
      2 staff uplink TL9 Grav APC
  Regimental Cavalry Squadron, with:
    Squadron Headquarters, with:
      1 operational command TL9 Grav Tank
      1 staff uplink TL9 Grav APC
    Rocket Platoon, with:
      1 operational command stand
      1 FDC TL9 Grav APC
      3 self-ordering FO TL9 Cav Vehicles
      3 TL9 MRL Sleds
      3 ammunition TL9 Grav Sleds
    3 Cavalry Troops, each with:
      Troop Headquarters, with:
        1 operational command TL9 Grav Tank
        1 staff radio TL9 Grav APC
      3 Cavalry Platoons, each with:
        1 tactical command TL9 Grav Tank
        1 self-ordering TL9 Grav Tank
        2 self-ordering TL9 Cav Vehicles
        2 self-ordering TL9 Cav Missile Vehicles
  Regimental Rocket Battery, with:
    Battery Headquarters, with:
      1 operational command stand
      1 TL9 Light U Sled
      1 FDC TL9 Grav APC
      3 self-ordering FO TL9 Cav Vehicles
    3 Firing Sections, each with:
      1 tactical command TL9 MRL Sled
      2 TL9 MRL Sleds
      3 ammunition TL9 Grav Sleds
  Tank Company, with:
    Company Headquarters, with:
      1 operational command TL9 Grav Tank
      1 staff radio TL9 Grav APC
    3 Tank Platoons, each with:
      1 tactical command TL9 Grav Tank
      3 TL9 Grav Tanks

  Tank Destroyer Platoon, with:
    1 tactical command TL9 Grav Tank Destroyer
    3 TL9 Grav Tank Destroyers
  3 Marine Battalions, each with:
    Headquarters and Headquarters Company, with:
      Battalion Headquarters, with:
        1 operational command stand
        1 staff radio TL9 Grav APC
        1 TL9 Light U Sled
      Direct Fire Platoon, with:
        1 command infantry stand
        1 TL9 Light U Sled
        4 HMG stands
        4 TL9 Light U Sleds
      Indirect Fire Platoon, with:
        1 command infantry stand
        1 TL9 Light U Sled
        4 TL9 12cmL10 mortar stands
        4 TL9 Light U Sleds
        2 self-ordering TL9 Cav Vehicles
    4 Line Companies, each with:
      Headquarters and Headquarters Platoon, with:
        Company Headquarters Section, with:
          1 operational command stand
          1 staff radio TL9 Grav APC
          1 TL9 Light U Sled
        Weapons Section, with:
          2 TL9 8cmL10 mortar stands
          2 LMG stands
          4 Nail stands
          8 TL9 Light U Sleds
      3 Line Platoons, each with:
        Platoon Headquarters, with:
          1 command infantry stand
          1 Nail stand
          2 TL9 Light U Sleds
        3 Rifle Squads, each with:
          1 support infantry stand
          3 infantry stands
   1 TL9 Assault APC

Notes: All personnel stands are equipped with TL12 Reformation Coalition Light Battle Dress. Infantry stands are armed with TL10 7mm ACRs, TL9 RAM rifle grenades and TL9 hand grenades, and an integral 2cm LAG. Support infantry and command infantry stands have integral 10cm plasma bazookas in place of the LAGs.

LMG stands are armed with TL9 7.5mm MMGs, and HMG stands are armed with TL9 15mm HMGs. Nail stands are armed with TL9 Nail Tac missiles. Mortar, LMG, HMG and Nail stands all have TL9 7.6mm SMGs as secondary weapons.

All personnel stands are drop-trained. When dropped into combat, they enter without their vehicles, but each stand additionally carries four shots of TL9 Lyrebird Tac missiles into combat with it (each single-figure stand carries one shot of Lyrebirds).

ORIFLAMMEN MARINE REGIMENT
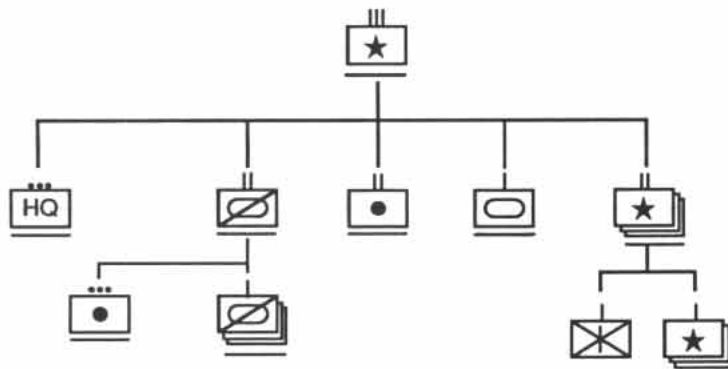
Zhodani Commando Groupment

Commando Groupment, with:
 Headquarters and Headquarters Squadron, with:
  Command Post Detachment, with:
   Headquarters Group, with:
    1 operational command stand
    1 Command Sled
    1 staff uplink Command Sled
   Intelligence Section, with:
    1 self-ordering psionic intel stand
    1 Command Sled
   Communications Team, with:
    1 staff uplink LMR Sled
   Computer Team, with:
    1 staff uplink Command Sled
   Electronic Warfare Team, with:
    1 self-ordering EW Sled
   Communications Platoon, with:
    1 staff uplink Meson Sled
    1 staff uplink LMR Sled
    1 staff radio LMR Sled
  Medical Detachment, with:
   1 tactical command stand
   1 Hospital Sled
   3 self-ordering Ambulance Sleds

 Nuclear Damper Detachment, with:
  1 tactical command stand
  1 Light Utility Sled
  2 Nuclear Damper Sleds
 Point Defense Detachment, with:
  1 tactical command Point Defense Sled
  3 Point Defense Sleds
 3 Commando Squadrons, each with:
  Squadron Headquarters, with:
   1 operational command psionic teleport stand
  Transport Detachment, with:
   1 tactical command stand
   12 Grav APCs
   1 staff uplink Command Sled
  3 Commando Detachments, each with:
   1 tactical command psionic teleport stand
   **4 Commando Groups**, each with:
    1 tactical command psionic teleport stand
    1 psionic teleport support infantry stand
    2 teleport infantry stands

Notes: All stands are equipped with TL14 battle dress. Each stand is equipped with TL13 4.7cm noncompensated plasma rifles. Each support infantry stand additionally has an integral TL14 4.7cm noncompensated fusion rifle.

ZHODANI CONSULAR GUARD
COMMANDO GROUPMENT
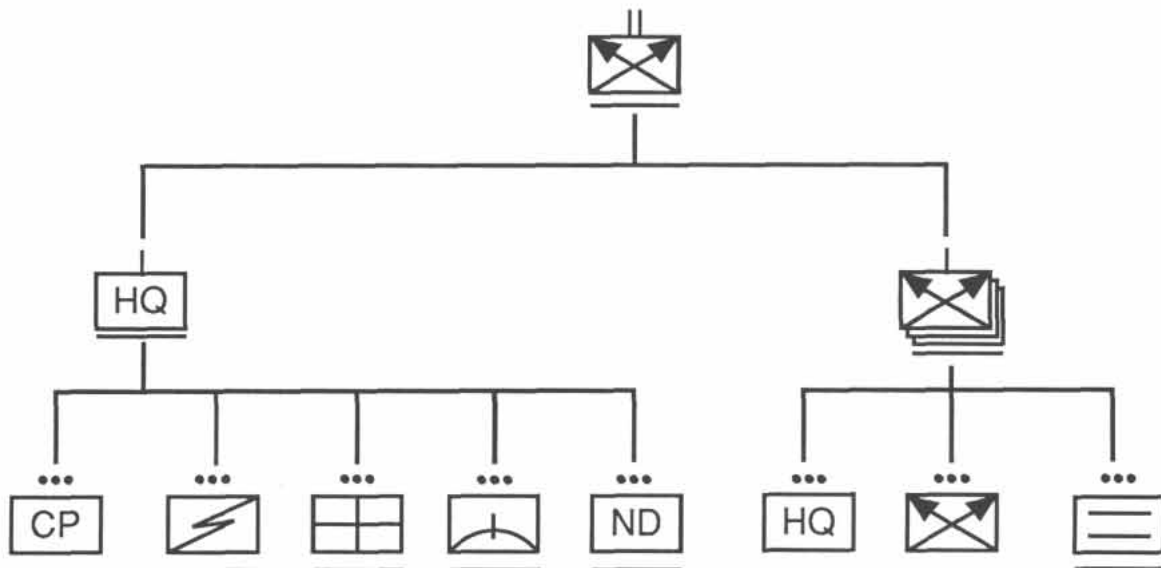
Zhodani Lift Infantry Battalion
Lift Infantry Battalion, with:
  Headquarters and Headquarters Company, with:
    Command Post Platoon, with:
      Headquarters Group, with:
        1 operational command stand
        1 Command Sled
        1 staff uplink Command Sled
      Intelligence Section, with:
        1 self-ordering psionic intel stand
        1 Command Sled
      Communications Team, with:
        1 staff uplink LMR Sled
      Computer Team, with:
        1 staff uplink Command Sled
      Electronic Warfare Team, with:
        1 self-ordering EW Sled
    Communications Platoon, with:
      1 staff uplink Meson Sled
      1 staff uplink LMR Sled
      1 staff radio LMR Sled
    Psion Detachment, with:
      Command Group, with:
        1 operational command stand
        2 Utility Sleds
        1 Light Utility Sled
      Scout Group, with:
        1 tactical command psionic recon Scout Sled
        3 self-ordering psionic recon Scout Sleds
      Recon Group, with:
        1 tactical command stand
        8 self-ordering psionic recon stands
      Assault Group, with:
        1 tactical command stand
        6 psionic scrambler stands
    Medical Detachment, with:
      1 tactical command stand
      1 Hospital Sled
      3 self-ordering Ambulance Sleds
    Nuclear Damper Detachment, with:
      1 tactical command stand
      1 Light Utility Sled
      2 Nuclear Damper Sleds
    Point Defense Detachment, with:
      1 tactical command Point Defense Sled
      3 Point Defense Sleds
  4 Rifle Companies, each with:
    Headquarters and Weapons Platoon, with:
      Headquarters Team, with:
        1 operational command stand
        1 staff uplink Command Sled
        1 self-ordering FO stand
      Electronic Warfare Team, with:
        1 self-ordering EW Sled
      Recovery Team, with:
        1 self-ordering Recovery Sled
      Fire Direction Center Team, with:
        1 self-ordering FDC Sled
      Indirect Fire Team, with:
        1 self-ordering MRL Drop Sled
      Direct Fire Team, with:
        1 self-ordering Gun Sled
    3 Line Platoons, each with:
      Headquarters Team, with:
        1 tactical command stand
        1 Command Sled
      Point Defense Team, with:
   1 Point Defense Sled
      3 Rifle Squads, each with:
        1 tactical command stand
        1 support infantry stand
        1 infantry stand
        1 Grav APC

Notes: Two configurations are listed below—the standard, most common level of equipment, and an upgraded level of equipment, issued to lift infantry battalions that are organic to grav tank, mechanized and lift cavalry regiments.

Standard Level: All stands are equipped with TL14 combat armor. Each stand is equipped with 4mm gauss rifles with RAM HEAP grenades. Each support infantry stand additionally has an integral TL14 4.7cm compensated fusion rifle.

Upgraded Level: All stands are equipped with TL14 battle dress. Each stand is equipped with TL13 4.7cm noncompensated plasma rifles. Each support infantry stand additionally has an integral TL14 4.7cm noncompensated fusion rifle.

Scrambler stands have range bands and rates of fire of 100 cm: 3 (short), 200 cm: 2 (medium), 400 cm: 1 (long), and 800 cm: 1 (extreme). Psionic recon (clairvoyant) stands have clairvoyant "sensor" range bands identical to scramblers above, but no ROF.

ZHODANI LIFT INFANTRY BATTALION
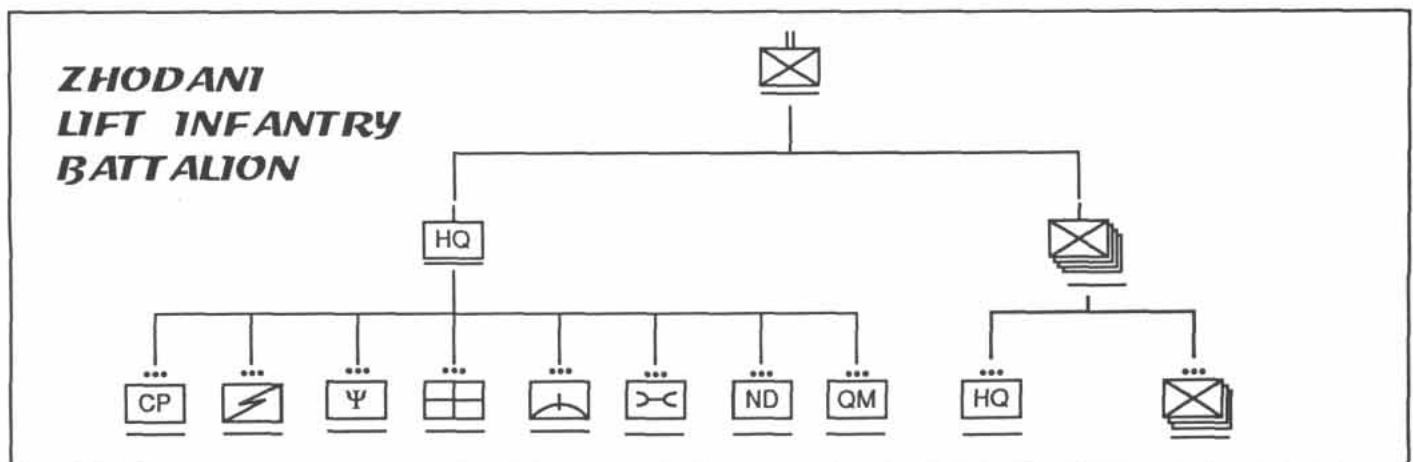
When designing vehicles for **Striker II** using the design sequences in **Fire, Fusion & Steel**, the **Traveller** technical architecture sourcebook, the following additional guidelines should be used.

GRAV VEHICLE DENSITY AND G RATING

When determining lift vehicle movement, thrust is usually divided by 10 times the vehicle's volume in displacement tonnes to determine G rating. However, this procedure should not be used for very dense grav vehicles, those massing 15.5 or more mass tonnes per displacement ton.

Divide the grav vehicle's loaded mass by its volume in displacement tonnes. If the result is less than 15.5, use the normal procedure described above. If the result is 15.5 or more, G rating is determined by dividing thrust in tonnes by the vehicle's loaded mass in tonnes.

TURRET SIZE

In some cases, designating a turret as a small turret (and therefore requiring its components to take up 10 times their volume) results in the turret being larger than the maximum 10% of vehicle volume. However, when recalculating the turret's volume as a main turret (usually requiring its components to take up 2 times their volume), the turret then falls below the 10% threshold and becomes classified as a small turret again. In such cases, threat the turret as a main turret (using the main turret volume multiplier), but this turret must be the only turret on that vehicle, and the vehicle is then classified as having a *small turret* for purposes of target type in the vehicle damage sequence.

DIRECT ENERGY INPUT LASER HOMOPOLAR GENERATORS

Large direct energy input lasers with trainable focal arrays may be designed for turret mounting in ground vehicles. When fitting these weapons to the vehicles, the laser' homopolar generator need not be placed in the turret, nor have its mass accounted for in the weapon stabilization calculations.

NUCLEAR DAMPERS

The design sequence in **Fire, Fusion & Steel** is based on the assumption that the dampers will be used for space combat, and assumes a rate of fire of one shot per three minutes (10 shots each 30 minutes). Higher rates of fire require a larger power input and a larger nuclear damper. Choose the ground combat rate of fire desired from the table below, and find the volume multiplier that corresponds to it. This volume multiplier is applied to the volume value derived from the Nuclear Damper Design table on page 57 of **Fire, Fusion & Steel**.

The input multiplier is applied to the MW required by the damper from the power plant. Note that this power multiplier is applied *after* the volume multiplier above is applied, and not in combination with it.

If the nuclear damper is to be fitted with weapon stabilization, only its basic mass (before the volume multiplier is applied) is counted against the stabilization requirement.

For example, a TL15 3000km short-range nuclear damper with a ground ROF of SA1 has a volume of 13.2 m³, draws 10.8 MW, and costs 16.8 MCr (exclusive of beam pointer and workstation). For purposes of fitting weapon stabilization, it has a stabilized mass of 3.3 tonnes (plus its beam pointer mass of 0.15 tonnes).

This procedure may also be used to design starship-mounted nuclear dampers. In this case the increased rate of fire is reflected in –Diff Mods to nuclear damper task rolls in space combat.

Space Cbt ROF	Ground Cbt ROF	Vol Mult	Input Mult	Space –Diff Mods
10	1/36	×1	×1	—
30	1/12	×1	×3	—
(50)	N/A	N/A	N/A	–1
60	1/6	×1	×6	–1
90	1/4	×1	×9	–1
(100)	N/A	N/A	N/A	–2
120	1/3	×2	×12	–2
180	1/2	×2	×18	–2
(200)	N/A	N/A	N/A	–3
360	SA1	×4	×36	–3
(400)	N/A	×4	N/A	–4
720	SA2	×8	×72	–4
(800)	N/A	×8	N/A	–5

STABILIZED MISSILE LAUNCHERS

Missile launchers need not be stabilized so long as their sights and control units and designators are, except that missile launchers in turrets do require stabilization.

DRONE MISSILES

Drone missiles are remotely piloted "kamikaze" grav vehicles that use contra-grav lifters for movement through most of their mission, but accelerate to their maximum speed for the final flight into their targets.

Drone missiles are constructed partially as grav vehicles and partially as missiles. Although they are designed based on volume like grav vehicles, they do not require hull material volume or armor to be allocated, and they do not suffer volume losses to waste volume or hull slope. However, although they do not have material allocated for their airframes, like missiles, they are assumed to have airframe structures abstracted into the other materials purchased.

Each drone missile consists of a drone brain, one or more communicators, a warhead, contra-grav lifters, a mode of propulsion (usually a jet engine), batteries to power the lifters and communicators if the propulsion does not meet these needs, and fuel for the propulsion system.

The missile's maximum speed is calculated as if it were a grav vehicle, by dividing its thrust by its volume or mass (see grav vehicle density, above). Its cruising speed is one-quarter this speed, or 200 kph, whichever is less. This is the speed at which the missile always flies until it attacks its target. This speed is considered to be flown at NOE.

Drone Missile Brains

TL	Mass (kg)	Vol (m³)	MCr	Agility Bonus
13	20	0.02	0.1	+3
14	10	0.01	0.1	+4
15	5	0.005	0.1	+5

Drone missiles are launched from Tac missile launchers designed using the normal procedures, although the launcher need not contain any particular control units. Drone missiles do require control stations, usually fitted within the launch vehicle.

A remote drone missile control station consists of a normal workstation, a flight computer of the same tech level as the drone brain, and one each of all communicator types installed on the drone missile. Flight computers and communicators may not be shared among multiple control stations. A single drone missile control stations may control a certain number of missiles per turn depending upon tech level.

TL	Missiles per Turn
9	2
10-11	3
12-13	4
14	5
15-16	6
17-18	7
19+	8

DIRECT FIRE ROCKET LAUNCHERS

Unguided rockets are inherently inaccurate at long ranges. The short and medium range bands for direct fire rockets are calculated normally. However, direct fire rockets have no long or extreme range bands, so may not be fired in direct fire mode at longer than medium range.

PUTTING THE HEAT BACK INTO PLASMA

One of the most consistent requests we receive with respect to the equipment in Traveller® the New Era is to increase the effectiveness of high energy weapons. Although we're reluctant to tinker with design sequences and published equipment, the pressure for tougher fusion and plasma rifles has been almost irresistible.

Never let it be said that we don't listen to customers. In fact, the well-known third law of retail sales is "Always listen to your customers." (The first law is "Never kill a customer." The second law is "You break it, you buy it.") So we took a good look at man-portable high energy weapons and concluded that, although they weren't as good as grenade launchers, at least they were real expensive. Hmmm. Perhaps, we decided, there was something to all those annoying complaints after all. The following modifications refer to pages in the Fire, Fusion, & Steel high energy weapon design sequences.

Page 67 (Explosive Power Generation)
Change the mass of EPG cartridges to volume ×4 (instead of volume ×8).

Page 121 (High Energy Weapons)
Range: Short range for plasma guns is now $100 \times$ the square root of pulse energy in Megajoules (instead of $30 \times$ pulse energy).

Short range for fusion guns is now $150 \times$ the square root of pulse energy in Megajoules (instead of $50 \times$ pulse energy)

Damage: Damage value (D) is now $30 \times$ the square root of pulse energy in Megajoules (instead of $11.5 \times$ the square root of pulse energy)

Page 122 (High Energy Weapons)
Penetration: The penetration rating for *both* plasma and fusion guns is now 1-2-10.

Price: The revised component price multipliers for plasma and fusion guns are shown below.

Component	Plasma	Fusion
Firing Unit	600	1000
Support Hardware	600	1000
Gyro-Compensator*	600	600
Inertial Compensator*	1000	1000
Recoil Cradle	25	25
Towing Carriage	2	2
Autoloader	10	10
Gun Shield	1	1

All plasma and fusion weapons appearing in **Striker 2** have been rated according to this upgraded standard. The charts below will allow owners of **Traveller: the New Era, Smash & Grab,** and the **Reformation Coalition Equipment Guide** to update the values for previously published high energy weapons.

Weapon	TL	Pulse	Ammo	Weight				Price	
				Empty	Ldd	BP	Maq	Wpn	Ammo
4.3 cm Plasma Rifle	12	0.6	4.3 PPC	2.4	15.65	4.8	10	4320	15/211
4.7 cm Plasma Rifle	13	0.8	4.7 PPC	3.2	36.2	4.8	20	4800	20/539
4.7 cm Fusion Rifle	14	1.2	4.7 PFC	4.8	37.8	4.8	20	9600	9.6/331
4.1 cm Plasma Rifle/cmp	14	0.8	4.1 PFC	3.2	12.9	6.4	8	10,880	6.4/98
4.7 cm Fusion Rifle/comp	14	1.2	4.7 PFC	4.8	19.4	9.6	8	24,000	9.6/147
5.1 cm Fusion Rifle/comp	15	1.5	5.1 PFC	3	21.2	6	8	15,000	12/183
10cm Plasma Bazooka	10	2.88	10 PFC	34.6	45	—	1i	20,736	518.4
4cm Fusion Rifle/c (Droyne)	15	0.75	4.0 PFC	1.7	12.74	3	10	9500	6/111

Weapon	ROF	Dam	C-B	Pen Rtg	Pen Val	Blk	Mag	Recoil	Range
4.3cm Plasma 12	SA1	23	—	1-2-10	23-23-12-2	5	10	11	80
4.7cm Plasma 13	SA1	27	1-5	1-2-10	27-27-14-3	5	20	8	90
4.7cm Fusion 14	SA1	33	1-5	1-2-10	33-33-17-3	5	20	8	160
4.1cm Plasma 14c	SA1	27	1-5	1-2-10	27-27-14-3	4	8	5	90
4.7cm Fusion 14c	SA1	33	1-5	1-2-10	33-33-17-3	5	8	5	160
5.1cm Fusion 15c	SA1	37	1-5	1-2-10	37-37-19-4	3	8	4	180
10cm Plasma Bazooka	SS	51	3-5	1-2-10	51-51-26-5	5	1i	—	170
4cm Fusion 15c (Droyne)	SA1	26	1-5	1-2-10	26-26-13-3	2	10	5	130
125-Mj Fusion Gun (Intrepid)	SA2	335	112-35	1-2-10	335-335-168-34	—	200	—	1680
4.75-Mj Plasma (Mongoose)	SA1	65	4-5	1-2-10	65-65-33-7	—	300	—	220
14-Mj Plasma (Ferret)	1/2	112	13-15	1-2-10	112-112-56-11	—	300	—	370
12-Mj Plasma (Pyrrhus)	SA1	104	11-15	1-2-10	104-104-52-10	—	400	—	350
76-Mj Plasma (Victrix)	SA5	262	69-25	1-2-10	262-262-131-26	—	100	—	1310
2-Mj Plasma (G-Carrier)	SA1	42	2-5	1-2-10	42-42-21-4	—	200	—	140

Troop Quality: _____ **Morale:** _____ **Initiative:** _____
Armor: _____
Movement: _____ cm
System: _____ *Short ( )*   *Medium ( )*   *Long ( )*   *Extreme ( )*   *Notes* _____

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Troop Quality: _____ **Morale:** _____ **Initiative:** _____
Armor: _____
Movement: _____ cm
System: _____ *Short ( )*   *Medium ( )*   *Long ( )*   *Extreme ( )*   *Notes* _____

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Troop Quality: _____ Morale: _____ Initiative: _____

Movement:
Front Armor:
Side Armor:
Rear Armor:
Deck Armor:
Belly Armor:
Mass Class:
Explosive Damage Modifier:
Fire Control:
Stabilization:

Cargo Capacity:
Environmental:
Electronic Warfare:
Ammunition:

Maintenance Points:

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes

Troop Quality: _____ Morale: _____ Initiative: _____

Movement:
Front Armor:
Side Armor:
Rear Armor:
Deck Armor:
Belly Armor:
Mass Class:
Explosive Damage Modifier:
Fire Control:
Stabilization:

Cargo Capacity:
Environmental:
Electronic Warfare:
Ammunition:

Maintenance Points:

System:	Short ( )	Medium ( )	Long ( )	Extreme ( )	Notes

Quick Reference Chart

Sequence of Play
Command Phase
Movement Phase
Fire Phase
  Opportunity Fire sub-phase
  General Fire sub-phase
  Final Fire sub-phase
Morale Phase
Melee Phase

Orbital Range Bombardment

Altitude	Range for Accuracy
0-10 cm	Short
11-50 cm	Medium
51-100 cm	Long
101+ cm	Extreme

Scatter Diagram
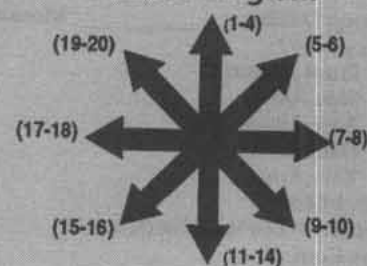
Terrain Effects

Terrain Type	Personnel	Wheeled Vehicle	Tracked Vehicle	Air Cushion Vehicle
Broken	×2	P	×4	×2
Cliff	P	P	P	P
Contour line	—	–10 cm†	–5 cm†	–20 cm†
Creek/ford (cross)	×2	×2*	×2	—
Dense vegetation (Jungle)	×2	P	P	P
Light vegetation (open woods)	—	—	—	×2
Moderate vegetation (woods)	—	×4	×2	P
Railway embankment (cross)	—	P	–10 cm†	-20 cm†
Rubble	×2	P	P	×4
Sand	—	×2	—	—
Sand dune	×2	×4	×2	—
Settlement	×2	×2	×2	×4
Steep slopes	×2	P	P	P
Swamp/marsh	×2	P	P	—

*Only at fords.
†Per line crossed.
P: Prohibited.
—: Normal movement.
This chart does not include terrain types discussed in the Advanced Rules.

Cover Saving Throw Numbers

Cover	Save Number
Wood building	1
Entrenchment, stone or masonry structure	2
Reinforced concrete structure	3
Crew or passengers in open armored vehicle	3

Cover Explosive Power Modifier

Terrain	Modifier
Wooden building	–4
Entrenchment	–6
Entrenchment with overhead cover	–8
Stone or cement building	–8
Pillbox	–10

Counter Summary

 Cautious advance

 Rapid advance

Disengage Disengage

No Order No order

Rally Rally

Take Command Take command

 Travel

Regroup Regroup

Spotting Difficulty Modifiers

Spotting Stand is	Diff Mod
Recon	–1
Elite	–2
Veteran	–1
Green	+1
Moving	+1
Enclosed vehicle spotting to front	+1*
Enclosed vehicle spotting to flank	+2*

Target Stand is	Modifier
Moving	–1
Firing	–1
Stationary under cover	+1
Personnel	+1

*Modifiers apply only when conducting naked eye spots; they do not apply when using any sort of electronic sensor or vision enhancement equipment.

Quick Reference Chart

Morale Modifiers

Condition	Modifier
Each stand/vehicle in the group hit this turn*	–1
Each stand/vehicle in group eliminated/ destroyed this turn	–2
Stand is pinned	–2
Each friendly group within sight eliminated this turn	–2
Any enemy stand/armed vehicle within 25 cm	–3
Unit is operating under a travel order	–4
Any permanent morale modifiers	–1, –2, –3 or –4
Stand is under cover	+4

*If the stand is hit more than once in the same turn, the modifier remains –1, regardless of the total number of hits taken by the stand.

Morale Effects

Roll	Effect
+1, 2, 3	Pin
+4, 5, 6	Forced back
+7, 8, 9	Demoralized
+10	Eliminated

Vehicle Penetration

Pen	Effect
+1, 2, 3	1 hit
+4, 5, 6	2 hits
+7	Destroyed

Wind
(roll twice per turn)

Roll	Direction	Intensity
1-2	No change	Light unchanged, moderate becomes light, high becomes moderate.
3-16	No change	No change
17-18	Shift 1 clockwise	No change
19-20	Shift 1 counterclockwise	Light becomes moderate, moderate becomes high, high is unchanged

Miring

Vehicle Type	Miring Roll Medium Mud	Miring Roll Heavy Mud
Wheeled vehicle on dirt road	—	2
Wheeled vehicle off road	4	8
Tracked vehicle off road	2	4

Meteoric Assault Drop Height

Type	Height
Elite	15 cm
Veteran	30 cm
Experienced	60 cm
Novice	120 cm

Orders Summary

Order	Opportunity	General	Final
No order	Yes	—	—
Take command	Yes	—	—
Cautious advance	—	Yes	—
Rapid advance	—	—	Yes
Disengage	—	—	Yes
Travel	—	—	—
Rally	—	—	—
Regroup	—	—	—

Melee Modifiers

Stand Type	Modifier
Single-figure stand	–5
Heavy weapon crew stand	–5
Cavalry stand	+5
Each additional stand	+5
Melee only*	+2
Carrying shield	+2
Melee armored**	+save number
Regular armored	+twice save number
Higher morale	+difference

*Melee-only troops are those which are without firearms and are equipped exclusively for melees, such as low-tech armored knights or primitive spearmen.

**Melee armored troops are those wearing armor useful against melee weapons but not useful against firearms. Melee weapon armor value is shown on the unit card in parentheses and does not provide a saving throw versus small arms.

Fortification Fire Modifiers

Type	Direct Fire Save No.	Explosive Modifier
Entrenchment	2	–6
Weapons pit	2	–6
Bunker	2	–8
Pillbox	3	–10

Submunition Fire Modifiers

Target is:	Modifier
Armored vehicle*	–12/–8

Terrain is:	Modifier
Light vegetation**	–6
Moderate vegetation**	–10
Dense vegetation**	NE (–16)
Entrenchment	–12
Weapons pit	–8
Building	–14
Bunker, pillbox	NE (–16)
Open water	NE (–16)

*Only counts as armored if it has top armor of 2 or more. Lower modifier is used versus DP submunitions.

**Vegetation must include some overhead canopy of branches and leaves to provide modifiers.

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HIGH SPEED COMBAT

"Six, Go."
"Objective in sight. Gun sleds in overwatch, taxis going in."
"Roger. Get the boys out of the taxis and back in fast; we can't spend too much time in this one-horse burg."

Striker II is the miniatures combat rules of 58th century warfare, for use with **Traveller: The New Era**. Now the epic planetary engagements of the New Era, the Final War, or the Frontier Wars are under your control, allowing you to command battalions of lift infantry, drop troops, and grav armor. These rules are fully compatible with **Traveller**, and so also allow miniatures resolution of roleplaying adventures.

"Dagger Six, am receiving heavy direct fire from terrain east of objective, one taxi is down and one damaged. Sleds are setting up perimeter for crew recovery, request additional direct fire support, over."
"Roger, One-six, am releasing TD platoon to your control, ETA at high-speed transit is 90."
"90, roger. We can hold on for a minute and a half."

Combat in the 58th century is fast-moving, and so is **Striker II**. Based on the award-winning **Command Decision** miniatures rules, Striker II allows rapid play which replicates the rapid tempo and quick reactions of advanced technology warfare. These straight-forward rules allow players to concentrate on the mental dilemmas of tactics and command, not the interpretation of complicated rules mechanics.

"This is Dagger One-six. Situation is stabilized. We have established a base of fire south of town, and are sending dismounts to secure the town center."
"Dagger Two-six reports resistance in his sector as well. Can you identify the defending force?"
"Roger, I estimate a dismounted rifle battalion supported by a company of track-laying armor with light lift recon."

Striker II is more than just rules, it is also an extensive resource of military hardware and organizations—from the jeeps and tracked vehicles of Wilds units to the speeders and grav tanks of a Reformation Coalition Marine Brigade. Striker II also includes tables of organization and equipment listings for some of the most important military units from Traveller's long history: Zhodani Lift Infantry Battalions and Commando Groupments, Imperial Marine Task Forces, Imperial Guard Regiments, and the legendary 4518th Lift Infantry Regiment—"The Duke of Regina's Own Huscarles."

"Dagger One-six to Dagger Six. Objective is neutralized, infantry is reembarking, casualties minimal. Will be ready to redeploy in 300."
"Roger. Good work, One-six. Orbital bombardment of Objective Strega begins in 240, duration 600. Lifting of bombardment will be simultaneous with drop troop insertion. You will be blocking avenues of approach to North and East of Strega, am sending coordinates now."

Striker II provides the full science fiction combat experience with rules on orbital bombardment, drop troops, antimissile fire control, planetary environment, and orbital superiority. Campaign rules allow a sophisticated strategic gaming experience by adding the effects of combat engineers, maintenance, and quality of food and medical care.

"Dagger Six from One-six, lead elements lifting now. Will be on blocking positions in 180."
"Roger. On my order, prepare to execute ConPlan Brooke from blocking positions."
"Will do, Six, we're on our way."
"Godspeed, One-six. Dagger Six out."
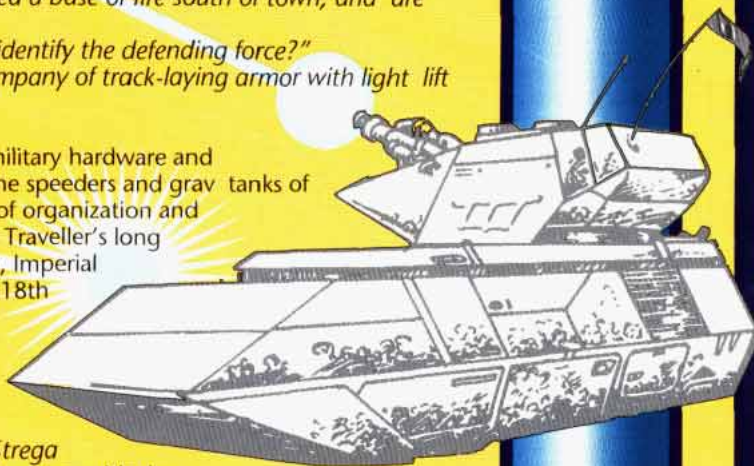
STRIKER II ™

COMMAND THE BATTLEFIELD OF THE FUTURE