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## INTRODUCTION

In preparation for the upcoming FFE release of the **Traveller: The New Era** GDW releases on CD-ROM, Marc Miller asked if I would begin drafting a consolidated set of errata (much like my **MegaTraveller** and **Classic Traveller** errata projects). This document represents those efforts, after consolidating this errata from several documents:

- June 30, 1993 errata sheet from GDW
- **TNE** Upgrade Booklet (included in *Fire, Fusion, & Steel* second printing books)
- Errata from the *Traveller Referee's Screen*
- June 22, 1994 Battle Rider Errata and Clarifications from GDW
- December 7, 1994 Fire, Fusion, & Steel Errata from GDW
- Errata published in issues of *Challenge* (#73– #77)

If you have additions, corrections or questions about the material presented in this document, contact me at [don.mckinney@gmail.com](mailto:don.mckinney@gmail.com). This document is intended as a LIVING document—the intention is to allow the **TNE** community to continue to add to it, making it available for future **TNE** players and referees.

This errata provides corrections and elaborations for the entire GDW **Traveller: The New Era** rules line. Currently included errata covers: **Traveller: The New Era** (0300), **Brilliant Lances** (0303), **Fire, Fusion, & Steel** (0304), **Smash & Grab** (0305), **Battle Rider** (0308), **Path of Tears** (0309), **Reformation Coalition Equipment Guide** (0310), **Striker II** (0313), and **Regency Sourcebook** (0314).

As I find errata for *Survival Margin* (0301), *Traveller Player's Forms* (0306), *Traveller Referee's Screen* (0307), *World Tamer's Handbook* (0311), *Vampire Fleets* (0312), *Star Vikings* (0315), *Aliens Of The Rim* (0318), *Regency Combat Vehicle Guide* (0320), and *The Guilded Lilly* (0330). I suspect there is no errata for either the large **Traveller** T-Shirt (0316) or the x-large **Traveller** t-shirt (0317), and the deluxe **TNE** boxed set was (0302).

The GDW **TNE** releases ended when they closed, leaving *The Reformation Coalition Player's Handbook* (0319) and *The Regency Starship Guide* (0321) unpublished. While ads had been prepared for these two products, no other work had started on either book.

## UPDATES

This section details updates to this document.

- v0.02, 09/15/09: [Striker II](#) rule updates, permission from Frank Chadwick.
- v0.01, 08/15/09: original creation of the *Consolidated TNE Errata* document.

The latest changes to this document (after its original release) will be marked in [blue](#) for easy identification.

## EXPLANATIONS

The errata are broken down into four categories: corrections, omissions, clarifications, or additions.

**Correction:** Could be a typo, could conflict with another rule or publication, but the original item is wrong.

**Omission:** Perhaps it was an editing problem, but something was just left out of the published material.

**Clarification:** This is an explanation of something that was difficult to understand, or has confused many players or referees.

**Addition:** Not in the original material, but it really helps if you use it with the existing material.

## EXPANSIONS

In addition to the errata presented here, the **TNE** referee might find other sources useful for specific rules questions:

- *Brilliant Lances* Design Notes (*Challenge #71*).
- Top Laser: *Brilliant Lances* Tournaments (*Challenge #72*).
- Planetfall: Skirmish-level combat for the New Era (*Challenge #75*).
- Quick Start: Fast PC Generation for the New Era (*Challenge #75*).
- Notes on Collapsing Worlds (*Challenge #77*).

**Traveller: The New Era** was designed using the GDW "House" system mechanics. As a consequence, much of it is compatible with other GDW RPGs designed using the same mechanics (*Twilight: 2000* version 2.2 and *Dark Conspiracy* version 1.0), and elements of those games provide insights into compatible equipment, animals, menaces and activities.

## COPYRIGHT NOTICE

*Consolidated TNE Errata* is Copyright 2009 Don McKinney, and cannot be republished or distributed without my consent; explicit consent is given to Far Future Enterprises for any purpose. Thanks to Frank Chadwick and Test of Battle Games for permission to use ideas from *Command Decision: Test of Battle* in the *Striker II* errata.

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## TRAVELLER: THE NEW ERA (0300, 1993)

The errata for the **Traveller: The New Era** rulebook can be divided into two parts. First, the errata needed to bring the first printing up to match the “Mark I, Mod 1” second printing (released in December 1993). In places where later errata affects this errata, the later corrections appear in *italics*.

**Page 5, Table of Contents (correction):** Combat starts on page 263, not 363.

**Page 18, Homeworld Characteristics Descriptions table, World Government Descriptions (omission):** The government descriptions were originally missing from this table. They should be:

**Low Gov (0-2):** Very little government regulation. Government organized along corporate or participatory democracy lines.

**Mod Gov (3-9):** Active, interventionist government but with numerous constitutional limits on its authority and frequently required to seek ratification of its actions by the governed, either through referenda or elections.

**High Gov (A-C):** Very active government with few genuine limits on its authority and with little meaningful input by the majority of the governed.

**Extreme Gov (D-F):** Repressive government which devotes routine effort to keeping the population in line with its directives.

**Page 23, Background Skills List, Environment Suit (correction):** Environment Suit should be available as a background skill for on worlds with a Vacuum atmosphere (0-3), or if the tech level is Pre-Stellar+ (6+).

**Page 35, Skill and Attributed-Derived Values, Load (addition):** Characters who are *burdened* (page 35, “Load”) have their initiative reduced by 1 (to a minimum of 1) so long as they are carrying that weight. Characters who are carrying four times their basic load (for short distances) have their initiative reduced to 1 so long as they are carrying that load. These are in addition to penalties for wounding, etc.

**Page 38, Stellar Regions, right column, last paragraph (correction):** The first sentence should read, “In the Wilds, all value modifiers are immediately applied to the ship’s wear value, up to the maximum value of 10.” The last sentence of the paragraph should read, “Note that this means that no PC groups in the Wilds can take +DMs on the Ship Types Table if this would raise the total value modifiers to more than 10.”

**Page 38, Stellar Regions DMs table (correction):** Wilds line should read: “All value mods applied up to maximum wear value 10, no mortgage.”

**Page 55, Career List, Special Operations (addition):** Under “Other Effects,” add “If more than one term is served, +1 to Initiative.”

**Page 65, Human Template NPCs, Lancer (correction):** Technician is a cluster skill, and should be in boldface.

**Page 103, Khulam Subsector, 1117 World Data (corrections):** 049-049 (2839) should have Poor trade classification. Futok (3140) should have the Agricultural trade classification.

**Page 106, Task Resolution and Skills, Overview (correction):** Remove the second paragraph of the overview (which starts, “This chapter is presented here, before character generation...”) Clearly, this chapter appears after character generation.

**Page 107, Character Attributes and Skills, Attribute (correction):** In the second line of the first column, reference is made to attributes in the range of 1 to 13. The sentence should read, “These numbers range between 1 and 15, with 15 being the best.”

**Page 112, Skill Descriptions, first paragraph (addition):** The “-” notation next to a law level description shows the law levels at which this skill can be taken. At law levels above this, the skill may only be taken with a successful override (page 28).

**Page 113, Skills by Skill Cluster, Space Vessel cluster (correction):** Astrogration should be listed as (EDU).

**Page 125, Task Resolution and Skills, Pilot Skill (clarification):** The Rotary Wing cascade allows use of helicopters and autogyros. Convertible fixed-wing/rotary (“tilt-rotor”) aircraft use whichever skill is appropriate to the current mode of travel. Compound helicopters which still derive lift from moving rotors use this cascade, while helicopters which lock their blades in flight (x-wing aircraft) use the Fixed Wing cascade.

**Page 168, Spinward States, The Regency (clarification):** Change the first sentence to read, “The Regency is the new name given to the Domain of Deneb by Archduke (later, First Regent) Norris.”

**Page 172, Regina Subsector, 1201 World Data (corrections):** Knorbes (1807) should not have the Agricultural trade classification. Pscias (2106) should have the Agricultural trade classification. Enope (2205) should have the Ice-capped trade classification. Heya (2402) should not have the Agricultural trade classification.

**Page 172, Regina Subsector, 1201 Subsector Map (correction):** Yorbund (2303) is shown as having water; in fact, it has no water, its oceans are fluid.

**Page 177, Ershur Subsector, 1117 Subsector Map (correction):** Vilardi (0205) is shown as having water; in fact, it has no water, its oceans are fluid.

**Page 178, Ershur Subsector, 1201 World Data (corrections):** Towering (0501) has no trade classifications, and needs a tab to make the data columns line up. Observatory (0807) should only have a trade classification of Barren.

**Page 178, Ershur Subsector, 1201 Subsector Map (correction):** Vilardi (0205) is shown as having water; in fact, it has no water, its oceans are fluid.

**Page 183, Imperial UWP Creation, Hydrosphere, second paragraph (omission):** The end of the paragraph should read, “A desert world may have up to 4% free-standing water and still be considered a desert world. Conversely, a water world may have a 95% hydrosphere and still be considered a water world.”

**Page 184, Extended System Generation, Spectral Decimal Classification (clarification):** Note that there are a large number of published sectors which have decimal classifications assigned to class D stars. There is no need to delete these, only to remember that the decimal classifications can be ignored; a M1D and a M8D are both “DM” on the chart on page 193.

**Page 185, Extended System Generation, Placing Known Components (correction):** The fragment on the top of page 185, “a reroll is required.” can be deleted. It’s the same as the last sentence on page 184.

**Page 186, Universal World Profile Generation, Steps 4, 5, 8 and 9 (omission):** Steps 4, 5, 8, and 9 are missing a term. World Size should be, “2D6-2,” Atmosphere should be, “2D6-7 + World Size,” Government should be, “2D-7 + Population,” and Law Level should be, “2D-7 + Government.”

**Page 186, Universal World Profile Generation, Step 4 (omission):** The Planetary Density table is on page 190.

**Page 186, Universal World Profile Generation, Step 10, Technology Level Die Modifiers (correction):** The existing table is incorrect. Use the table below.

TECHNOLOGY LEVEL DIE MODIFIERS						
Level	Star- port	World Size	Atmo- sphere	Hydro- graphics	Popu- lation	Govern- ment
0		+2	+1	—	—	+1
1		+2	+1	—	+1	—
2		+1	+1	—	+1	—
3		+1	+1	—	+1	—
4		+1	—	—	+1	—
5		—	—	—	+1	+1
6		—	—	—	—	—
7		—	—	—	—	—
8		—	—	—	—	—
9		—	—	+1	+2	—
A	+6	—	+1	+2	+4	—
B	+4		+1			—
C	+2		+1			—
D	—		+1			-2
E	—		+1			-1
F	+1		+1			-1
X	-4					

**Page 187, Universal World Profile Generation, Step 12, Trade Classification (correction):** Atmosphere requirements for the Fluid Oceans (FI) trade classification should be “A-C”. For Barren and NonIndustrial, where the population code is 0, add a note at the bottom of the table which reads, “For Barren world, population multiplier must be 0. For NonIndustrial, population multiplier must be 1+.” The population requirement for Low Population (Lo) worlds should be “3-”.

**Page 187, Universal World Profile Generation, Step 14, Population Multiplier (clarification):** The procedure described is fine for any world with a population code of 1+; for worlds with a population code of 0, treat a roll of 10 as “0”, meaning the world is uninhabited.”

**Page 189, Universal World Profile Tables, World Law Level (correction):** The entry for law level 6 should read, “Moderate (all firearms except *shotguns* prohibited).”

**Page 190, Collapse Effects Determination, Step 1, Maximum Sustainable Population (correction):** Atmosphere types D, E, and F have regions that are human-habitable, and therefore the ruling that “human life is not possible and the world is uninhabited” should not apply to these worlds. Replace the sentence with: “If the atmosphere is 0, 1, 2, 3, A, B, or C, human life is not possible and the world is uninhabited: reduce the UWP population code and population multiplier each to 0.” Also insert the following line to the Maximum Sustainable Population table, in the Atmosphere section: “Factor: Atmos D, E, F, Modification: -3”.

**Page 191, Collapse Effects Determination, Step 8, Law Level, second sentence (correction):** Change as follows: “If the government is a Technologically Elevated Dictator, add an additional +4 to this die roll.”

**Page 192, Extended System Generation, Step 5, Decimal Classification (correction and addition):** Instruction 1 should read “1. Roll 1D10 and treat a roll of 0 as 0 (instead of 10).” Add a note following which reads, “Note: There are no O0 through O4 stars; reroll these results.”

**Page 192, Extended System Generation, Step 6, Companion Star Type and Size (addition):** Note: D-class stars have no decimal classification (see page 184).

**Page 193, Extended System Generation, Step 13, Orbit Zones (clarification):** Note: The columns for decimal classification define the break points in the decimal series. The column for decimal 0 is used for decimals 0-4 and the column for decimal 5 is used for decimals 5-9. Where there is a separate column for M9, the M5 column is used for M5-8, and the M9 column is used for M9 only.

**Page 193, Extended System Generation, Step 15, Orbit Zones for Luminosity Class 1b (correction):** Class K5 and M0 stars should have a habitable zone in orbit 11. Classes M5 and M9 should have an inner zone in orbit 11, and a habitable zone in orbit 12.

**Page 194, Extended System Generation, Step 32, Population (correction):** When determining satellite population, the maximum population is Mainworld population –1.

**Page 195, Extended System Generation, Step 41, Subordinate Government (correction):** In the table, it should read “Self-Perpetuating Oligarchy”, not “Self-Perpetuating Democracy.”

**Page 195, Extended System Generation, Step 42, Facilities (correction):** The code for Mining facilities should be (Mn).

**Page 197, Nonterrestrial Environments, first paragraph, next to last sentence (correction):** Change to read, “The effects of gravity are discussed in the context of combat in the “Combat” chapter on page 307.”

**Page 199, Effects of Fatigue, second paragraph (correction):** Change to read, “Direct fire is made more difficult by fatigue. When making the task roll for a direct fire task (after difficulty levels have been modified for range recoil, etc.), the player must add one or more points to the die roll according to the character’s fatigue level. For each level of fatigue, add 3 to the die roll at short range, 2 at medium range, or 1 at long and extreme ranges.”

**Page 212, Animal Weaponry (Step 8), Damage, first paragraph (correction):** Replace with: Damage: This shows the number of damage dice done by the weapon. It is modified by the results of the Animal Size table. A damage 1 halved becomes 1D6+2, and is noted as ½.

**Page 224, Interplanetary Travel, second paragraph (clarification):** The accompanying starship operating procedure tables are on pages 225-227.

**Page 226, Starship Operating Procedures, Step 10, Emerge from Jumpspace, second paragraph (correction):** The second sentence should read, “Outstanding Success indicates that no course correction required; the ship’s exit point is positioned so that its velocity will take it from 100 diameters to 10 diameters of the destination world.”

**Page 227, Starship Operating Procedures, Step 14, Interplanetary Speed table (correction):** This table is incorrect. The correct table follows:

INTERPLANETARY SPEED	
G-Hours and Travel Time per 1 Light-Second	
Burns	Time
G-Hours	Minutes
1	142
2	71
3	47
4	35
5	28
6	24
7	20
8	18
9	16

**Page 228, Starship Encounters, Step 2, Ship Type (clarification):** The Ship Type table uses the same DMs as the Encounter Likelihood table from Step 1.

**Page 228, Starship Encounters, Step 3, Nonstarship Mission table (correction):** Several items have “^” before the number. This can be ignored.

**Page 236, Passengers and Cargo, first column, Passenger Table (correction):** The “Low” column should also be used to determine the number of Steerage passengers. In the Income paragraph at the bottom of the column, credit the ship with Cr2500 per steerage passenger.

**Page 236, Passengers and Cargo, third column, Die Roll Modifiers (clarification):** These DMs apply to the number of available lots.

**Page 237, Passengers and Cargo, Step 7, Nature of Cargo (clarification):** Worlds with no trade classifications use table 8f.

**Page 260, Robots, Battle Damage (Vehicular Robots), last paragraph (correction):** The last paragraph should be replaced with the following:

“*Weapon:* One weapon system is destroyed. If no weapon is present in the location damaged, the hit becomes an ammunition hit. If no ammunition is present in the location damaged, the hit has no effect.”

**Page 264, Initiative, Burden Effects on Initiative (correction):** Characters who are *burdened* (page 35, “Load”) have their initiative reduced by 1 (to a minimum of 1) so long as they are carrying that weight. Characters who are carrying four times their basic load (for short distances) have their initiative reduced to 1 so long as they are carrying that load. These are in addition to penalties for wounding, etc.

**Page 241, Equipment Maintenance and Repairs, Potential Breakdowns (correction):** Replace the first two paragraphs with the following:

“Each piece of equipment has the potential to break down when it is used for a certain period of time. The chance for a *potential* breakdown is equal to the equipment’s wear value and is rolled on a D10 (thus a piece of equipment with a wear value of 2 would have a potential break down on a 1D10 roll of 2 or less).

“For most equipment, including planetary vehicles (all ground vehicles, lift vehicles, and aircraft, plus small watercraft), potential breakdowns are rolled for each eight-hour period (or fraction thereof) for which the equipment is used. For heavy equipment specifically designed for continuous long-term use, the roll is only once per day (24 hours) of use (this category includes all spacecraft and starships, large ocean-going ships, hydroelectric power plants, and the like).”

**Page 242, Equipment Maintenance and Repairs, Increasing Wear (clarification):** Referees should take care that not too many separate systems of a single object are rolled for, as this can result in continuous breakdowns. Try rolling only once per period, but against the highest wear value. The referee will then assign the exact component for a potential breakdown by pro-rating the individual component wear values.

**Page 273, Fire Combat, Weapon Parameters, SAR (Single Action Revolver) (addition):** Add the following paragraph:

“A single-action revolver may be fired three times per fire action by “fanning” (holding the trigger down while rapidly working the hammer with the heel of the other hand). All shots while fanning are at +1 difficulty level.”

**Pages 273, 276, Semiautomatic Energy Weapons (correction):** Replace the second and third paragraphs of this page.

Some semiautomatic lasers have the capability to fire their energy in varying numbers of pulses of greater or lesser power. This is shown by multiple lines for each such weapon, showing the damage ratings for each available pulse rate.

For direct energy input (DEI, also called “power pack”) lasers, the listing also shows how many shots at these power levels are available in the power pack. This requires players to be careful when keeping track of “ammunition,” as one double-powered shot is worth the same amount as two single-powered shots in the laser’s power pack.

For chemical (CLC) lasers, the laser energy available in a single cartridge may be allocated as one large pulse, or a burst of several smaller pulses. These multiple pulses from one cartridge are always resolved as bursts of automatic fire, and never as separately aimed shots. Note that, unlike other automatic weapons, these lasers are not necessarily capable of firing five such bursts per fire turn. These lasers, and similarly capable DEI lasers, are listed with the number of burst: possible per five-second combat turn and the number of shots per burst. For example, “3x3” indicates a laser capable of three three-shot automatic bursts per live-second combat turn. Each such burst uses one cartridge for a CLC, or for a direct energy uses energy as indicated on the data chart.

**Page 285, Weapon Damage (clarification):** Most weapons do the same amount of anti-personnel damage at all ranges. This is true for slug-firing small arms, for large-caliber CPR guns (which have a constant anti-personnel damage value) and high-energy weapons (plasma and fusion weapons whose damage value remains constant but whose penetration ratings do decline over distance).

However, lasers are an exception. The weapons listings show the personnel damage dice done by a laser hit at all four ranges, as these decline with distance (a laser’s penetration rating also declines over distance at the same time, but this is not visible with small arms lasers which start with nil penetration).

**Page 285, Laser Penetration (clarification):** Most small arms lasers have a listed penetration rating of Nil, which means they cannot penetrate armor values of 1 or greater. However, this only applies to rigid ceramic or metallic armor. All non-ceramic, non-metallic armor is treated as no armor, so lasers do damage normally to the wearer. Chain mail is also treated as no armor by lasers, Flak jackets include rigid metallic plates, so do protect from laser fire.

**Page 285, 297, Penetration and Damage (clarification and correction):** Penetration is expressed in two ways: as penetration value, and as penetration rating.

Penetration value is a measure of the weapon’s absolute ability to penetrate armor, and is the measure most often used in vehicle combat.

Penetration rating describes the relationship between a weapon’s damage value and its penetration value. Penetration value = Damage value ÷ Penetration rating. Likewise, Damage value = Penetration value × Penetration rating.

Penetration rating is also equal to the number of points of damage value that are lost for each level of armor value that is penetrated (thus the smaller the penetration rating, the better the penetration performance). This is the measure most often used in personnel combat. Penetration ratings become higher (i.e., penetration performance becomes worse) as range increases. Penetration ratings are given by range, short/medium-long-extreme (i.e., penetration rating for medium is the same as for short).

Small arms are usually listed with their damage value and penetration ratings listed separately, while weapons intended primarily for use against vehicles are usually listed with their damage value and penetration ratings combined into their penetration values attire various ranges.

Thus a small arms fusion gun might be described as having a damage value of 10 with penetration ratings of ½-1-4. That same fusion gun, if it were rated as a cradle gun, would have listed penetration values of 20-10-3 (short/medium-long-extreme).

Damage is expressed as damage value which is related to penetration value and penetration rating as described above. Damage value is equivalent to damage dice which are inflicted on personnel (or other creature targets) in all cases but one: lasers. Lasers have damage values which are related by their penetration ratings to their penetration values, as described above. However, their damage values are not used to damage personnel. Each point of a laser's damage value is equal to 20 personnel damage dice. Small arms lasers in the equipment listings already have their damage capabilities listed in terms of personnel damage dice, but if a personnel target were hit by a starship-mounted laser, that laser's damage value (at the appropriate range) would have to be multiplied by 20 to see how many dice of damage was done to the target.

**Page 288, Wound Effects and Healing, Wound Severity (addition):** Upon further testing, we have decided that the following wound effects provide more entertaining and dynamic play, and suggest that all players use these instead.

**“Serious Wounds:** The roll to avoid losing consciousness every turn in which the character attempts an activity becomes a Difficult roll against Constitution. Characters who have lost consciousness make a Formidable roll against their Constitution each turn to attempt to regain consciousness.

**“Critical Wounds:** The roll to regain consciousness is made each combat turn, and is a D100 (percentile) roll against the Constitution attribute.”

**Page 289, Healing, First Aid (addition):** Add the following new rule for the use of the personal medical kit, immediately before the “Stabilizing Critical Wounds” section.

“The use of a personal medical kit (page 334) allows a character with neither Medical skill nor a doctor's medical kit to avoid the unskilled penalty when attempting a first aid task (thus it is a Formidable task using the character's EDU attribute as a substitute Medical asset). One such use uses up the medical kit. Use of a computer medical scanner (page 334) also allows unskilled characters to avoid the unskilled penalty, or adds +1 to the substitute asset of unskilled characters using a personal medical kit.”

**Page 292, Mishaps, second column, Powerboats (correction):** The reference to “size one” should read “Micro or SubMicro”.

**Page 294, Firing at Vehicles, Open Vehicles (addition):** Open Vehicles: Some vehicles have their hull front, side, and rear armor listed in brackets, for example, [1]. This Indicates that the vehicle is an open vehicle. Open vehicles have a slight armor protection provided by their metal bodies, but it is an incomplete cover. Whenever a shot hits an open vehicle, there is a 50% chance of the shot hitting the vehicle's body and a 50% chance of it going through a window or other open portion. If it hits the body, the shot is resolved normally, and the vehicle receives the benefit of its armor value. If It goes in through a window, the shot is always resolved as minor damage, and any damage result is ignored except for crew or passenger (these may also be resolved as cargo damage) result.

**Page 301, Damage Implementation, Fire, second paragraph (correction):** The task to extinguish a fire should be a Difficult versus CON, not Formidable.

**Page 301, Damage Implementation, Instruments (correction):** Replace the “wind speed indicator” with just “speed indicator”.

**Page 302, Collision Damage, Examples (correction):** In the example of the collision between the car and the truck, the following corrections should be made: “the car is hit with a value of  $(95 \times 2) / 10$ , or 19,” “which means that  $(19 - 1 =)$  18 is referenced,” and “As a result,  $(9 - 1 =)$  8 points are taken to the Vehicle Damage Results Table.” In the tandem bicycle example, the check versus Agility should be Average, not Difficult.

**Page 306, Chemical Warfare, Blister Agent (correction):** The last sentence should read, “Characters wearing masks and protective suits (or vac suit, air-tight armor, etc.) are unaffected by blister agents.”

**Page 306, Chemical Warfare, Nerve Gas, second paragraph (correction):** The last sentence should read, “If wearing a pressure suit (such as a vac suit or combat environment suit) or a protective suit with a gas mask, he or she is not affected.

**Page 313, Encounter Resolution, Step 1, Determine Surprise, Readiness (correction):** In the last sentence, replace “damage control (see at right) may be” with “damage control may be (see page 323).”

**Page 313, Encounter Resolution, Step 3, Resolve Maneuver, Speed Change (correction):** Change the second sentence to read, “Each G-turn of acceleration spent by a ship changes the closing velocity for the current turn by one.”

**Page 314, Step 4: Resolve Combat, Fire (correction):** Delete all references to three-minute fire segments. Fire is now resolved one time only per 30-minute turn, as each shot represents 10 shots over the course of the turn (also disregard the Reduced Rates of Fire table on page 325). An Outstanding Success result on the to-hit roll now indicates two hits on the target.

**Page 314, Encounter Resolution, Step 4, Resolve Combat, Evasion (correction):** Change the reference to “G-hours” in the last sentence to “G-turns”.

**Page 315, Encounter Resolution, Step 4, Resolve Combat, Jamming (correction):** In the last paragraph on Jamming, delete the reference to the limit on maximum simultaneous sensor locks.

**Page 319, Damage Value (Clarification):** Relative to other long-range beam weapons, lasers have good penetrative performance, but generate less explosive force and damage. Particle accelerators have less penetrative ability than do lasers, but generate greater explosive force. Meson guns do not concern themselves with penetration as their particle beams pass through intervening matter to explode with great force.

- Particle accelerators penetrate armor and inflict damage points with their Penetration value. They also do additional Radiation and EMP damage.

- Lasers penetrate armor with their Penetration value, but inflict damage points with their Damage value.

- Meson guns do not worry about penetrating armor, and inflict damage points with their Damage value.

**Page 320, Combat, Excess Damage (addition):** If, after resolving internal damage, the roll on the Excess Damage Location table indicates that the remaining damage points are taken back to a surface location, first expend damage points normally to penetrate the hull (on the way back out). Then apply damage normally to any surface fixtures that may be there (rolling on the Damage Table if these take up less than the full hit location). If any damage points remain after this, they are vented to space and disregarded.

**Page 325, left column, Hit Location table (correction):** Delete this table, as it is redundant. Use the Ship Facing tables for hit locations.

**Page 325, right column, Ship Facing/Beam Weapon Fire table (correction):** The “Fore Quarter” line should read: “reroll results of 16 through 20.”

**Page 333, Engineer Demolitions Kit (correction):** Delete the sentence, “Items without a weight, etc. are not available separately.”

**Page 337, Hostile Environment Vac Suits, Accessories (correction):** The sentence starting, “Batteries power the air recycler achieve capacity; ...” should read, “Batteries power the air recycler; ....”

**Page 337, left column, Miscellaneous Accessories (correction):** The last sentence should read, “The long-range thruster pack (TRTP) is bulky, but provides 1G acceleration for up to 24 hours, using standard starship fuel.”

**Page 337, right column, Miscellaneous Accessories table (correction):** The Thermal Meteoroid Garment should be noted on the table as “(Armor Value 1)”, not “(armor 6, cloth-1)”.

**Page 340, Communication Equipment (correction):** The in-text range of 500 km for both the Communicator, Laser, and Communicator, Video, should be changed to 300 km, and all references to the term “regional range” should be deleted.

**Page 341, Data-Display Recorder Headpiece (correction):** Replace the last two sentences in the first paragraph of the description with: “Although useless by itself, the headpiece can be interfaced with any number of Tech Level 13+ devices.”

**Page 342, Equipment and Technology, Solar Arrays, Solar Cells (correction):** The figures in the MW column are off by a decimal place. Divide all of these values by 10 (becoming 0.01, 0.015, 0.02, 0.025, 0.03, 0.035, 0.04...).

**Page 345, Navigation Equipment, Inertial Locator (correction):** As the Inertial Locator is a heavier, more expensive, TL-9 version of the cheap lightweight, TL-8 Inertial Navigator, remove the entry for “Locator, Inertial” on page 345.

**Page 348, Starship Energy Weapons, Bays (correction):** The first sentence should begin, “Bays are built ...”

**Page 348, Starship Energy Weapons, Weapons Listing, Short (correction):** The parenthetical comment should read, “(tenths of a *light*-second).”

**Pages 348-349, Starship Weapons (correction):** All of these are from *Fire, Fusion & Steel*, page 153 (Appendix 1: Standard Socket-sized Weapons and Defenses for Installation Aboard Spacecraft). The differences are largely due to the use of slightly different rounding conventions from an earlier version of the design sequence. Some later errata (below) is identified in the tables in *italics* for completeness.

SOCKET LASER TURRETS AND BARBETTES								
TL	Description	MW	MCr	Mass	Short	Medium	Long	Extreme
10	60-Mj laser turret	1.7	1.56	55	1:1/6-19	2:1/6-19	4:1/3-9	8:1/2-5
11	80-Mj laser turret	2.2	2.08	59	2:1/7-22	4:1/7-22	8:1/6-19	16:1/3-10
11	150-Mj laser barrette	4.2	6.56	119	10:1/10-31	20:1/5-17	40:1/3-8	80:1-4
12	120-Mj laser turret	3.3	0.94	65	4:1/9-27	8:1/9-27	16:1/6-19	32:1/3-9
13	150-Mj laser turret	4.2	0.72	68	1:1/10-31	2:1/10-31	4:1/10-31	8:1/10-31
13	106-Mj laser turret	2.9	1.45	59	10:1/8-26	20:1/6-20	40:1/3-10	80:1/2-5
14	150-Mj laser turret	4.2	0.72	63	2:1/10-31	4:1/10-31	8:1/10-31	16:1/10-31
14	300-Mj laser barrette	8.3	2.16	131	10:1/14-43	20:1/14-43	40:1/8-26	80:1/4-13
15	150-Mj laser turret	4.2	0.86	57	10:1/10-31	20:1/10-31	40:1/10-31	80:1/10-31

**MW:** Required power input in megawatts; **MCr:** Price in millions of credits; **Mass:** In tons; **Short, Medium, Long, Extreme:** Combat performance at these ranges: range in hexes: penetration rating-damage value.

MISSILE LAUNCHERS						
Type	TL	Missiles	Volume	Weight	Power	Price
Turret	8	2	42	28.4	0.15	0.08
Barbette	8	5	84	70.4	0.15	0.11

**Volume:** In kiloliters; **Weight:** In tons; **Power:** In megawatts; **Price:** in millions of credits (without missiles).

MISSILES											
TL	Guidance	Yield	Mass	MCr	G-Turns	Hits	Damage	Range	Comm	Sensor	Signatures
9	Controlled	50	7	0.85	12/12	1D6	1/4-43	0	10L	—	+2/+2/+2/+2/+1
11	Controlled	100	7	0.95	12/12	1D6	1/18-56	0	10L	—	+2/+2/+2/+2/+1
12	Semi-Ind.	500	7	2.0	9/9	1D6	1/25-79	0	10L	1P	+4/+3/+4/+3/+1
13	Controlled	200	7	1.15	12/12	1D6	1/21-66	0	10L	—	+2/+2/+2/+2/+1
14	Semi-Ind.	500	7	2.7	7/7	1D6	1/25-79	0	10L	3P	+4/+3/+4/+3/+1
15	Controlled	500	7	1.25	12/12	1D6	1/25-79	0	10L	—	+2/+2/+2/+2/+1

**Yield:** Warhead yield; **Mass:** In tons; **MCr:** Price in millions of credits; **G-Turns:** Number of G-turns of fuel carried (followed by maximum number of G-turns which can be used in a single turn); **Hits:** Die roll for number of hits from the laser; **Damage:** Damage value of each laser hit; **Range:** Absolute range in hexes (0 = same hex only); **Comm:** Type of communicator (L=laser, M=maser, R=radio); **Sensor:** Sensor range (in hexes) and type (R=radar, T=high-resolution thermal, L=ladar, A=active EMS, P=passive EMS); **Signatures:** Missile's signature vs. radar, active EMS, HRT, passive EMS, and fire.

**Standard missiles have a volume of 7 cubic meters (1/2 a displacement ton).**

The semi-independent missiles have an endurance of 10 hours; after this time, they behave as normal controlled missiles. All missiles on the table have an armor value of 3.

NUCLEAR DAMPERS				
TL	Description	Mass	Price	Power
12	Damper Barbette	76.2	2.05	15
13	Damper Barbette	73.2	2.8	9
14	Damper Barbette	60.8	4.06	6
15	Damper Turret	33.5	4.53	3

**Mass:** In tons; **Price:** In millions of credits; **Power:** In megawatts.

SANDCASTERS			
TL	Price	Cannisters Carried	Beam Reduction
8	0.60	16	1D6x5
9	0.65	18	1D6x5
10	0.70	20	1D10x5
11	0.75	24	1D10x5
12	0.80	30	1D10x5
13	0.85	35	2D6x5
14	0.90	40	2D6x5
15	1.00	50	2D10x5

**Price:** Price of turret in millions of credits; **Cannisters Carried:** Number of sand canisters carried in turret; **Beam Reduction:** Beam reduction made per successful beam interception.

All listed sandcasters mass 50 tons and draw 1 MW of power.

**Page 351, Submachineguns (correction):** The updated tables for submachineguns are below.

SUBMACHINEGUNS										
Caliber	TL	Ammo	Empty	Weight		Ammo	Mag	Price	Price	Features
				Loaded	Mag			Wpn	Ammo	
9mm SMG	5	9x24mm-5	2.403	2.763	0.36	30/0.245	400	0.24/8.2	—	
9mm (fold stk) SMG	6	9x24mm-5	2.203	2.563	0.36	30/0.245	430	0.24/8.2	—	

**Ammo Price:** Ammo price is for ball rounds. DS, HE, & tranq are x2, HEAP is x3. The number to the left of the slash is the price per round, the number to the left is the price of a full load, or a loaded magazine if the weapon has a detachable magazine.

Round	ROF	Dam	Pen	Blk	Mag	-Recoil-		
						SS	Brst	Rng
9mm SMG-5 ball	5	2	1-Nil	3	30	1	3	48
9mm (fold stk) SMG-6 ball	5	2	1-Nil	2/3	30	1	3	48

**Mag:** Where the Mag column has two numbers separated by a slash, the left number is the capacity, the right number is the mass in kilograms of an empty magazine or ammo battery box.

**Page 351, Slug Rifles and Carbines (correction):** The updated tables for slug rifles and carbines are below. Some later errata (below) is identified in the tables in *italics* for completeness.

### SLUG RIFLES AND CARBINES

<i>Caliber</i>	<i>TL</i>	<i>Ammo</i>	<i>Empty</i>	<i>Weight Loaded</i>	<i>Ammo</i>	<i>Mag</i>	<i>Price Wpn</i>	<i>Price Ammo</i>	<i>Features</i>
7mm carbine	5	7x26mm	2.985	3.085	0.1	10/0.084	385.2	0.2/3	F, B
7mm carbine (fold stk)	5	7x26mm	2.785	2.885	0.1	10/0.084	415.2	0.2/3	F
7mm carbine (civilian)	5	7x26mm	2.555	2.605	0.05	5i	381.2	0.2/1	—
7mm rifle	5	7x57mm-5	5.254	5.694	0.44	20/0.317	855	0.44/9.8	F, B
7mm rifle (civilian)	5	7x57mm-5	4.967	5.077	0.44	5i	796	0.44/2.2	—
9mm rifle	7	9x44mm	8.462	9.022	0.56	20	1157	0.56/16.2	F, B
12mm hunting rifle	5	12x45mm	3.35	3.555	0.205	5i	558	1.8/9	—
7mm autorifle	6	7x57mm-5	5.254	5.694	0.44	20/0.317	998	0.44/12.8	F, B
4mm gauss rifle	12	4x20mm/35	4.923	4.943	0.02	40/1.483	1692	0.01/3.4	F, B, O, RG
5mm assault rifle	7	5x50mm-7	3.653	3.953	0.3	30/0.252	737	0.2/9	F, B
7mm assault rifle	7	7x70mm-7	4.325	4.805	0.48	30/0.327	971	0.32/13.6	F, B
7mm ACR	10	7x46mm	5.895	6.135	0.24	20/0.553	4097	0.24/107.8	E, L, F, B
2cm LAG	8	20x35mm	11.4812	11.921	0.44	5/0.475	2876	1.76/13.8	F

**Features:** B= Bayonet lug; F= Flash suppressor; L= Laser sight; O= Optic sights; RG= RAM rifle grenade adapter; S= Silencer; T= Telescopic sights.

<i>Round</i>	<i>ROF</i>	<i>Dam</i>	<i>Pen</i>	<i>Blk</i>	<i>Mag</i>	<i>–Recoil–</i>		
						<i>SS</i>	<i>Brst</i>	<i>Rng</i>
7mm carbine-5 ball	SA	2	1-Nil	5	10	3	—	47
7mm carbine (fold stk)-5 ball	SA	2	1-Nil	3/5	10	3	—	47
7mm carbine (civilian)-5 ball	SA	2	1-Nil	4	5i	3	—	47
7mm rifle-5 ball	SA	4	2-Nil	7	20	3	—	60
7mm rifle (civilian)-5 ball	SA	4	2-Nil	7	5i	3	—	60
9mm rifle-7 ball	SA	4	2-3-Nil	8	20	3	—	85
9mm rifle-7 HEAP-9	SA	5	2-2-2	8	20	3	—	64
9mm rifle-7 tranq-8	SA	-1*	Nil	8	20	3	—	30
12mm hunting rifle-5 ball	BA	4	2-Nil	5	5i	3	—	152
12mm hunting rifle-5 tranq-6	BA	-1*	Nil	5	5i	3	—	30
7mm autorifle-6 ball	5	4	2-Nil	7	20	3	8	60
4mm gauss rifle-12 dart	5/10	4	1-2-Nil	5	40	3	4/8	(64) 74
4mm gauss rifle-12 tranq	5/10	-1*	Nil	5	40	3	4/7	(30) 30
5mm assault rifle-7 ball	5	3	1-Nil	7	30	2	6	52
7mm assault rifle-7 ball	5	4	2-Nil	6	30	3	6	44
7mm ACR-10 DS	5	5	1-3-Nil	7	20	1	2	(100) 120
7mm ACR-10 HE	5	5	Nil	7	20	1	2	(62) 82
7mm ACR-10 HEAP	5	5	2-2-2	7	20	1	2	(62) 82
7mm ACR-10 tranq	5	-1*	Nil	7	20	1	2	(30) 30
2cm LAG DS	SA	6	1-3-5	6	5	2	—	252
2cm LAG HE	SA	9	Nil	6	5	2	—	158
2cm LAG HEAP-9	SA	9	2-2-2	6	5	2	—	158
2cm LAG tranq	SA	-1*	Nil	6	5	2	—	30
2cm LAG flechette (Short)	SA	2x9**	1	6	5	2	—	210
Medium-Long	SA	1	Nil					

\*In addition to the -1 damage, see **Traveller**, page 350 for other effects of tranq rounds.

Range in parens is iron sight range.

\*\*9 hits, each with a damage value of 2.

**Page 351, Shotguns (correction):** The updated tables for shotguns are below. Some later errata (below) is identified in the tables in *italics* for completeness.

### SHOTGUNS

<i>Caliber</i>	<i>TL</i>	<i>Ammo</i>	<i>Empty</i>	<i>Weight Loaded</i>	<i>Ammo</i>	<i>Mag</i>	<i>Price Wpn</i>	<i>Price Ammo</i>	<i>Features</i>
18mm pump shotgun	4	18x70mm-4	3.846	4.217	0.371	7i	578	0.53/3.71	—
18mm auto shotgun	7	18x70mm-4	3.941	4.471	0.53	10i	434	0.53/5.3	—

Round	ROF	Dam	Pen	Blk	Mag	-Recoil-		
						SS	Brst	Rng
18mm pump shotgun-4 Slug	PA	4	3-Nil	6	7i	4	—	40
18mm pump SG-4 Shot (Short)	PA	9	Nil	6	7i	4	—	40
Medium-Long	PA (10)	1	Nil					
18mm auto shotgun-7 Slug	SA	4	3-Nil	8	10i	4	—	63
18mm auto SG-7 shot (Short)	SA	9	Nil	8	10i	4	—	63
Medium-Long	SA (10)	1	Nil					
18mm auto shotgun-7 HE-6	SA	6	Nil	8	10i	4	—	47

**Page 351, 355, Autoguns (correction):** The updated tables for autoguns are below.

AUTOGUNS										
Caliber	TL	Ammo	Empty	Weight		Ammo	Mag	Price	Price	Features
				Loaded	Mag			Wpn	Ammo	
7mm MMG	5	7x57mm-5	9.953	12.153	2.2	100B	223	0.44/44	F	
7mm LMG	6	7x57mm-5	10.074	12.274	2.2	100B	2248	0.44/44	F	
5mm LMG	7	5x50mm-5	6.676	7.676	1	100B	1594	0.2/20	F	
13mm HMG	6	13x75mm	30.8	40.8	10	100B	6458	2/200	F	
5mm rotary	7	5x50mm-7	20.187	45.187	25	2500C/2	6472	0.2/600	F	
7mm rotary	7	7x57mm-5	32.686	87.686	55	2500C/2	7827	0.44/1320	—	
5mm rotary	8	5x50mm-7	23.427	73.427	50	5000C/2	7730	0.2/1100	—	
7mm rotary	8	7x64mm	40.602	103.102	62.5	2500C/2	12961	0.5/1470	—	
4mm gauss SAW	12	4x20mm/50	12.999	13.049	0.05	100/6.219	1102	0.01/14	O	
VRF gauss gun (veh)	10	4x20mm/60	26.68	41.68	15	30000C/2	4513	0.01/320	—	
VRF gauss gun (mp)	10	4x20mm/60	161.68	162.18	0.5	500C/137	5103	0.01/920	—	

**Features:** B= Bayonet tug, F= Flash suppressor; L= Laser sight; O= Optic sights; RG= RAM rifle grenade adapter; S= Silencer; T= Telescopic sights.

Round	ROF	Dam	Pen	Blk	Mag	-Recoil-		
						SS	Brst	Rng
7mm MMG-5 ball	10	4	2-Nil	8	100B	3	13	73
Bipod	10	4	2-Nil	8	100B	2	7	95
Tripod	10	4	2-Nil	8	100b	1	3	146
7mm LMG-6 ball	5	4	2-Nil	8	100B	2	4	75
Bipod	5	4	2-Nil	8	100B	1	2	98
5mm LMG-7 ball	5	3	1-Nil	8	100B	2	5	54
Bipod	5	3	1-Nil	7	100B	1	5	70
13mm HMG-6 ball	5	7	2-3-4	9	100B	4	11	81
Tripod	5	7	2-3-4	9	100B	1	3	162
5mm rotary-7 ball	5/50	3	1-Nil	6	2500C	3	3/31	62
Tripod	5/50	3	1-Nil	6	2500C	3	1/8	124
7mm rotary-7 ball	50	5	2-3-Nil	10	2500C	3	78	133
Tripod	50	5	2-3-Nil	10	2500C	1	22	266
5mm rotary-8 ball	5/50	3	1-Nil	7	5000C	3	3/30	75
Tripod	5/50	3	1-Nil	7	5000C	3	1/8	150
7mm rotary-8 ball	50	5	2-3-Nil	10	2500C	3	78	133
Tripod	50	5	2-3-Nil	10	2500C	1	22	266
4mm gauss SAW-12 dart	5/10	5	1-3-Nil	6	100B	2	4/8	71
Bipod	5/10	5	1-3-Nil	6	100B	1	2/4	92
4mm gauss SAW-12 HEAP	5/10	6	2-2-2	6	100B	2	4/8	53
Bipod	5/10	6	2-2-2	6	100B	1	2/4	69
VRF gauss gun (veh)-10 dart	50	6	1-3-5	8	30000C	1	1	24
VRF gauss gun (veh)-10 HEAP	50	7	2-2-2	8	30000C	1	1	214
VRF gauss gun (mp)-10 dart	50	6	1-3-5	8	1000C	2	39	123
Tripod	5-	6	1-3-5	8	1000C	1	10	246
VRF gauss gun (mp)-10 HEAP	50	7	2-2-2	8	1000C	2	39	107
Tripod	50	7	2-2-2	8	1000C	1	10	214

Fired from vehicle mounts, all weapons have negligible recoil and tripod range.

Page 352, 355, Lasers (correction): The updated tables for lasers are below.

LASERS									
Type	Pulse	TL	Ammo	—Weight—			—Price—		Features
				Wpn	Ldd	Mag	Wpn	Ammo	
10cm DEI Carbine	0.01	8	DEI	4.33	19.5 PP	50 PP	2310	215 PP	H, L, O, R
5cm DEI Pistol	0.01	9	DEI	1.67	19.6 PP	50 PP	1250	320 PP	H, L, O, R
8cm DEI Rifle	0.02	9	DEI	4.21	44.3 PP	100 PP	2855	656 PP	H, L, O, R, RG
2cm CLC Pistol	0.01	13	10x30 CLC	2.64	3.26	14	2535	1.5/23.7	H, L, O, R
3cm CLC Carbine	0.02	13	13x39 CLC	4.78	5.7	10	4650	3/34.2	H, L, O, R, RG
4cm CLC Rifle	0.04	13	16x48 CLC	8.87	10.71	10	8800	6/68.4	H, L, O, R, RG
6cm CLC SSL	0.06	14	27x80 CLC	59.39	132.5*	100	57,835	27/2980.8	H, L, O, R

Mag: Weight of power pack alone for DEI lasers, weight of loaded weapon for CLC lasers.

\*Weapon is fired from a tripod with mass: 66.25 kg and price: Cr763 not included in figures above.

Features: H = weapon is capable of firing a high-capacity pulse, i.e., fewer high-powered shots in a combat turn rather than the several less powerful shots permitted by the weapon's ROF; L = Laser sight; O = Optic sights; R = ruggedized to grenade standards; RG = RAM rifle grenade adapter.

Weapon	ROF	Dam (S-M-L-E)	Pen	Blk	Mag	Range
10cm DEI Carbine-8	SA1	5-3-1-1	Nil	4	50 PP	200
	1x3	3-1-1-0	Nil	4	50 PP**	200
	1x10	2-1-0-0	Nil	4	50 PP**	200
5cm DEI Pistol-9	SA2	5-3-1-1	Nil	2	50 PP*	90
	SA1	7-4-2-1	Nil	2	25 PP*	90
	2x3	3-2-1-0	Nil	2	50 PP**	90
	2x10	2-1-0-0	Nil	2	50 PP**	90
8cm DEI Rifle-9	SA2	7-4-2-1	Nil	4	50 PP*	160
	SA1	10-5-3-1	Nil	4	25 PP*	160
	2x3	4-2-1-1	Nil	4	50 PP**	160
	2x10	2-1-1-0	Nil	4	50 PP**	160
2cm CLC Pistol-13	SA3	5-5-3-1	Nil	2	14†	90
	3x3	3-3-2-1	Nil	2	14†	90
	3x10	2-2-1-0	Nil	2	14†	90
3cm CLC Carbine-13	SA3	7-5-3-1	Nil	4	10†	300 (260)
	3x3	4-3-2-1	Nil	4	10†	300 (260)
	3x10	2-2-1-0	Nil	4	10†	300 (260)
4cm CLC Rifle-13	SA3	10-10-7-3	Nil	5	10†	300 (260)
	3x3	6-6-4-2	Nil	5	10†	300 (260)
	3x10	3-3-2-1	Nil	6	10†	300 (260)
6cm CLC SSL-13	SA5	21-21-21-16	Nil	8	100†	300 (260)‡
	5x3	12-12-12-9	Nil	8	100†	300 (260)‡
	5x5	10-10-10-7	Nil	8	100†	300 (260)‡
	5x10	7-7-7-5	Nil	8	100†	300 (260)‡
	5x50	3-3-3-2	Nil	8	100†	300 (260)‡

Parenthetical figure in range column is the iron sight short range.

ROF column shows number of bursts "N" per combat turn and number of shots "S" in each burst in the format "NxS."

\*Each shot at the high-powered rate (SA1) counts as two shots at the low-powered rate (SA2).

\*\*Each burst consumes ammunition energy equivalent to one shot at the SA2 rate.

†One CLC cartridge is used per SA shot or per burst, not one cartridge per shot in the burst.

‡Range on tripod is 300, regardless of sights.

Page 352, Small Arms (correction): The updated tables for small arms are below.

PISTOLS									
Caliber	TL	Ammo	Empty	Weight Loaded	Ammo	Mag	Price Wpn	Price Ammo	Features
5mm revolver	5	5x22mm	0.658	0.679	0.021	6R	89.7	0.14/0.84	—
7mm revolver	5	7x23mm	0.783	0.832	0.049	7R	107.5	0.28/1.96	—
9mm revolver	4	9x20mm-4	0.816	0.876	0.06	6R	110	0.4/2.4	—
9mm revolver	5	9x20mm-4	0.836	0.896	0.06	6R	114	0.4/2.4	—
9mm magnum rev.	5	9x33mm	1.132	1.234	0.102	6R	158	0.68/4.08	—
10mm snub revolver	8	10x17.5mm	0.915	0.981	0.066	6R	117.8	0.44/2.64	—
10mm snub auto	8	10x17.5mm	1.044	1.198	0.154	14/0.119	160	0.44/8.16	—
5mm body pistol	8	5x27mm	0.55	0.662	0.112	28/0.077	280.8	0.48/16.44	—
7mm autopistol	6	7x30mm	0.884	1.01	0.126	14/0.097	173.6	0.36/6.04	—
9mm autopistol	6	9x20mm-6	0.908	1.018	0.11	11/0.09	169.6	0.4/5.4	—
4mm gauss pistol	13	4x20mm/15	0.768	0.785	0.0175	35/0.207	248.5	0.01/1.35	—

Round	ROF	Dam	Pen	Blk	Mag	-Recoil-		
						SS	Brst	Rng
5mm revolver-5 ball	DAR	-1	Nil	1	9R	3	—	8
7mm revolver-5 ball	DAR	1	Nil	1	7R	3	—	10
9mm revolver-4 ball	SAR	1	Nil	1	6R	4	—	10
9mm revolver-5 ball	DAR	1	Nil	1	6R	4	—	11
9mm magnum revolver-5 ball	DAR	2	1-Nil	1	6R	3	—	13
10mm snub revolver-8 HE	DAR	3	Nil	1	6R	3	—	3
10mm snub revolver-8 HEAP-9	DAR	3	2-2-2	1	6R	3	—	3
10mm snub revolver-8 tranq	DAR	-1*	Nil	1	6R	3	—	4
10mm snub auto-8 HE	SA	3	Nil	1	14	3	—	4
10mm snub auto-8 HEAP-9	SA	3	2-2-2	1	14	3	—	4
10mm snub auto-8 tranq	SA	-1*	Nil	1	14	2	—	4
5mm body pistol-8 DS	SA	1	Nil	0	28	3	—	5
7mm autopistol-6 ball	SA	1	Nil	1	14	3	—	11
9mm autopistol-6 ball	SA	2	Nil	1	11	3	—	13
4mm gauss pistol-13 dart	S	2	Nil	1	35	5	11	11
4mm gauss pistol-13 HEAP	S	3	2-2-2	1	35	5	11	8
4mm gauss pistol-13 tranq	5	-1*	Nil	1	35	4	9	7

\*In addition to the -1 damage, see **Traveller**, page 350 for other effects of tranq rounds.

Page 355, 357, High Energy Weapons (correction): The updated tables for high energy weapons are below.

HIGH ENERGY WEAPONS										
Weapon	TL	Pulse	Ammo	Weight			Price			
				Empty	Ldd	BP	Mag	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/comp	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	

The notation "comp" indicates that the weapon is fitted with a recoil compensator in the backpack.

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

The notation "c" indicates a weapon fitted with a recoil compensator.

The *Damage* and *Penetration Rating* (short/medium-long-extreme) columns are used for firing against personnel. The *Penetration Value* (short-medium-long-extreme) is used for firing at vehicles.

### PLASMA BAZOOKA

Weapon	TL	Pulse	Weight			Price			
			Ammo	Empty	Ldd	BP	Mag	Wpn	Ammo
10cm Plasma Bazooka	10	2.88	10 PFC	34.6	45	—	1i	20,736	518.4

Weapon	ROF	Dam	C-B	Pen Rtg	Pen Val	Blk	Mag	Recoil	Range
10cm Plasma Bazooka	SS	51	3-5	1-2-10	51-51-26-5	5	1i	—	170

**Page 357, Assault Rocket Launcher (correction):** The updated tables for high energy weapons are below.

### ASSAULT ROCKET LAUNCHER

Weapon	ROF	Dam	Blk	Mag	Range
6cm ARL-10 HE	1	9-35	12	4	200
6cm ARL-10 HEAP	1	6-25	12	4	200
6cm ARL-10 WP	1	2-15	12	4	200
6cm ARL-10 Flechette	1	10x50	12	4	200

TL: 10; Ammo: 6cm rocket.

Weapon Wt: 6 kg empty, 18.32 kg loaded; Ammo Wt: 1.2/12.32 kg.

Mag: 4-round detachable box magazine, 6.72 kg, Cr67.2; Weapon Price: Cr210.

Ammo Price: HE, Cr12.4; HEAP, Cr18.4; WP, Cr24.4; Flechette, Cr60.4.

**Page 357, Grenades (omission):** The statistics for ordinary Hand Grenades seems to have been omitted. There is also no listing for 4cm RAM grenades for use with weapons that have an integral grenade launcher.

### RAM SHOOT-THROUGH GRENADES

Type	Rng	IFR	Dam	Pen
4cm RAM HE-8	30	500	C: 3, B:15	Nil
4cm RAM HEAP-8	30	500	C:2, B: 5	33C
4cm RAM APERS (flech)-8	30	500	C: *, B: 20	Nil
4cm RAM HE-9	40	550	C: 3, B: 15	Nil
4cm RAM HEAP-9	40	550	C: 2, B: 5	33C
4cm RAM APERS (flech)-9	40	550	C: *, B: 20	Nil

**Mass:** 0.24 kg; **Price:** HE: Cr24, HEAP: Cr36, APERS (Flechette): Cr120.

\*2D6 in primary radius, 1D6 in secondary radius.

Flechette penetration is for the whole round; should it strike an armored surface, penetration for the flechettes is as for normal fragments.

### LOW-VELOCITY GRENADES

Type	TL	Rng	IFR	Dam	Pen	Bulk	Mag	-Recoil-	
								SS	Burst
4cm low-vel HE	8	100	400	C: 3, B: 15	Nil	3/4	1i	2	—
4cm low-vel HEAP	8	100	400	C: 2, B: 5	33C	3/4	1i	2	—

### HAND GRENADES

Type	Rng	Dam	Pen
HE/Frag, TLs 6-7	*	C: 3, B: 15	Nil
HE/Frag, TLs 8-9	*	C: 4, B: 15	Nil

**Mass:** 0.35 kg; **Price:** HE/Frag: Cr3.5.

\*See Thrown Weapons (basic rules, page 282) for range and deviation.

### 4cm Grenade Launcher

(Shoulder-Fired)

A folding stock, single shot, shoulder-fired grenade launcher, firing 4cm low-velocity propelled grenades.

Mass, Weapon: 2.1 kg (empty); 2.34 kg (loaded).

Mass, Grenades: 0.24 kg.

Price, Weapon: Cr450.

Price, Grenades: HE: Cr2.4, HEAP: Cr3.6.

**Page 357, Tac Missiles (correction):** The updated tables for Tac Missiles are below.

<b>TAC MISSILE WORKSHEETS</b>										
<i>TL</i>	<i>Guidance</i>	<i>MWt</i>	<i>LWt</i>	<i>MP</i>	<i>LP</i>	<i>C-B</i>	<i>Pen</i>	<i>Range</i>	<i>M/turn</i>	<i>AGL</i>
7	Laser Cmnd	11.2	11.0	249	7128	6-25	57C	7575	975	4
7	Homing	7.6	4.3	1018	538	4-25	1C	10,735	2500	5
9	Laser Desig.	13.8	126	614	13572	11-35	101C	12,470	1250	4
9	Homing	14.2	7.6	1536	571	7-25	2C	10,560	3900	6
11	Laser Desig.	19.4	167	646	16,036	17-45	113C	15,030	1950	6
11	Homing	14.2	7.6	1536	571	9-35	2C	15,835	3900	7
13	Laser Desig.	21	176	670	16,740	20-45	125C	13,530	1950	6
13	Homing	16.4	8.7	1539	582	4-25	53C	8900	7785	8

**Page 360, Vehicle Data, second column (correction):** Near the bottom of the right-hand column, the explanation reads, “H: Hull armor. The face of the turret is indicated...” This is incorrect; the sentence in question should read, “H: Hull armor. The face of the hull is indicated...”

**Page 360-365, Vehicle Data (correction, omission and addition):** Many of the vehicles have no listed configuration or an incomplete configuration. In addition, Travel Moves and grav vehicle Combat Moves need to be corrected. The notation Unarmored refers to the Unarmored Vehicles rule on Page 301, and the reference to turrets refer to the Hit Location rule on page 297. Any Travel or Combat moves that are not listed do not need correction.

Note that travel moves for ground vehicles assume that the vehicle is moving at a rate of 1.5 times its safe speed for a period of four hours. This means that a ground vehicle could go farther than this during a Four hour period. The absolute upper limit is twice the listed travel move, which translates to the vehicle’s driver making constant Formidable driving rolls for a period of four hours. Travel moves for aircraft and grav vehicles are in the format high flight speed/NOE speed. For NOE speed, the Travel Move is 1.5 times the safe speed for four hours, just as for ground vehicles. Because high flight speed is an absolute speed at high altitude, the high flight Travel Mode is four hours at this speed, with no need for driving/piloting checks (except in the case of bad weather, etc., at the referee’s discretion).

### HEAVY CARGO TRUCK

Tech Level: 5  
 Price: Cr 2540  
 Size: 28 kiloliters displacement = 2 tons (Mc)  
 Mass: 3.6 tons empty; 8.9 tons loaded  
 Power: 0.15 MW internal combustion engine  
 Maint: 5  
 Controls: Primitive mechanical  
 Life Support: Light, heat  
 Cargo: 4.5 tons  
 Crew: 1  
 Passengers: 1  
 Travel Move: 110/20  
 Combat Move: 25/5  
 Fuel Capacity: 600 liters hydrocarbon distillates  
 Fuel Consumption: 30 liters/hour (endurance of 20 hours)

#### Combat Statistics

Config: Open vehicle      HF: [1]  
 Susp: W (3)                      HS: [1]  
     HR: [1]  
     Deck: Open      Belly: 1

### GROUND CAR

Tech Level: 6  
 Price: Cr 2695  
 Size: 14 kiloliters displacement = 1 ton (Mc)  
 Mass: 2.96 tons empty, 3.79 tons loaded  
 Power: 0.2 MW improved int. comb. engine  
 Maint: 2  
 Controls: Primitive mechanical  
 Life Support: Light, heat  
 Cargo: 175 kilograms  
 Crew: 1  
 Passengers: 3  
 Travel Move: 325/65  
 Combat Move: 75/15  
 Fuel Capacity: 250 liters hydrocarbon distillates  
 Fuel Consumption: 50 liters/hour (endurance of 5 hours)

#### Combat Statistics

Config: Open vehicle      HF: [1]  
 Susp: W (2)                      HS: [1]  
     HR: [1]  
     Deck: Open      Belly: 1

## HOVERCRAFT

Tech Level: 7  
Price: Cr289,025  
Size: 56 kiloliters displacement = 4 ton (Mc)  
Mass: 8.4 tons empty, 13.5 tons loaded  
Power: 0.45 MW gas turbine power plant, plus a turbofan thruster generating 5.4 tons of thrust. (0.0274 MW excess power)  
Maint: 5  
Controls: Electronic, with tech level 7 land navigation  
Commo: 300-km radio  
Sensors: 0.3-km HRT  
Life Support: Light, heat  
Cargo: 1.25 tons  
Crew: 1  
Passengers: 7  
Travel Move: 800/605  
Combat Move: 185/140  
Fuel Capacity: 3400 liters hydrocarbon distillates  
Fuel Consumption: 783 liters/hour (endurance of 4.34 hours)

### Combat Statistics

Config: Standard	HF: 1
Susp: H (4)	HS: 1
	HR: 1
Deck: 1	Belly: 1

## RANGE TRUCK

Tech Level: 8  
Price: Cr3948  
Size: 14 kiloliters displacement = 1 ton (Mc)  
Mass: 1.9 tons empty, 3.65 tons loaded  
Power: 0.2 MW improved internal combustion engine. (0.0295 MW excess power)  
Maint: 1  
Controls: Enhanced electronic  
Life Support: Light, heat  
Cargo: 1 ton  
Crew: 1  
Passengers: 1  
Travel Move: 300/130  
Combat Move: 70/30  
Fuel Capacity: 550 liters hydrocarbon distillates  
Fuel Consumption: 50 liters/hour (endurance of 11 hours)

### Combat Statistics

Config: Open vehicle	HF: [1]
Susp: W (2)	HS: [1]
	HR: [1]
Deck: Open	Belly: 1

## TRACKED ATV

Tech Level: 7  
Price: Cr 56,520  
Size: 42 kiloliters displacement = 3 tons (Mc)  
Mass: 18.3 tons empty, 27 tons loaded  
Power: 0.6 MW gas turbine power plant. (0.095 MW excess power)  
Maint: 9  
Controls: Electronic, with tech level 7 land navigation  
Commo: 300-km radio  
Sensors: 0.3-km HRT  
Life Support: Light, heat, pressurized, extended life support.  
Cargo: 1.75 tons  
Crew: 1  
Passengers: 4  
Travel Move: 110/85/13  
Combat Move: 25/20/3  
Fuel Capacity: 6500 liters hydrocarbon distillates  
Fuel Consumption: 180 liters/hour (endurance of 36 hours)

### Combat Statistics

Config: Standard	HF: 2
Susp: T 6	HS: 2
	HR: 2
Deck: 2	Belly: 2

## WHEELED ATV

Tech Level: 8  
Price: Cr126,308  
Size: 98 kiloliters displacement = 7 tons (Mc)  
Mass: 14 tons empty, 44.4 tons loaded  
Power: 1.44 Mw MHD turbine power plant. (0.0456 MW excess power)  
Maint: 11  
Controls: Enhanced electronic, with TL-8 land navigation  
Commo: 300-km radio  
Sensors: 0.3-km HRT  
Life Support: Light, heat, pressurized, extended life support (1 bunk), air lock.  
Cargo: 3 tons  
Crew: 1  
Passengers: 4  
Travel Move: 175/85/20  
Combat Move: 40/20/5  
Fuel Capacity: 27,000 liters hydrocarbon distillates  
Fuel Consumption: 288 liters/hour (endurance of 93.75 hours)

### Combat Statistics

Config: Standard	HF: 2
Susp: W (8)	HS: 2
	HR: 2
Deck: 2	Belly: 2



## ENCLOSED AIR RAFT

Tech Level: 12  
Price: Cr400,728  
Size: 42 kiloliters displacement = 3 tons (Mc)  
Mass: 4 tons empty, 7.06 tons loaded  
Power: 0.9 MW MHD turbine power plant, with HEPIaR thruster generating 6 tons of thrust. (0.0928 MW excess power)  
Maint: 1  
Controls: Dynamic linked, TL-10 flight avionics, TL-12 terrain following avionics, 2xModel 12-FLT computers  
Commo: 300-km radio, 30-km laser  
Life Support: Light, heat, basic life support (pressurized)  
Cargo: 2.375 tons  
Crew: 1  
Passengers: 3  
Travel Move: 1890/945  
Combat Move: 88/22  
Fuel Capacity: 3450 liters liquid hydrogen  
Fuel Consumption: 255 liters/hour (endurance of 13.5 hours)

### Combat Statistics

Config: Standard                      HF: 2  
Susp: Grav                                HS: 1  
    HR: 1  
Deck: 1    Belly: 1

## GRAV TANK

Tech Level: 13  
Price: Cr1,713,740 (Cr300 per pulse cartridge for the plasma gun)  
Size: 98 kiloliters displacement = 7 tons (Mc)  
Mass: 25.5 tons empty, 36.6 tons loaded  
Power: 3.3 MW fusion reactor (1 year endurance), with HEPIaR thruster generating 16 tons of thrust (0.0572 MW excess power).  
Maint: 7  
Controls: Holographically linked, TL-10 flight avionics, TL-13 terrain following avionics, 2xTL-13 FLT computers  
Commo: 300-km radio, 30-km laser communicator  
Sensor: 30-km passive EMS, 3-km active EMS, 3-km EMS jammer.  
Life Support: Light, heat, basic life support (pressurized)  
Cargo: 4 tons  
Crew: 3  
Passengers: 1  
Fire Control: -4 Diff Mods  
Armament: 12-Mj plasma cradle gun, coaxial 7.5mm MG, coaxial painting laser  
Stabilization: Advanced  
Ammo: 400 pulse plasma cartridges, 3000 rounds 7.5mm  
Travel Move: 2160/1020  
Combat Move: 100/24  
Fuel Capacity: 4000 liters liquid hydrogen  
Fuel Consumption: 200 liters/hour (endurance of 20 hours)

### Combat Statistics

Config: Turret                            TF: 60    HF: 60  
Susp: Grav                                TS: 8     HS: 8  
    TR: 4     HR: 4  
Deck: 8    Belly: 4

WEAPON VALUES				
Type	ROF	Range	Dam	Pen
12-Mj plasma cradle gun	SA1	350*	104	1-2-10
7.5mm MG	5	300	7	2-3-4
8cm coax laser rifle	SA3	300	—†	—†

\*The plasma gun's accuracy does not go down (and thus gunner task difficulty does not increase) with range. Range bands change the weapon's performance only by reducing penetration and defining the weapon's maximum range.

†The laser is powered direct from the tank's power plant, but only at target designation intensities.

## SPEEDER

Tech Level: 15  
Price: Cr396,067  
Size: 28 kiloliters displacement = 2 tons (Mc)  
Mass: 2.2 tons empty, 3- tons loaded  
Power: 0.9 MW fusion power plant (1 year endurance), with HEPIaR thruster generating 8 tons of thrust. (0.0747 MW excess power)  
Maint: 1  
Controls: Holographic linked, TL-10 flight avionics, TL-15 terrain following avionics, 2xModel 15-FLT computers  
Commo: 300-km radio  
Sensor: 3-km passive FMS  
Life Support: Light, heat, basic life support (pressurized)  
Cargo: 0.25 ton  
Crew: 1  
Passengers: 3  
Travel Move: 3600/1140  
Combat Move: 167/26  
Fuel Capacity: 2000 liters liquid hydrogen  
Fuel Consumption: 100 liters/hour (endurance of 20 hours)

### Combat Statistics

Config: Standard	HF: 2
Susp: Grav	HS: 1
	HR: 1
Deck: 1	Belly: 1

## GRAV BIKE

Tech Level: 15  
Price: Cr69,525  
Size: 7 kiloliters displacement = 0.5 ton (SM)  
Mass: 0.78 tons empty, 1.38 tons loaded  
Power: 0.135 MW fuel cell, with HEPIaR thruster generating 0.7 ton of thrust. (0.01475 MW excess power)  
Maint: 1  
Controls: computer linked, TL-6 flight avionics, 1xModel 9-FLT computer (no back-up)  
Life Support: Light, heat  
Cargo: 0.25 ton  
Crew: 1  
Passengers: 1 (restricted seat)  
Travel Move: 1200/240  
Combat Move: 56/6  
Fuel Capacity: 148.5 liters high grade hydrocarbon distillates, 50 liters LHyd.  
Fuel Consumption: 27 liters HGHD, 8.75 liters LHyd/hour (endurance of 5.5 hours)

### Combat Statistics

Config: Motorcycle	HF: [2]
Susp: Grav	HS: [1]
	HR: [1]
Deck: Open	Belly: 1

**Page 366, Starship Listings, Abbreviations (addition):** Under list of system damage capacity abbreviations, add Bs: Barbette Socket; ELS: Emergency Life Support; LSR: Large stateroom; MFD: Master Fire Director; SSR: Small Stateroom; TS: Turret Socket.

**Page 366, Scout/Courier (correction):** On the Damage Tables, delete PEMS Ant-1H (this now comes under the heading of All Others), and All Others should read (1h).

**Page 367, Far Trader (correction):** In the Damage Tables, delete LBth-(8h).

**Page 368, Free Trader (correction):** In the Damage Tables, CG should read (8h), delete TH-(2h). Remove the "5 - 13" entry, and move the "17, 18, 19" entry up one line (so that these rolls indicate Engineering damage).

**Page 369, Yacht (correction):** On the Damage Tables, delete PEMS Ant-1H (this now comes under the heading of All Others).

**Page 370, Gazelle-class Close Escort (correction):** Ranges for the 150-Mj Laser Turret should be 2, 4, and 8, not 10, 20, and 40. Make the following changes to the Systems section of the Damage Tables: PP-9H, FPP-8H, add MFD (2h), CG-1H, delete PEMS Ant-4H (this now comes under the heading of All Others).

**Page 371, Lab Ship (correction):** On the Damage Tables, Hangar should read 1H, delete PEMS Ant-1H (this now comes under the heading of All Others).

**Page 372, Patrol Cruiser (correction):** On the Damage Tables, Hangar should read 2H, add MFD-(2h) and delete PEMS Ant-1H (this now comes under the heading of All Others) and ELS-1H.

**Page 373, System Defense Boat (correction):** On the Damage Tables, add MFD (2h).

**Page 374, Subsidized Merchant (correction):** On the Damage Tables, Hangar should read 1H, FPP should read 8H, delete LBth-(13h) (these come individually under the heading of All Others).

**Page 375, Donosev-Class Survey Ship (correction and omission):** On the Damage Tables, delete PEMS-(2h) and PEMS Ant-3H, and add 240,000 km PEMS Ant-1H. Change FPP-6H to FPP-3H. Areas 12-15 are missing from the damage tables.

**Page 376, Subsidized Liner (correction):** On the Damage Tables, delete LBth-(20h) (these come individually under the heading of All Others). Area 13 is listed twice, once as "13 - 17", and once as "11 - 13"; alter the first occurrence to read "14 - 17".

**Page 377, Broadsword Class Mercenary Cruiser (correction):** Area 12 is listed twice, once as "12 - 15", and once as "6 - 12"; alter the second occurrence to read "6 - 11". On the Damage Tables, delete PEMS Ant-1H (this now comes under the heading of All Others).

**Page 378, Launch (correction):** On the Damage Tables, PP should read (6h).

**Page 378, Ship's Boat (correction):** On the Damage Tables, delete FPP-1H.

Second, the errata for the “Mark I, Mod 1” second printing **Traveller: The New Era** rulebook; all of this errata also applies to the first printing rulebook as well.

**Page 17, Homeworld Random Generation table (correction and clarification):** All occurrences of “Inc” for population should be “Low”. The chart of DMs is on the next page, making it easy to overlook and hard to use.

**Page 18, Homeworld Die Roll Modifiers table, Starport, Stellar Region DMs (correction):** The Stellar Region DMs should be: Regency, +0, Old Expanses +3, Pocket Empire +6, Wilds +8. The referee can modify these DMs to suit his campaign, or select a specific starport code from the Homeworld Characteristics Descriptions table.

**Page 18, Homeworld Die Roll Modifiers, Government (correction):** Remove the modifier for if Pop = Inc.

**Page 18, Homeworld Characteristics Descriptions table, World Population Descriptions (correction):** Remove the description of Incidental Population. Change the remaining descriptions as follows:

**Low Population (0-3):** Less than 10,000.

**Moderate Population (4-8):** 10,000 to 999,999.

**High Population (9-A):** More than 1 billion.

**Page 19, Attributes, first paragraph (addition):** When rolling attributes, make seven 2D6-1 rolls and discard the lowest. Assign the remaining six rolls in whatever order desired to STR, ACL, CON, INT, EDU, and CHR.

**Page 19, Homeworld Effects on Attributes, Population (correction):** Remove the reference to Incidental population worlds.

**Page 25, Careers, Promotions (correction):** The “one promotion per term of service” rule does not apply to enlisted ranks (see the Table of Ranks on page 57).

**Page 31, Age, Effects of Age (correction):** The instructions for 1D15 should read: “D15 number are generated by rolling 1D20 and rerolling results of 16-19. A roll of 20 is treated as 0.”

**Page 88, Nicosia Subsector, 1117 World Data (corrections):** Bhule (0334) should not have the Industrial trade classification.

**Page 103, Khulam Subsector, 1117 World Data (corrections):** Gresham (3138) should not have the Industrial trade classification. All size class VI stars should be size class V.

**Page 104, Khulam Subsector, 1201 World Data (corrections):** All size class VI stars should be size class V.

**Page 172, Regina Subsector, 1201 World Data (corrections):** Kinorb (2202) should have a tech level of 8. Enope (2205) should not have the Industrial trade classification. Rethe (2408) should have the Industrial trade classification.

**Page 174, HubWorlds, Government, second paragraph (correction):** The transition of government will not be complete until the end of 1200 (not 1120).

**Page 177, Ershur Subsector, 1117 World Data (corrections):** All size class VI stars should be size class V.

**Page 178, Ershur Subsector, 1201 World Data (corrections):** All size class VI stars should be size class V.

**Page 186, Universal World Profile Generation, Step 6 (correction):** Step 6 is incorrect; World Hydrographics should be, “2D-7 + World Atmosphere.”

**Page 187, Universal World Profile Generation, Step 12, Trade Classification (correction):** Atmosphere requirements for the Fluid (FI) trade classification should be “A-C”. For Barren and NonIndustrial, where the population code is 0, add note at bottom of table which reads, “For Barren world, population multiplier must be 0. For NonIndustrial, population multiplier must be 1+.” The population requirement for Low Population (Lo) worlds should be “3-”.

**Page 187, Universal World Profile Generation, Step 14, Population Multiplier (clarification):** The procedure described is fine for any world with a population code of 1+; for worlds with a population code of 0, treat a roll of 10 as “0”, meaning the world is uninhabited.”

**Page 187, Universal World Profile Generation, Step 16, Planetoid Belts (omission):** If there are gas giants in the system, apply the number of gas giants as a +DM to the die roll to determine if planetoid belts exist in the system.

**Page 188, Universal World Profile Tables, World Size (addition):** The table is missing the sizes for large and small gas giants. Small Gas Giants have a minimum diameter of 20,000km and a maximum diameter of 59,999km. Large Gas Giants have a minimum diameter of 60,000km and a maximum diameter of 120,000km.

**Page 188, Universal World Profile Tables, World Hydrographics (correction):** The entry for hydrographics code 3 should be Wet.

**Page 188, Universal World Profile Tables, World Population (correction):** Remove all mention of Incidental population. Codes 0-3 are Low population, 4-8 are Moderate population, and 9-A are High population.

**Page 188, Universal World Profile Tables, World Government (correction):** The following entries should be modified:

<i>Code</i>	<i>General Description</i>
0	<b>No Government Structure.</b> In many cases family, clan, or tribal bonds predominate.
D	<b>Religious Dictatorship.</b> Government by a religious, mystic, or psionic minority which has little regard for the needs of the citizenry.
E	<b>Religious Autocracy.</b> Government by a single religious, mystic, or psionic leader having absolute power

over the citizenry.

**Page 191, Collapse Effects Determination, Step 7, Government, second paragraph (clarification, correction and addition):** The existing rules on TEDs caused problems with other rules. The mechanisms below have the cleanest approach to working within existing rules.

Change the last sentence to read, "If the roll is less than the number of tech levels lost, the world's government automatically becomes a TED. Place the code Td to indicate this in the world's allegiance code, and roll 2d6 on the TED Government Type table to determine the form of the TED government. Find the result of the die roll on the table; the corresponding code is the world's government code."

TED GOVERNMENT TABLE		
2d6	Code	General Description
2	5	Feudal Technocracy
3	3	Self-Perpetuating Oligarchy
4	6	Captive Government
5	B	Non-Charismatic Leader
6	B	Non-Charismatic Leader
7	F	Totalitarian Oligarchy
8	F	Totalitarian Oligarchy
9	E	Religious Autocracy
10	D	Religious Dictatorship
11	A	Charismatic Dictatorship
12	C	Charismatic Oligarchy

**Page 191, Collapse Effects Determination, Step 7, Government, third paragraph (correction):** Change the remainder of Step 7 to read, "If the roll is equal to or greater than the tech level decline, or if the world's population code is 4 or less, determine the new government code by rolling 2d6 -7 + Population code, and comparing to the Government Types in the Wilds table." The note about which government description to use if in the Wilds is no longer needed.

**Page 191, Government Types in the Wilds table (correction):** Replace the current table with the following:

GOVERNMENT TYPES IN THE WILDS		
2D6	Code	General Description
1	0	No Government
2	2	Participating Democracy
3	4	Representative Democracy
4	A	Charismatic Dictatorship
5	C	Charismatic Oligarchy
6	Roll 2d6 on the "TED Government Type" table, and note Allegiance = Td	
7	D	Religious Dictatorship
8	F	Totalitarian Oligarchy
9	E	Religious Autocracy
10	8	Civil Service Bureaucracy
11	3	Self-Perpetuating Oligarchy
12	9	Impersonal Bureaucracy

Implementing this change does cause some issues with published material which have a Wilds government type. These can be easily identified as worlds having the Wi code in the Allegiance column. In such cases, make the following government changes:

Wi		New	
Code	General Description	Code	General Description
0	No Government Structure	0	No Government Structure
1	Tribal Government	0	No Government Structure
2	Participating Democracy	2	Participating Democracy
3	Representative Democracy	4	Representative Democracy
4	Charismatic Dictator	A	Charismatic Dictator
5	Charismatic Oligarchy	C	Charismatic Oligarchy
6	Roll 2D6 on the TED Government Type table, Allegiance = Td.		
7	Mystic Dictatorship	D	Religious Dictatorship
8	Totalitarian Oligarchy	F	Totalitarian Oligarchy
9	Mystic Autocracy	E	Religious Autocracy
A	Civil Service Bureaucracy	8	Civil Service Bureaucracy
B	Self-Perpetuating Oligarchy	3	Self-Perpetuating Oligarchy
C	Impersonal Bureaucracy	9	Impersonal Bureaucracy

**Page 192, Extended System Generation, Step 4, Primary Star Type and Luminosity Class (addition):** Star Type A, F and G class II and III stars are extremely rare; treat such results as class V.

**Page 192, Extended System Generation, Step 5, Decimal Classification (addition):** If a mainworld has already been created, type M V stars cannot have habitable worlds if the decimal classification is 4+; reroll such results other than 0-3.

**Page 192, Extended System Generation, Step 6, Companion Star Type and Luminosity Class (correction and addition):** Unless the primary star is class II, III, or IV, change all “D” results to class V. If two or more stars in the same system are class D, change them all to class V.

**Page 192, Extended System Generation, Step 7, Companion Orbit (correction and clarification):** Rather than determining the companion star’s orbit distance in AU (steps 8 and 9), Change the Far result to “Far (13+1D)” to determine the companion star’s orbit number (see the Orbital Distances Table, below). This also eliminates steps 8 and 9.

**Page 192, Extended System Generation, Step 11, Maximum Orbits (clarification):** The resulting number is the highest orbit number.

**Page 193, Extended System Generation, right column, Orbit Zones for Luminosity Classes III, IV, and V (correction):** Remove the entries from all three tables for star types B0 and B5.

**Page 194, Extended System Generation, Step 22, Planetoid Belts (omission):** If there are gas giants in the system, apply the number of gas giants as a +DM to the die roll to determine if planetoid belts exist in the system.

**Page 194, Extended System Generation, Step 34, Satellite Size (correction):** For Worlds, satellite size formula should be World Size – 1D.

**Page 196, Travel Movement table (correction):** Some table entries are incorrect:

<i>Unit</i>	<i>(in km/4 hours)</i>
Heavy cargo truck	85/10
Ground car	260/50
Hovercraft	240/195
Tracked ATV	150/65
Range truck	240/85
Wheeled ATV	175/65
Air Raft (open)	1440/260
G-Carrier	2880/260
Enclosed Air Raft	2880/260
Grav Tank	2400/345
Speeder	3360/390
Grav bike	720/85

**Page 198, Terrain and Travel (clarification):** Flying vehicles, including helicopters, aircraft, and grav vehicles may choose to fly above the terrain, therefore avoiding any terrain effects.

**Page 225, Step 6, Travel to 100 Diameters, 100 Diameters Travel Times table (correction):** This table is incorrect in almost every entry. The corrected table appears below:

<i>Burns</i>	<i>Planet Size Code</i>												
	<i>G-Hours</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>A</i>	<i>SG</i>
0.1	50m*	12.7	25.3	38.0	50.7	63.4	76.0	88.7	101.4	114.0	126.7	472.4	944.8
0.2	25m	6.3	12.7	19.0	25.3	31.7	38.0	44.3	50.7	57.0	63.4	236.2	472.4
0.3	17m*	4.2	8.4	12.7	16.9	21.1	25.3	29.6	33.8	38.0	42.2	157.5	315.0
0.4	13m*	3.2	6.3	9.5	12.7	15.8	19.0	22.2	25.3	28.5	31.7	118.2	236.2
0.5	10m*	2.5	5.1	7.6	10.1	12.7	15.2	17.7	20.3	22.8	25.3	94.5	189.0
0.6	9m*	2.1	4.2	6.3	8.4	10.6	12.7	14.8	16.9	19.0	21.1	78.7	157.5
0.7	*	1.8	3.6	5.4	7.2	9.1	10.9	12.7	14.5	16.3	18.1	67.5	135.0
0.8	*	1.6	3.2	4.8	6.3	7.9	9.5	11.1	12.7	14.3	15.8	59.0	118.1
0.9	*	1.4	2.8	4.2	5.6	7.0	8.4	9.9	11.3	12.7	14.1	42.5	105.0

**Page 226-227, Starship Operating Procedures, Step 14, In-System Transfer (correction):** The table is incorrect in almost every entry. The corrected table appears below:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0 (10)	100	250	400	700	1300	2500	4900	9700	19300	38500	76900	153700	307300	614500	1273900	2457700	4915300	9830500	19665900
1 (20)	X	150	300	600	1200	2400	4800	9600	19200	38400	76800	152600	307200	614400	1273800	2457600	4915200	9830400	19665800
2 (35)	X	X	150	450	1050	2250	4650	9450	19050	38250	76650	152450	307050	614250	1273650	2457450	4915050	9830250	19665650
3 (50)	X	X	X	300	900	2100	4500	9300	18900	38100	76500	152300	306900	614100	1273500	2457300	4914900	9830100	19665500
4 (80)	X	X	X	X	600	1800	4200	9000	18600	37800	76200	152000	306600	613800	1273200	2457000	4914600	9829800	19665200
5 (140)	X	X	X	X	X	1200	3600	8400	18000	37200	75600	151400	306000	613200	1272600	2456400	4914000	9829200	19664600
6 (260)	X	X	X	X	X	X	2400	7200	16800	36000	74400	150200	304800	612000	1271400	2455200	4912800	9828000	19663400
7 (500)	X	X	X	X	X	X	X	4800	14400	33600	72000	147800	302400	609600	1269000	2452800	4910400	9825600	19661000
8 (980)	X	X	X	X	X	X	X	X	9600	28800	67200	143000	297600	604800	1264200	2448000	4905600	9820800	19656200
9 (1940)	X	X	X	X	X	X	X	X	X	19200	57600	133400	288000	595200	1254600	2438400	4896000	9811200	19646600
10 (3860)	X	X	X	X	X	X	X	X	X	X	38400	114200	268800	576000	1235400	2419200	4876800	9792000	19627400
11 (7700)	X	X	X	X	X	X	X	X	X	X	76800	231400	538600	1198000	2380800	4838400	9753600	19589000	
12 (15380)	X	X	X	X	X	X	X	X	X	X	X	X	153600	460800	1120200	2304000	4761600	9676800	19512200
13 (30740)	X	X	X	X	X	X	X	X	X	X	X	X	X	307200	966600	2150400	4608000	9523200	19358600
14 (61460)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	659400	1843200	4300800	9216000	19051400
15 (127400)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1183800	3641400	8556600	18392000
16 (245780)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2457600	7372800	17208200
17 (491540)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4915200	14750600
18 (983060)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	9835400

Note that any distance over 120,000 light seconds will take the fastest ship listed in **Traveller** over one year to cross, so the parts of this table dealing with the orbits 13+ are especially meaningless. Note also that any ship can jump to any orbit 7+ faster than it can cross the distance in normal space.

**Page 236, Passengers and Cargo, Step 5, Sourceworld Trade Classifications (correction):** Atmosphere requirement for the Industrial (In) trade classification should be “2–, 4, 7, 9”. Atmosphere requirement for the Fluid Oceans (FI) trade classification should be “A-C”. Population requirement for Low Population (Lo) worlds should be “3–”.

**Page 240, Sale Price of Cargo, Step 3, Tech Level Effects (clarification):** The price formula for cargo should be calculated as:

$$P = p + [p \times (St - Dt)], \text{ where:}$$

P = final price

p = adjusted price so far

St = source world TL x 0.10

Dt = destination world TL x 0.10

**Page 240, Sale Price of Cargo, Step 3, Tech Level Effects (addition):** If the item being sold is:

- A natural resource, ignore the tech level effects.
- A processed resource, use the tech level effects as given.
- Manufactured goods, always use tech level difference as a minus (–).
- Information, use the tech level effects as given.
- Novelty, always use the tech level difference as a plus (+).

**Page 248, Psionics Skill Cluster table (omission):** The Foreboding skill of the Arcana sub-cluster is missing from the table.

**Page 262, Robot Designs (correction):** These designs are updated on pages 80 and 83 of Vampire Fleets.

**Page 297, Damage from Fire, Penetration (correction):** In the first full paragraph, the example fusion gun should have penetration ratings of 1-2-10, not “<sup>1</sup>/<sub>2</sub>-1-4” This changes its rating as a vehicle gun to 10-10-5-1.

**Page 308-309, Other Technical Effects, Hovercraft (correction):** The last sentence should read, “Hovercraft absolute movement rates are quartered in Very Thin and halved in Thin atmospheres.” The remainder of the sentence, including the part on page 309, should be deleted (the part about hovercraft movement rates being multiplied by 1.5 in dense atmospheres and by 2 in Exotic, Corrosive, and Insidious atmospheres).

**Page 321, Effects of Damage, Hit-Type Systems, Power Plant (addition):** For hits on a power plant, divide the MW rating of the power plant by the number of hits it can sustain. The result is the number of MW lost per hit or per system reset result. Referees who own Brilliant Lances will note the greater detail of damage results in that game, and should feel free to use these results when judging space combat encounters.

**Page 321-322, Effects of Damage, Quantity-Type Systems, Fuel (clarification):** The rules provide a die roll for determining how many tons of fuel are lost as a result of battle damage. Since starship fuel is given in cubic meters, and not tons, in the starship descriptions, this rule needs a reminder that one ton is 14 cubic meters.

**Page 326, Minor and Non-Destroying Damage, Fuel (clarification):** The rules provide a die roll for determining how many tons of fuel are lost as a result of battle damage. Since starship fuel is given in cubic meters, and not tons, in the starship descriptions, this rule needs a reminder that one ton is 14 cubic meters.

**Page 343, Tactical Thermal Viewer (correction):** The Tactical Thermal Viewer should have a short range of 300 meters.

**Page 347, Remote Deployable Passive Sensor (correction):** The weight of the RDPS should be 100 tons.

**Page 349, Starship Missiles (correction and addition):** On the Missiles table, delete the line for the TL-8 missile; there is no such weapon. The G-Turns for the TL-12 semi-independent missile should be “9/9,” not “8/8,” and for the TL-14 semi-independent missile should be “7/7,” not “8/8.”

All missiles on the table have an armor value of 3. The semi-independent missiles have an endurance of 10 hours; after this time they behave as normal controlled missiles.

**Page 349, Nuclear Dampers (correction):** The masses and prices on the Nuclear Dampers table should be changed as follows:

NUCLEAR DAMPERS				
TL	Description	Mass	Price	Power
12	Damper Barbette	76.2	2.05	15
13	Damper Barbette	73.2	2.8	9
14	Damper Barbette	60.8	4.06	6
15	Damper Turret	33.5	4.53	3

**Page 349, Sandcasters (correction and addition):** On the Sandcasters table, the Beam Reduction of the TL-8 sandcaster should be 1D6x5, not "1D6x6." Beneath the table, add the note that all listed sandcasters mass 50 tons and draw 1 MW of power.

**Page 350, Archaic Firearms (correction):** These designs are updated on pages 101 and 104 of World Tamer's Handbook.

**Page 351, Slug Rifles and Carbines (correction):** LAG Flechette short range damage should read, "2x9 hits\*\*", and add the note, "\*\*\*9 hits, each with a damage value of 2."

**Page 352, Shotguns (correction):** The medium range ROF for the TL-4 pump shotgun should read PA (10), and the medium range for the TL-7 auto shotgun should read SA (10).

**Page 355, Heavy Weapons, Plasma Bazooka (correction):** The bazooka is a 10cm weapon, not "9cm," its ammo is 10x330, not "9x320," its empty weight is 34.6, not "27," its loaded weight is 45, not "43.2," its round weight is 10.4, not "16.2," its weapon price is 20,736, not "67,500," its round price is 520, not "400," its damage value is 51, not "16," its penetration values are 51-51-26-5, not "16-16-8-2," and its short range is 170, not "60."

**Page 356, Plasma Rifles and Fusion Rifles (correction):** The following changes are required for the high-energy weapons:

The 4.3cm plasma rifle has a loaded weight of 15.65, not "17.4," a magazine of 10, not "5," a weapon price of 4320, not "18,000," an ammo price of 211, not "153," a damage value of 23, not "9," penetration values of 23-23-12-2, not "9-9-5-1," and a short range of 80, not "20."

The 4.7cm plasma rifle has a loaded weight of 36.2, not "35.53," a magazine of 20, not "10," a weapon price of 4800, not "20,000," an ammo price of 539, not "361," a damage value of 27, not "10," penetration values of 27-27-14-2, not "10-10-5-1," and a short range of 90, not "20."

The 4.1cm compensated plasma rifle has a loaded weight of 12.9, not "14.5," a magazine of 8, not "4," a weapon price of 10,880, not "40,000," an ammo price of 98, not "87," damage value of 27, not "10," penetration values of 27-27-14-3, not "10-10-5-1," single-shot recoil of 5, not "7," and short range of 90, not "20."

The 4.7cm fusion rifle has a loaded weight of 37.8, not "40.1," a magazine of 20, not "10," a weapon price of 9600, not "72,000," ammo price of 331, not "257," damage value of 33, not "13," penetration ratings of 1-2-10, not "1/2-1-4," penetration values of 33-33-17-3, not "26-26-13-3," bulk of 5, not "6," and short range of 160, not "90."

The 4.7cm compensated fusion rifle has a loaded weight of 19.4, not "21 .7," a magazine of 8, not "4," a weapon price of 24,000, not "156,000," ammo price of 147, not "131," damage value of 33, not "13," penetration ratings of 1-2-10, not "1/2-1-4," penetration values of 33-33-17-3, not "26-26-13-3," bulk of 5, not "6," single-shot recoil of 5, not "6," and short range of 160, not "60."

The 5.1 cm compensated fusion rifle has a loaded weight of 21.2, not "24," a magazine of 8, not "4," weapon price of 15,000, not "97,500," ammo price of 183, not "163," damage value of 37, not "14," penetration ratings of 1-2-10, not "1/2-1-4," penetration values of 37-37-19-4, not "28-28-14-4," single-shot recoil of 4, not "5," and short range of 180, not "80."

**Page 363, Aircraft & Vehicles, G-Carrier (correction):** The G-Carrier has the following changes:

Its price is 718,264, not "719,204," its loaded mass is 28.5, not "29.4," its 2-Mj plasma cradle gun has a short range of 140, not "60," a damage value of 42, not "16," and concussion-burst ratings of 2-5.

**Page 364, Aircraft & Vehicles, Grav Tank (correction):** The Grav Tank has a price of 1,713,740, not "2,010,979," a loaded mass of 36.6, not "41.8," and its 12-Mj plasma cradle gun has a short range of 350, not "360," a damage value of 104, not "40," and concussion-burst ratings of 11-15.

**SURVIVAL MARGIN** (0301, 1993)

No errata identified.

**DELUXE TRAVELER: THE NEW ERA** (0302, 1993)This included Player Aid Cards as well as information for Diaspora sector worlds for the players and referees.  
No errata identified.**BRILLIANT LANCES** (0303, 1993)

Note that some errata was included in the second printing (noted as "Mark I, Mod 1" on the table of contents page) in February 1994.

**Pages 348-349, Starship Weapons (correction):** All of these are from *Fire, Fusion, & Steel*, page 153 (Appendix 1: Standard Socket-sized Weapons and Defenses for Installation Aboard Spacecraft). The differences are largely due to the use of slightly different rounding conventions from an earlier version of the design sequence.**SAMPLE STANDARD TURRET AND BARBETTE SOCKET LASERS**

TL	Description	MW	Mcr	Mass	Short	Medium	Long	Extreme
10	60-Mj laser turret	1.7	1.56	55	1:1/6-19	2:1/6-19	4:1/3-9	8:1/2-5
11	80-Mj laser turret	2.2	2.08	59	2:1/7-22	4:1/7-22	8:1/6-19	16:1/3-10
11	150-Mj laser barbette	4.2	6.56	119	10:1/10-31	20:1/5-17	40:1/3-8	80:1-4
12	120-Mj laser turret	3.3	0.94	65	4:1/9-27	8:1/9-27	16:1/6-19	32:1/3-9
13	150-Mj laser turret	4.2	0.72	68	1:1/10-31	2:1/10-31	4:1/10-31	8:1/10-31
13	106-Mj laser turret	2.9	1.45	59	10:1/8-26	20:1/6-20	40:1/3-10	80:1/2-5
14	150-Mj laser turret	4.2	0.72	63	2:1/10-31	4:1/10-31	8:1/10-31	16:1/10-31
14	300-Mj laser barbette	8.3	2.16	131	10:1/14-43	20:1/14-43	40:1/8-26	80:1/4-13
15	150-Mj laser turret	4.2	0.86	57	10:1/10-31	20:1/10-31	40:1/10-31	80:1/10-31

**MW:** Required power input in megawatts; **Mcr:** Price in millions of credits; **Mass:** In tones; **Short, Medium, Long, Extreme:** Combat performance at these ranges: range in hexes: penetration rating-damage value.**TURRET AND BARBETTE SOCKET MISSILE LAUNCHERS**

Type	TL	Missiles	Volume	Weight	Power	Price
Turret	8	2	42	28.4	0.15	0.08
Barbette	8	5	84	70.4	0.15	0.11

**Volume:** In kiloliters; **Weight:** In tons; **Power:** In megawatts; **Price:** in millions of credits (without missiles).**SAMPLE SPACE MISSILES FOR SOCKET MISSILE LAUNCHERS**

TL	Guidance	Yield	Mass	Mcr	G-Turns	Hits	Damage	Range	Comm	Sensor	Signatures
9	Controlled	50	7	0.85	12/12	1D6	1/14-43	0	10L	—	+2/+2/+2/+2/+1
11	Controlled	100	7	0.95	12/12	1D6	1/18-56	0	10L	—	+2/+2/+2/+2/+1
12	Semi-Ind.	500	7	2.0	9/9	1D6	1/25-79	0	10L	1P	+4/+3/+4/+3/+1
13	Controlled	200	7	1.15	12/12	1D6	1/21-66	0	10L	—	+2/+2/+2/+2/+1
14	Semi-Ind.	500	7	2.7	7/7	1D6	1/25-79	0	10L	3P	+4/+3/+4/+3/+1
15	Controlled	500	7	1.25	12/12	1D6	1/25-79	0	10L	—	+2/+2/+2/+2/+1

**Yield:** Warhead yield; **Mass:** In tons; **Mcr:** Price in millions of credits; **G-Turns:** Number of G-turns of fuel carried (followed by maximum number of G-turns which can be used in a single turn); **Hits:** Die roll for number of hits from the laser; **Damage:** Damage value of each laser hit; **Range:** Absolute range in hexes (0 = same hex only); **Comm:** Type of communicator (L=laser, M=maser, R=radio); **Sensor:** Sensor range (in hexes) and type (R=radar, T=high-resolution thermal, L=ladar, A=active EMS, P=passive EMS); **Signatures:** Missile's signature vs. radar, active EMS, HRT, passive EMS, and fire.The semi-independent missiles have an endurance of 10 hours; after this time, they behave as normal controlled missiles. All missiles on the table have an armor value of 3. **Standard missiles have a volume of 7 cubic meters (1/2 a displacement ton).**

**NUCLEAR DAMPERS  
FOR STANDARD TURRET AND BARBETTE SOCKETS**

<i>TL</i>	<i>Description</i>	<i>Mass</i>	<i>Price</i>	<i>Power</i>
12	Damper Barbette	76.2	2.05	15
13	Damper Barbette	73.2	2.8	9
14	Damper Barbette	60.8	4.06	6
15	Damper Turret	33.5	4.53	3

**Mass:** In tons; **Price:** In millions of credits; **Power:** In megawatts.

**SANDCASTERS FOR STANDARD TURRET SOCKETS**

<i>TL</i>	<i>Price</i>	<i>Cannisters Carried</i>	<i>Beam Reduction</i>
8	0.60	16	1D6x5
9	0.65	18	1D6x5
10	0.70	20	1D10x5
11	0.75	24	1D10x5
12	0.80	30	1D10x5
13	0.85	35	2D6x5
14	0.90	40	2D6x5
15	1.00	50	2D10x5

**Price:** Price of turret in millions of credits; **Cannisters Carried:** Number of sand canisters carried in turret; **Beam Reduction:** Beam reduction made per successful beam interception.

*All listed sandcasters mass 50 tons and draw 1 MW of power.*

## **FIRE, FUSION, & STEEL (0304, 1993)**

The corrections for **Fire, Fusion and Steel** can be divided into two parts. First, the errata needed to bring the first printing up to match the “Mk I, Mod 1” second printing (released in January 1994).

**Page 11, left column, Interior Structure (correction):** All instances of “interior structure” should read *internal structure*.

**Page 11, right column, Surface Area (clarification):** Surface area in square meters is the hull material volume (after hull form and airframe modifications but without adjustment for hull thickness) multiplied by 100.

**Page 12-13, Step 5: Weaponry, Sockets (addition):** Add the following expanded rules at the end of the Sockets section:

**Socket Extenders:** Turrets and barbettes may be mounted on extended mounts to achieve better arcs of fire. These are only practical on larger ships. Bays and spinal mounts may not be mounted on extenders.

When mounted on an extender, a turret or barbette has its arc of fire increased by one arc on each side of its normal arc. For example, a turret mounted in hit location 6 of a box hull form would normally have an arc of fire of 2, 3, and 4. If mounted on an extender, it would cover 1-5. Because of location, many arcs of fire will only be increased by one arc. A turret at hit location 5 on the same box hull, normally arcs 1-3, would only be increased to 1-4.

Each extender is a projection from the hull which requires additional armor and internal structure to support it. Each turret extender requires a basic shell volume of 1.43 cubic meters, which is modified by the hull material and thickness values of the spacecraft’s hull as calculated in Step 1. It also requires a basic internal structure volume of 1.43 cubic meters, which is modified by the same maximum G and hull material modifiers as the craft’s hull.

Barbette extenders require 2.18 cubic meters of basic shell volume and 2.18 cubic meters of basic internal structure volume, also modified by the same hull thickness, G performance, and hull material values of the craft’s hull.

Each such extender has a standard turret or barbette socket on the end of it which can accommodate any standard turret or barbette. The structural requirements of the extender itself are required for the spacecraft; no modifications are required for the weapon fitted in it. A spacecraft may mount no more than two turret extenders or one barbette extender per 500 displacement tons of hull. The minimum hull volume for a single turret extender is 250 tons.

Any spacecraft fitted with a turret or barbette extender becomes unstreamlined, regardless of its original hull configuration, Ships equipped with one or more extenders are treated as being one target size larger (i.e., small becomes medium, medium becomes large) when being scanned by active sensors.

**Page 15, right column, Electronics (clarification):** Under Electronics, in the paragraph for ECM systems, modify the following sentence.

“For the radiators, allow 1 minor hit for each *whole* MW of power allocated to the EMM system (*i.e.*, drop fractional MW).”

**Page 16, 7. Determine Maintenance Points (addition):** Add the following expanded rules to the end of the Determine Maintenance Points section:

Note that maintenance points may be temporarily increased by environment (see “Carrier Aircraft” page 30 and **TNE** page 302). Spacecraft constantly exposed to saltwater use a different multiplier for saltwater corrosion than aircraft do (page 30), a constant value of 1.5, as all spacecraft are sealed. Hybrid spacecraft that use air-breathing engines in atmospheres are also subject to “Atmospheric Performance,” page 64.

**Page 19, Step 8 – Transmission (correction):** Price under the transmission tables should be in  $C_r$ , not  $M_{Cr}$ .

**Page 20, Design Evaluation, 2. Record Design Features (correction):** In the third paragraph, *loaded weight should also include fuel*.

**Page 21, Design Evaluation, 5. Determine Maintenance Points (addition):** Add the following expanded rules to the end of the Determine Maintenance Points section:

Note that maintenance points may be temporarily increased by environment (see “Carrier Aircraft” page 30, “Atmospheric Performance,” page 64, and **TNE** page 309). Ground vehicles constantly exposed to saltwater use different multipliers for saltwater corrosion: 3 and 1.5 rather than 5 and 2 (page 30).

**Page 23, Lift Vehicle Design, Chassis, left column (correction):** On the additional armor table, the increase per cm for Sides (both) should read 30%, not 15%.

**Page 23, Lift Vehicle Design, Chassis, left column, fifth paragraph (clarification):** Two paragraphs later, “a moderate slope multiplies the effective armor value of a face by 1.5. A radical slope *multiplies* the effective armor value of a face by 2.”

**Page 24, left column, Suspension table (clarification):** For notes under Suspension table, note labeled “KI” should read *Vol* and note labeled “ $M_{Cr}$ ” should read *Price*.

**Page 26, Design Evaluation, 2. Record Design Features (addition):** Under Record Design Features, the paragraphs for Combat Move and Travel Move apply only to grav vehicles. Add the following two paragraphs to each section, respectively:

Combat move (in meters per combat turn) of an air cushion vehicle is maximum speed (kph)  $\times 0.463$  for road speed, and cruising speed  $\times 0.463$  for cross-country speed. Cross-country speed is also its water speed.

Travel moves for an air cushion vehicle (in km per four hours) are 4.32 times its combat move above.

**Page 26, Design Evaluation, 5. Determine Maintenance Points (addition):** Add the following expanded rules to the end of the Determine Maintenance Points section:

Note that maintenance points may be temporarily increased by environment (see “Carrier Aircraft” page 30, “Atmospheric Performance,” page 64, and **TNE** page 309). Lift vehicles constantly exposed to saltwater use different multipliers for saltwater corrosion: 3 and 1.5 rather than 5 and 2 (page 30).

**Page 27, Aircraft Design, Step 1A: Envelope (Airships Only) (correction):** On the upper Airship Envelope table, the entry for non-rigid TL-6 Helium should be *0.009*, not “0.09.” Also, the lower table should read “Useful Lift (Atmosphere 8, 9)” and not “6, 7.”

**Page 30, left column, Carrier Aircraft (clarification):** Modify the following sentence: “Normal aircraft carried aboard ship (*or operating in a tainted atmosphere—referee’s discretion*) require 5 times their normal MP to remain functional *due to saltwater ingestion.*”

**Page 31, Step 3: Thrust, left column, third paragraph (addition):** Add the following paragraph after the third paragraph: “Wing-in-Ground aircraft use either propeller or jet propulsion, but because of the nature of the WIG design and its flight regime, the thrust from these sources is multiplied by 5.”

**Page 35, Rating Your Design (addition):** Add the following section at the end of the page’s text:

**Determine Maintenance Points:** Fixed and rotary-wing aircraft determine maintenance points just as spacecraft do, except that aircraft do not subtract their hull mass. Airships use the same system but have their maintenance points calculated from their *actual mass* (not useful lift), which must first be determined.” Multiply the lift envelope volume in displacement tons by the envelope weight from the table on page 27. This is the envelope mass. Add envelope mass to useful lift, and the result is the actual mass.

Note that maintenance points may be temporarily increased by environment (see “Carrier Aircraft” page 30, “Atmospheric Performance,” page 64, and **TNE** page 309).

**Page 35, Rating Your Design, Size table (addition):** Add the following material to the size table at the foot of the page: “Diff Mod” column should read, “Target Size Diff Mod.” Add a new column, entitled, “Spotting Diff Mod.” The new column should have the following values: SM: +2, Mc: +1, VS: —, S: –1, M: –2, L: –3, VL: –4, G: –5.

**Page 39, Rigid Body Armor, Armor Values (addition):** Add the following sentence to the end of the Armor Values section: Armor value 1 has a melee armor value of (2). All armor values of 2+ have melee values equivalent to their listed value.

**Page 41, Powered Exoskeletons table (correction):** Changed values are *italicized*.

POWERED EXOSKELETONS						
<i>T</i>	<i>SM</i>	<i>MM</i>	<i>MCr</i>	<i>SV</i>	<i>AGL</i>	<i>INIT</i>
10	<i>0.23</i>	<i>0.42</i>	<i>0.11</i>	100	–3	–2
12	0.1	0.23	<i>0.14</i>	100	–2	–1
12	0.2	0.42	<i>0.20</i>	120	–3	–2
14	0.05	<i>0.3</i>	<i>0.21</i>	100	–1	–1
14	0.1	<i>0.58</i>	<i>0.25</i>	120	–2	–2
17	<i>0.04</i>	<i>0.36</i>	<i>0.26</i>	80	—	—
17	<i>0.08</i>	<i>0.7</i>	0.30	100	–1	–1

**Page 41, Sample Battle Dress Designs table (correction):** Changed values are *italicized*.

SAMPLE BATTLE DRESS DESIGNS														
	<i>AGL</i>	<i>INIT</i>	<i>SM</i>	<i>AV</i>	<i>AM</i>	<i>BV</i>	<i>BM</i>	<i>TM</i>	<i>MW</i>	<i>End</i>	<i>SMCr</i>	<i>AMCr</i>	<i>BMCr</i>	<i>TMCr</i>
Battle Dress-10	–3	–2	<i>0.23</i>	4	<i>.042</i>	<i>.0735</i>	<i>.147</i>	<i>.419</i>	<i>.00588</i>	10	<i>.11</i>	<i>.00378</i>	<i>.0002205</i>	<i>.11475</i>
Lt Btl Drss-12	–2	–1	0.1	6	<i>.054</i>	<i>.0215</i>	<i>.043</i>	<i>.197</i>	<i>.00322</i>	10	<i>.14</i>	<i>.00513</i>	<i>.0001075</i>	<i>.146</i>
Hvy Btl Drss-12	–3	–2	0.2	12	<i>.108</i>	<i>.0392</i>	<i>.0784</i>	<i>.3864</i>	<i>.00588</i>	10	<i>.20</i>	<i>.01026</i>	<i>.000196</i>	<i>.2112</i>
Lt Btl Drss-14	–1	–1	0.05	8	<i>.036</i>	<i>.084</i>	<i>.21</i>	<i>.296</i>	<i>.0042</i>	100	<i>.21</i>	<i>.00666</i>	<i>.00084</i>	<i>.21825</i>
Hvy Btl Drss-14	–2	–2	0.1	16	<i>.072</i>	<i>.1624</i>	<i>.406</i>	<i>.578</i>	<i>.00812</i>	100	<i>.25</i>	<i>.01332</i>	<i>.001624</i>	<i>.2657</i>

**Page 45, Subspace (correction):** The equation for subspace drive speed should read:

$V = ([MW+D] \times Eff) \times 0.1$ , with V: Velocity *in parsecs per hour*, and D: Displacement of *starship* in tons.

**Page 46, Subspace Drive and Combat (correction):** The last sentence should read, “Spacecraft combat speed in range bands (hexes) per turn is equal to their subspace travel velocity (V, *calculated on the previous page*) multiplied by 50 (rounding fractional results to the nearest whole number.”

**Page 48, Navigational Aids, Terrain-Following Avionics table (correction):** After the table, in the Power note, “Wt” should read *Mass*.

**Page 49, Radio Communicators table (correction):** The column labeled “MCr” should be labeled *Price*.

**Page 52, Visible and Infrared Light Sensors table (correction):** In order to fit with the revised spotting procedures presented in the second printing of *Traveller: The New Era* (Mk I, Mod 1, pages 309-310), the range column of the Visible and Infrared Light Sensors has some changes:

Notation "IE" (Image Enhancement) is changed to *II* for *Image Intensification*.

TL-4 Headlight is unchanged, TL-4 Searchlight is 2.0, TL-5 AIR Searchlight is 1.0, TL-6 AIR Scope is 0.03\*, TL-6 PIR Viewer is 0.1, TL-7 AIR Goggles is 0.03\*, TL-7 LA Scope is 0.1, TL-8 PIR Goggles is 0.1, TL-8 LA Scope is 0.1, the TL-8 and -9 IE Viewer/Scopes have their names changed to *II* Viewer/Scopes, but retain their ranges of 0.25, TL-9 Imaging Radar is unchanged, and all three WSV sensors have a short range of 0.4.

The note to the right of the table is changed to read, "Volume in cubic meters, Mass in tons, Range indicates short range in kilometers. Asset is Observation. \*Range is with integral IR light beams. If working with IR searchlight, use *TNE*, page 310."

**Page 62, Access Ports table (clarification):** Add a note beneath the Access Ports table, "For Air locks, see page 77."

**Page 64, Chemical Power Plants (addition):** Add the following to the end of the Chemical Power Plants section:

**Atmospheric Performance:** The figures above are for power plants built to function in a standard atmosphere (code 6 and 7). All of these power plants are "air breathers," i.e., require oxygen to function. These power plants may function without penalty in thin atmospheres (codes 4 and 5), but require intake compressors to function in very thin atmospheres (codes 2 and 3). Intake compressors add 20% to the volume of the power plant (and mass and price are figured on this increased volume). Dense atmospheres (codes 8 and 9) require no modifications.

All power plants include fittings for filters for use in tainted atmospheres at no additional cost. (Certain environments, such as sandy deserts, may also require such filters.) When fitted, these filters cost 0.01 times the cost of the power plant and have negligible mass and volume. While these filters are fitted, multiply maintenance points (pages 21, 26, 34) by 1.2.

Air breathing power plants do not function in vacuum, trace, exotic, corrosive, or insidious atmospheres except by using their own on-board oxygen supply. Any air-breathing vehicle using liquid hydrogen for fuel may modify its fuel tankage to carry half liquid oxygen and half liquid hydrogen. Such a vehicle may then operate in vacuum, trace, exotic, corrosive, or insidious atmospheres, or in tainted atmospheres without filters, as it has no need for external sources of oxygen. However, its rate of fuel consumption is doubled.

This modification costs Cr50 per cubic meter of fuel capacity, and does not prevent the vehicle from using the full tank for liquid hydrogen for normal external oxygen operations.

**Page 64, Fuel Cells (correction):** Delete the "Fuel" note beneath the Fuel Cells table.

**Page 66, Batteries (addition):** Add in the TL-17 to 21 lines to the Batteries table:

TL	Description	MW	Mass	MCr
17	Storage Batteries	4	2.5	0.025
18	Storage Batteries	6	3	0.03
19	Storage Batteries	8	4	0.04
20	Storage Batteries	10	5	0.05
21	Storage Batteries	12	6	0.1

**Page 69, Maneuver Drive Design, first paragraph (clarification):** Under Maneuver Drive design, when dividing thrust (in tons) by mass (in tons) to determine acceleration in Gs, *round fractions down*.

**Page 70, right column, FT note (addition):** Add the following sentence to the end of the FT note:

Note that at TL 7+, any thruster which burns hydrocarbon distillates (HCD) may be designed to burn liquid hydrogen (LHyd) at no cost or energy penalty (the penalty is the vastly greater volume needed by LHyd).

**Page 70, Fuel Type table (clarification):** To avoid flipping back to page 63 and converting, add a *Price* column to the Fuel type table in *Credits per cubic meter*. *HCD is 250, LRF is 1000, SRF is 2000, HRF is 1000, and LHyd is 35*. Add a note beneath the table: *Fuel Price: In credits per cubic meter*.

**Page 70, right column, Airframe (addition):** Add the following rule before the Airframe section:

**Air-Breathing Engines:** Air-breathing engines include turbojets ramjets, turbofans, and AZHRAE when operating in its turbojet and ramjet modes. These are subject to the same limitations in vacuum, thin and tainted atmospheres as air-breathing power plants are, and have compressors, filters, and liquid oxygen added using the same rules. See "Atmospheric Performance" on page 64. An AZHRAE-equipped aircraft can get around these restrictions simply by using its rocket mode at all times. Note that all rocket fuels (LRF, SRF, and HRF) contain their own oxidizers and ignore these air-breathing penalties.

**Page 75, misprinted page (correction):** The missing data from this page was corrected in **FF&S** first printings by the insertion of a replacement page. It was an insert into the *Deluxe Traveller* boxed set.

**Page 76, left column, Afterburn (correction):** Under Afterburn, replace the second sentence with the following: This increases thrust by 50% and increases fuel consumption by 0.2 kiloliters per hour per MW of power devoted to thrust.

**Page 80, Cybernetics (correction):** These changes were made to bring these cybernetic vision devices into line with the revised spotting procedures presented in the second printing of **Traveller: The New Era** (Mk I, Mod 1). See pages 309-310 of this book for further details of this system. The following changes/additions are presented by option type.

*Telescopic:* Add this sentence to the end of the entry: *This provides a +1 to the character's Observation asset.*

*Passive Infrared:* Change short range to 100 meters from "30." Delete sentence referring to smoke, dust, rain, and snow.

*Star Eyes:* Change title to "*Star Eyes (Light Amplifiers)*." Change short range to 100 meters from "120."

*Color Enhancement:* Replace the last two sentences of this entry with the following sentence:

"Color enhancement is *useful only in daylight and clear visibility, and adds +1 to the owner's Observation asset.*"

*High Resolution Thermal (HRT):* Change the entry to read as follows: "*Thermal Viewer:* The thermal viewer, also called HRT (for high-resolution thermal) is an advanced form of passive infrared with a short range of 400 meters. HRT can see clearly through most forms of smoke, but *is affected* by rain or snow." The last sentence remains unchanged.

*Image Enhancement:* Change name to *Image Intensification*, and change entry to read as follows: "Image *intensification* not only magnifies but also sharpens focus and contrast, making visual recognition easier. Image *intensification* also adds the light-amplifying ability of star eyes. Image intensifiers add 2 to the Observation asset of the character, and have a short range of 250 meters." The last sentence remains unchanged.

*Wide-Spectrum Visual (WSV):* Change the sentence about short range to read, "*It adds 2 to the character's Observation asset and has a short range of 400 meters.*"

**Page 89, right column, Stabilization table (clarification):** In the notes under the Stabilization table, the MCr note should read: "Price, in millions of credits, of the stabilization gear *is the mass in tons, of the stabilized weapon times this decimal.*"

**Page 93, left column, Weight formula (correction):** In the weight formula, the term "Awc" should read, Awm.

**Page 93, right column, Special Ammunition (addition):** Add to the Special Ammunition section the following two passages:

**Shotgun:** Shotgun shells are the standard ammunition for shotguns, just as ball is for slug-firing rifles. Shotgun shells contain a quantity of round shot which expands in a pattern to allow greater hit probability. The number of rounds in a shell (which must be a multiple of four), determine the way that the shell's fire is resolved. A four-round shell is resolved as a three dice burst an eight-round shell as a five dice burst, and a 12-round shell as a 10 dice burst (see **TNE** page 272). More rounds than these use combinations of the above, for example, a 16-round shell is resolved as a 10 dice and a three-dice burst fired at the same time, a 24-round burst as two 10-dice bursts, etc.

Like ball, shotgun shells are calculated above and do not have a further price multiplier.

**Flechette:** Flechette rounds are like shotgun shells, except that the multiple rounds are carefully machined, finned darts with superior penetrative and ballistic performance. The number of flechettes in a round and the way that their hits are resolved are identical with the method for shotgun shells, above.

Flechette rounds are not available before tech level 5. Price for Flechette rounds is multiplied by 5.

**Page 94, right column, Penetration (clarification):** Several clarifications were added to clarify the relationships between single-shot, shotgun, and flechette penetration ratings.

Under Actual Muzzle Energy, make these additions to this paragraph:

"If a multiple-bullet round (*i.e., shotgun shells and flechette rounds*) is fired from the weapon, divide the actual muzzle energy of the round by the number of bullets in the round to determine the energy of each bullet. *This is the figure used when calculating damage, penetration and range for the multiple-round bullets.*"

Under the penetration table in the right-hand column, make the following additions to the first two paragraphs:

Shotguns are an exception to this, as their bullets tend to be heavier but slower-moving. All shotgun bullets (both single slugs and multiple-projectile bullets) have a penetration of 3-4-5. (*Note however, that since multiple-projectile shotgun rounds cannot fire beyond medium range, buckshot penetration is effectively 3-NA-NA.*) *This applies only to shotgun slugs or shells. Flechettes (even those fired from shotguns) calculate penetration normally using the per-flechette energy.*

(Note that the very high short-range damage of multiple-bullet shotgun shells *and flechette rounds* is caused by multiple-bullet hits, each with a lower damage value. In most cases the penetration of multiple bullets from a shotgun will be Nil *because the penetration of each individual bullet is Nil*, but see the *discussion of penetration four paragraphs below for possible special cases.*)

Modify the last paragraph of this section (immediately above the Receiver section) as follows:

"For multiple bullet rounds, calculate the penetration of each bullet separately, If this results in a penetration other than Nil, it will be necessary to calculate the damage of each bullet at short range. *Rather than being resolved as one single round at short range, a rolled hit means that 75% of the bullets have hit the target and are each resolved with their individual damage and penetration performance.*

**Page 96, left column, Configuration multiplier table (clarification):** On the configuration multiplier table, change the bottom entry to read, “Smoothbore *single-shot*” with the notation: *\*\*Shotgun single slug rounds, but not multiple-shot rounds.*”

**Page 96, 3. Stocks, final paragraph (addition):** Add the following new section immediately following the end of the Stocks section:

*Final Short Range:* Once short range is computed (after all modifications for sights, mounts, etc.), if it is greater than 20 meters round it to the nearest 10 meters. However, retain the “iron sight” range without rounding—see “Advanced Sights,” page 98.) Short ranges less than 20 meters are retained without rounding.

**Page 97, left column, Box Magazine (addition):** Add the following sentence to the end of the Box Magazine section: “Maximum box magazine capacity is 200 for rounds massing 15g or less, and 100 for heavier rounds.”

**Page 98, left column, Grenade Adapter (addition):** Add the following after the Grenade Adapter section:

**Non-Metallic Weapons:** Weapons may be made from all non-metallic components to make them easier to conceal. Multiply price of *all* components (including ammunition, magazines, sights, recoil reduction equipment, etc.) by 3.

**Page 101, Gauss Weapon sidebar (clarification):** Modify the first sentence of the second paragraph as follows:

“The bullet (*or, more often, a discarding sabot wrapped around a slimmer round*) has two projectile coils...”

**Page 102, left column, Weight (correction):** The formula for calculating the weight of a gauss round is in error. Substitute the following correct formula:  $W_a = .02\pi r^3$

**Page 103, right column, 3. Stocks (correction):** Under Stocks, delete the references to carbine stocks.

**Page 103, right column, Configuration multiplier table (correction):** Bullpup Cm should be 0.9, not “1.1.”

**Page 103, right column, 3. Stocks (addition):** Add the following new section immediately above the beginning of the 4. Feed System section:

*Final Short Range:* Once short range is computed (after all modifications for sights, mounts, etc.), if it is greater than 20 meters, round it to the closest 10 meters. (However, retain the “iron sight” range without rounding—see “Advanced Sights,” page 104.) Short ranges less than 20 meters are retained without rounding.

**Page 104, left column, B. Magazine Type, Box Magazine (addition):** Add the following sentence to the end of the Box Magazine section: “Maximum box magazine capacity is 200 for rounds massing 15 g or less, and 100 for heavier rounds.”

**Page 109, left column, Mortars (correction and addition):** Under Mortars, re-letter the existing C as D and D as E. replace point “B” with the following, and add the following point “C”:

**B. Weight:** Calculate mortar weight by multiplying bore size (in cm) by barrel length (in cm) by 0.02. This is the tube weight in kg. Multiply tube weight by 1.6 to get man-portable carriage weight (baseplate and bipod only) or by 2 to get wheeled, towable carriage weight.

**C. Crew:** Figure crew as if the mortar were a direct fire weapon.

**Pages 120-122, High-Energy Weapons (correction):** Change all instances of “Pp” and “Pulse power” to  $E_p$  and *Pulse energy*, respectively. Also, on page 121, the discussion of carriage weight should refer to *pulse energy*, not “muzzle energy.”

**Page 121, right column, 6. Feed System (addition):** In the box magazine notes, add: “Empty magazines cost Cr10 per kilogram, rounding fractions up.”

**Page 122, right column, K. Recoil (correction):** The recoil formula should be:  $R = \{[(150\sqrt{E}) + Ww] + 4\} \times R_{cm}$

**Page 122, right column, L. Bulk (correction):** Mf should read Unloaded mass, not “Loaded mass.”

**Page 126, 4. Discharge Energy (clarification):** Add the following sentence after the first sentence: (*In the weapons ratings, this is usually referred to as the “pulse.”*)

**Page 127, left column, 5B. Using Gravitic Focusing (clarification):** Add the following to Point 4: “The result is the laser’s focal value F, Multiply F by the proper range factor for the tech level to get the laser’s effective range *in kilometers.*”

**Page 128, right column, 6B. Small Arms (Hand-Held) Lasers (correction):** Replace the sentence, “Round results of 299 meters to 300” with the following: *Final short range should be rounded to the nearest 10 meters if greater than 20. Short ranges less than 20 meters are retained unrounded. (Iron sight ranges are also retained without rounding.)*

**Page 129, right column, 7D. Personnel Damage Dice (correction):** The equation “ $50\sqrt{Mj}$ ” should be changed to  $50\sqrt{I}$ .

**Page 131, 8B. Chemical Laser Cartridge (clarification):** When converting volume of CLC chemicals from one scale to another, *note also that one cubic meter = 1000 liters and 1 liter = 1000 cubic centimeters.*

Units used with the equation to calculate radius of the CLC cartridge based on its volume are volume in cubic centimeters (yielding radius in centimeters) or cubic meters (yielding radius in meters).

**Page 132, left column, CLC Laser Ammunition Feed (clarification):** Modify the second paragraph as follows:

“The maximum CLC cartridge feed rate is five cartridges per five-second turn (*but this may be limited by combustor size*). This is sufficient for full semiautomatic fire. In order to achieve automatic ROF levels, multiple laser pulses are extracted from a single CLC cartridge. Burst size can be 3, 5, 10, or 50, depending upon the amount of energy stored in the cartridge.”

**Page 133, 10B. Mounts, second paragraph (correction):** The first sentence should read, “The weight of a tripod is equal to the fully loaded weight of the laser times 0.5...”

**Page 134, Optic Sights table (addition):** Beneath the Optic Sights table, note that *all DEI-lasers automatically incorporate laser sights.*

**Page 139, E. Burst, 3. HEAP (correction):** The Burst calculation for HEAP warheads should read as follows: “The burst radius of a HEAP warhead is calculated with the formula for HE warheads, but *using the HEAP concussion calculated above.*”

**Page 141, right column, 2. Special Rounds (addition):** On the special rounds table, add an asterisk (\*) to the last entry, “Mortar,” and add mortar to propelled grenades and recoilless rifle rounds in the note.

**Page 141, right column, H. Volume (correction):** Under volume, change the sentence to the following: “The volume of a warhead in cubic meters for purposes of storage is equal to *the mass of the warhead in tons + 5.*”

**Page 141, right column, I. Price (addition):** In the notes beneath the Price table, add mortar rounds to propelled grenades and recoilless rifle rounds as having their propellant cost included in their basic cost.

**Page 142, left column, 1. Hand Grenades (correction):** The example grenades should mass 0.35 (not 0.46) kg, and cost Cr3.5 (not 4.6), and the Burst (B) should be rounded to 15 (not “12”).

**Page 147, right column, 2. Indirect Fire Range (correction):** in the Indirect Fire range formula and the notes beneath, the term “Rc” should be Rs.

**Page 147, right column, 3. Length (addition):** At the end of the Length section, add: “The length of an attached grenade launcher must be less than or equal to the barrel length of the small arm to which it will be attached.”

**Page 148, right column, 10. Price (correction):** Under Price, the Action modifier (Am) values are missing. They are: *Single shot = 250, Pump = 100, Semiautomatic = 200, Automatic = 100.*

**Page 150, Direct Fire Rocket Launchers, E. Range (addition):** The short range of a reloadable rocket launcher is the maximum design range of the rocket fired by the launcher divided by 8, *but may not exceed 200.*

**F. Bulk:** Calculate as for energy weapons (page 122) but treat results greater than 12 as 12.

**Page 151, Recoilless Rifles (addition):** Add the following passage to the end of the Recoilless Rifles section:

**I. Bulk:** Calculate as for energy weapons (page 122) but treat results greater than 12 as 12.

**Page 153, Sample Space Missiles (addition):** Add the following note to those beneath the table:

**Standard missiles have a volume of 7 cubic meters (1/2 displacement ton).**

**Page 155, Design Example, 7mm ETC TL-10 ACR (correction):** Make the following changes in the Stocks section, and, where appropriate, in the final summary section:

All references to a “7x46mm” round should be changed to 7x30mm.

**Range:** Ball: 81, DS: U, HE/HEAP: 61, Tranq: 30.

SR =  $\sqrt{ECmBlm} = 69.303679 \times 1.17 \times 1 = 81.085305 = 81$

DS:  $81 \times 1.2 = 97.2 = 97$

HE/HEAP:  $81 \times 0.75 = 60.75 = 61$

Cm:  $0.9 \times 1.3 = 1.17$

**Page 156, Design Example, 7mm TL-10 ACR (correction):** Make the following changes to the 7mm ACR tables at the top of the page. All references to a “7x46mm” round should be changed to 7x30mm. On the performance table, the Penetration of the 7x30mm Ball should be 2-3-Nil, and the Penetration of the 7x30mm DS should be 1-2-3. In the range column, Ball should be (81) 101, DS should be (87) 117, and HE and HEAP should be (61) 81.

**Page 156, Design Example, TL-13 Plasma Cradle Gun (correction):** Make the following changes to the Plasma Cradle Gun example: Pulse *Energy* instead of “Pulse Power,” Fire Control masses 0.04 tons, not “0.4,” and Fire Control Rating is -4 *Diff Mods*, not “+4.” Damage Value rounds to 40, not “39,” yielding final Penetration Values of 40-20-4, not “39-19-3.” Rate of fire is  $\frac{1}{2}$  (*once every two turns*), not “2.”

**Pages 157-158, Design Example, TL-13 Grav Tank (correction):** Make the following changes to both pages of the TL-13 Grav Tank example:

**Step 1—Chassis:** Top armor is thickened to 0.6, not “0.3.” Side Armor volume is 0.054, not “0.027,” mass is 0.81, not “0.405,” and price is 771.12, not “385.5.” Delete line for contra-grav in this section.

**Step 3—Control Systems:** Add line:

Component	Vol	Mass	Power	Area	Price
TL-13 Holo Linked Controls	0.098	0.0098	0.007	—	14.000

Power for TL-13 Terrain-Follow. Avn. is 0.02, not “—.”

**Step 5—Electronics:** Laser communicator is *30-km*, not “3-km.” Price of 300-km radio is *500*, not “5000,” power for 30-km laser comm is *0.01*, not “0.005,” and line for 30-km passive EMS should read, *0.04, 0.08, 0.004, —, 80,000* and not “0.01, 0.02, 0.001, —, 20,000.”

**Step 6—Weaponry:** The laser and machinegun are not taken from basic game equipment lists, but were designed using **FF&S** sequences. The 7.5mm machinegun has a volume of *0.032* (not “0.017”), mass of *0.016* (not “0.0085”), and price of *4500* (not “1200”).

Coaxial laser rifle is *8cm*, not “3cm,” and has a price of *2855*, not “4000.”

400×PPC rounds have a price of (*120,000*).

3000 rounds *7.5mm* (not “7mm”) have a volume of *0.132* (not “0.09”), mass of *0.016* (not “0.09”), and a price of (*1320*), not “3600.”

**Step 7—Power Plant:** The price of the fusion reactor is *220,000*, not “340,000.” The volume of the reactor fuel is *0.33*, not “0.11,” with a mass of *0.0231*, not “0.0077.”

**Step 9—Cargo:** The volume should be *15.7* and the mass *3.925*.

Totals become: 97.9916 cubic meters, 25.9736 tons empty and 42.1646 loaded, 3.2708 MW, and Cr1,945,419.7 plus 121,320 for ammo.

This section compiles all errata for the “Mk I, Mod 1” second printing (released in January 1994) of **Fire, Fusion, & Steel**. This includes the high-energy weapon upgrade presented as “Putting the Heat Back into Plasma” in *Challenge #76*, and those portions of the *Striker II* design sequence upgrades that function as clarifications, but does not include the design sequence expansions from the *Reformation Coalition Equipment Guide* and *Striker II*.

**Page 12, left column, Hull Form and Configuration table (correction):** The length multiplier (LM) for Open Frame should be 4, not “3.5.” On the notes beneath that same table, the second paragraph of MVM should read, “Perform the same calculation, *then divide by hull material toughness* to get the volume of that hull’s internal structure stressed to 1G.”

**Page 15, Design Evaluation, 4. Place Surface Fixtures (clarification and addition):** Change section “4. Place Surface Fixtures” as follows:

Surface fixtures include all antennae, radiators, external grapples, and hatches. Surface area devoted to slower-than-light maneuver drive (aft), jump drive (aft), *fuel scoops (anywhere)*, and lifters (ventral surfaces) should also be allocated. These systems do not have surface hit locations listed on the ship’s damage table (these have their damage handled by internal damage in the same hit locations), but are allocated in this step to ensure that other systems are not improperly placed where these engineering systems should be. Divide the total hull surface area by 20 to determine the surface area of each hit location and allocate surface fixtures accordingly.

*When allocating antenna surface area, use the full unfolded surface area for folding EMS antennae. If the available surface area is too small for this, allocate surface area for all non- antenna surface area consuming systems, and then allocate all remaining surface area to “Antenna.” However, this remaining area must be at least equal to 10% of the unfolded surface area of the folding antenna, plus the surface area required by the other antennae installed aboard the craft. If this requirement cannot be met, the systems cannot be accommodated aboard the vessel.*

**Page 15, Design Evaluation, 5. Evaluate System Damage, first paragraph (addition):** “Systems can take 1 minor hit per 5 metric tons of mass (*round to the nearest whole number of minor hits*, to a maximum of 4)...”

**Page 17, right column, bottom table (correction):** On the armor volume increase per thickened face table at the bottom of the right column, the entry for Sides (both) should be 30%, not “15%.”

**Page 18, left column, second paragraph (clarification):** In the second paragraph, modify the last two sentences to read, “A moderate slope *multiplies* the effective armor value of a face by 1.5. A radical slope *multiplies* the effective armor value of a face by 2.”

**Page 18, left column, Suspension table (correction):** In the notes beneath the Suspension table, the note headed “KI” should instead be headed *Vol*.

**Pages 18, Step 6 – Weaponry (clarification):** 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’s homopolar generator need not be placed in the turret, nor have its mass accounted for in the weapon stabilization calculations.

**Page 19, left column, first paragraph (clarification):** 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 allowed for a small turret. However, when recalculating the turret’s volume as a main turret (requiring its components to take up between 2 and 6 times their volume, depending on tech level), the turret then falls back below the 10% threshold and becomes classified as a small turret again. In such cases, treat 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.

**Page 19, right column, first paragraph (correction):** In the last sentence of the first paragraph, the reference should be to *Step 9, Crew*, not “Step 8.”

**Page 20, left column, Cargo (correction):** The Cargo section should be labeled *Step 10*, not “Step 11.”

**Page 24, right column, Weaponry (clarification):** 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 allowed for a small turret. However, when recalculating the turret’s volume as a main turret (requiring its components to take up between 2 and 6 times their volume, depending on tech level), the turret then falls back below the 10% threshold and becomes classified as a small turret again. In such cases, treat 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.

**Page 24, right column, Weaponry (clarification):** 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’s homopolar generator need not be placed in the turret, nor have its mass accounted for in the weapon stabilization calculations.

**Page 26, left column, Determine Movement (correction):** Before calculating the G rating of a lift vehicle, first determine its density by dividing its loaded mass by its volume in displacement tons. If the result is less than 15.5, use the procedure as printed (i.e., divide thrust in tons by 10xhull displacement). If the result is 15.5 or greater, determine G rating by dividing the vehicle’s thrust in tons by its loaded mass in tons.

**Page 26, right column, Combat Move (correction):** The “Combat Move” section should be modified to read:

**Combat Move:** The safe NOE combat movement of a grav vehicle (in 10-meter grid squares per combat turn) is equal to the vehicle’s safe NOE speed (in kilometers per hour) multiplied by 0.139”

**Page 32, left column, Rotor Assemblies table (clarification):** The “Wt” note should have the following addition: “Wt: Weight, in tons, per ton of power plant *devoted to lift*.”

**Page 33, Crew/Passengers Positions Additions table (clarification):** Helicopters which are equipped with ejection seats may only be equipped with advanced ejection seats. Each crewmember or passenger carried has a mass of 0.1 tons.

**Page 33, Step 7, Life Support (clarification):** Although aircraft systems are calculated by mass, not volume, certain life support systems have their characteristics based on volume rather than weight alone. When calculating these systems, the volume basis is the total volume of all crew positions and passenger seats. Volume for these components is listed on the tables on pages 47 and 62.

**Page 34, Rating Your Design, Weight (addition):** The total weight of all components should also include crew and passengers (0.1 ton each) in addition to the other components listed.

**Page 35, right column, second paragraph (correction):** Delete the sentence, “Aircraft flying NOE have their agilities doubled.”

**Page 35, Size table (correction):** The range of displacement tonnage for a Small target should read 100-999, not “199-999.”

**Page 49, Maser Communicators table (correction):** The volume of a TL15 30km maser should be .001, not “.002.”

**Page 50, Radar table notes (addition):** Add the following note beneath the tables: Antenna Price (in MCr): Antenna area × 0.05.

**Page 53, Area Jammers table notes (addition):** Add the following note: Antenna Size: Antenna size in square meters is equal to required power in megawatts divided by 50.

**Page 56, Explosive Reactive Armor (correction):** The mass of ERA should be 0.2 tons per cubic meter, not “4.” The price of ERA should be volume times 0.0007, not “0.007.”

**Page 57, Nuclear Damper Design table (correction):** The table is missing Minimum MW and Minimum Volume columns, and appropriate explanatory notes:

NUCLEAR DAMPER DESIGN					
TL	MW	Min MW	Vol	Min Vol	MCr
12	0.0005	1.5	5	7.5	0.13
13	0.0003	0.9	8	7.2	0.3
14	0.0002	0.6	10	6	0.67
15	0.0001	0.3	11	3.3	1.5
16	0.00008	0.24	13	3.12	2
18	0.00006	0.18	16	2.88	4
20	0.00003	0.09	18	1.62	6

**Min MW:** Minimum power requirement for a damper at this tech level, in MW

**Min Vol:** Minimum allowable volume of a damper at this tech level, in cubic meters

**Page 62, left column, first paragraph (addition):** Replace the last sentence, “Docking rings allow no maintenance or repair.” with the following passage:

A docking ring may only accommodate craft of one specific displacement (in tons) and one specific hull form and configuration (e.g., a 10-ton streamlined cylinder or a 30-ton unstreamlined wedge), designated during the design sequence. Airframe configurations may not be accommodated in docking rings. Docking rings allow not maintenance or repair tasks, but do not prevent maintenance hours from being spent.

**Page 63, Chemical Power Plants (addition):** The first two sentences of the Chemical Power Plants section were accidentally deleted. Add them before the first existing sentence:

The first steam power plants burned wood to heat water in an enclosed boiler. As the water boiled, the steam was contained under pressure and used to turn reciprocating pistons that turn a drive shaft.

**Page 67, Explosive Power Generation, Mass (correction):** Change the mass of EPG cartridges to volume ×4 (instead of volume ×8).

**Page 70, Self-Contained Thrusters table (correction):** The FC value for EAPiC should be changed to 0.3 from “0.225.”

**Page 88, Direct Fire Control (clarification):** The last sentence above the Sights and Rangefinders table should be modified to read, “When a weapon equipped with a point-defense computer fires at a ballistic projectile, the projectile’s target movement difficulty modifier (from the table of the same name on TNE page 294) is halved...”

**Page 88, Indirect Fire Control (correction):** Delete the sentence, “Indirect fire sights on mortars have half the weight and cost of those for CPR guns.” In fact, simple indirect fire sights are already automatically included on mortars (see page 109).

**Page 94, right column, Penetration (clarification):** All references to “penetration” should, of course, be to *penetration rating*.

**Page 97, left column, Cassette (clarification):** The last sentence of the “Cassette” section should be modified as follows: “The price of an empty cassette is equal to the price of a single round of *ball* ammunition for the weapon multiplied by 500.”

**Page 103, 2. Receiver, 3. Receiver Price (clarification):** The second sentence should be modified as follows: “If capable of selective *or multi-selective* fire (one *or more* automatic rate), multiply price by 1.2.”

**Page 110, D. Range, 1. Direct Fire Range (correction):** The formula for computing the direct fire range of a mass driver is wrong. Replace the second paragraph of the “1. Direct Fire Range” subsection with the following:

Short direct fire range in meters for a mass drive gun firing a kinetic penetrator round is equal to *five times the sum of its bore size in centimeters plus one-twentieth its muzzle velocity in meters per second plus 20*.  $SR = 5 [B + (V20) + 20]$ .

**Page 121, D. Range (correction):** Change the last two paragraphs to read as follows:

Short direct fire range in meters for a plasma gun is *100 times the square root of its pulse energy in megajoules*.

Short direct fire range in meters for a fusion gun is *150 times the square root of its pulse energy in megajoules*.”

**Page 121, E. Damage Value (correction):** Change the formula to read 30 times the square root of E, rather than “11.5.”

**Page 122, F. Penetration (correction):** Replace the second and third paragraphs (both single sentences) on the page with the following single paragraph: “Plasma and fusion weapons have a penetration rating of 1-2-10.”

**Page 122, Price Multiplier table (correction):** The revised component price multipliers for plasma and fusion guns are shown below.

PRICE MULTIPLIER		
<i>Component</i>	<i>Plasma</i>	<i>Fusion</i>
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

**Page 122, Price Multiplier table notes (correction):** “Empty magazines cost *Cr10* per kilogram, rounding fractions up,” not “Cr1”.

**Page 122, K, Recoil notes (clarification):** Replace the existing *Ww* note with: *Ww*: Weight, in kilograms, of weapon (loaded). *When a recoil compensator is fitted, Ww includes the weight of the backpack. When no recoil compensator is fitted, Ww does not include the backpack.*”

**Page 144, Nuclear-Pumped X-Ray Lasers table (correction):** The volume of a TL 11-12 500-kiloton warhead should be .388, not “.4.”

**Page 145, Homing Guidance table (addition):** Add the following note beneath the Homing guidance table:

**Range:** Maximum short range of the guidance system. This can be reduced if the missile’s propellant limits it to a lower range.

**Page 145, Smart Warheads Sensor table (addition):** Add the following options to the table:

<i>TL</i>	<i>Type</i>	<i>Mass</i>	<i>Cr</i>	<i>Memory Range</i>	<i>Seeker Range</i>
7	Visual	1	200	8	40
7	Infrared	1	2000	4	20
8	Imaging Radar	1	10,000	8	40

**Memory Range:** The maximum short range of a target memory missile equipped with this sensor. This can be reduced if the missile’s propellant limits it to a lower range.

**Seeker Range:** The maximum short range of a target seeker missile equipped with this sensor. This can be reduced if the missile’s propellant limits it to a lower range.

**Page 146, B. Atmospheric Rockets and Missiles, 9. Range (correction):** Change the last sentence to read, “For homing, *target memory*, and *target seeker* missiles, short range is *equal to this maximum range or the listed short range of the guidance system, whichever is lower*.”

**Page 146, C. Space Missiles, 9. Determine Max Gs per Turn (addition):** Add the following sentence at the end of the section, “Round all fractions down for final G rating.”

**Page 146, Armor Value (addition):** For both atmospheric and space rockets and missiles, the armor value of the missile’s airframe skin is dependent upon fuel type and tech level, as shown in the table below:

<i>Fuel Type</i>	<i>TL 5-6</i>	<i>TL 7</i>	<i>TL 8+</i>
Liquid Fuel	0.5	1	2
Solid Fuel	1	2	3

**Page 147, right column, Receiver Length table (addition):** On the Receiver Length table, the LV Semiautomatic is also used for RAM Semiautomatic and the LV Automatic is also used for RAM Automatic.

**Page 149, Tac Missile Launchers (clarification and addition):** Under Tac Missile Launchers, the volume of a tube launcher is equal to 4 times missile volume. The volume of the magazine of a magazine launcher is equal to the volume of the missiles contained in it. Note that tac missiles have a volume in liters equal to their mass in kilograms.

**Page 150, left column, 2. Target Designated (correction):** At the end of the first paragraph, delete the reference to the designator's effective range being equal to its medium (twice short) range. Designator tasks are rolled using the designator's listed short, medium, long, and extreme ranges, as discussed on **TNE** page 278.

Therefore, in the second paragraph, the TL-7 laser designator simply has a short range of 3 kilometers, and no "useful range."

**Page 150, Direct Fire Rocket Launchers, E. Range (addition):** Add the following passage to the end of subsection "E. Range": 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.

**Page 151, Space Missile Launchers, fifth paragraph (addition):** Add the following sentence to the end of the fifth paragraph: "The mass of a mechanical reloader in tons is equal to its volume in cubic meters times 0.5."

**Page 152, Capacity (clarification):** The Capacity of the wingtip launch rail should be understood to be "100kg worth of missiles or rockets."

**Page 153, Sandcasters for Standard Turret Sockets table (correction and addition):** On the Sandcasters table, the Beam Reduction of the TL-8 sandcaster should be 1D6x5, not "1D6x6." Beneath the table, add the note that all listed sandcasters mass 50 tons and draw 1 MW of power.

**Page 153, Nuclear Dampers for Standard Turret and Barbette Sockets table (correction):** The masses and prices on the table should be changed as follows:

<b>NUCLEAR DAMPERS FOR STANDARD TURRET AND BARBETTE SOCKETS</b>				
<i>TL</i>	<i>Description</i>	<i>Mass</i>	<i>Price</i>	<i>Power</i>
12	Damper Barbette	76.2	2.05	15
13	Damper Barbette	73.2	2.8	9
14	Damper Barbette	60.8	4.06	6
15	Damper Turret	33.5	4.53	3

**Page 153, Sample Space Missiles for Socket Missile Launchers (correction and addition):** On the table, delete the line for the TL-8 missile; there is no such weapon. The G-Turns for the TL-12 semi-independent missile should be 9/9, not "8/8," and for the TL-14 semi-independent missile should be 7/7, not "8/8." All missiles on the table have an armor value of 3. The semi-independent missiles have an endurance of 10 hours; after this time they behave as normal controlled missiles.

**Page 155, Design Example, 7mm ETC TL-10 ACR (correction):** Make the following changes in the Stocks section, and, where appropriate, in the final summary section:

All references to a "7x46mm" round should be changed to 7x30mm.

**Page 156, Design Example, TL-13 Plasma Cradle Gun (correction):** Because of the high energy weapons upgrade, make the following changes to the Plasma Cradle Gun example:

Under Specifications:

Cartridge Mass:  $(.0036 \times 4 =) .0144 \text{ tons (14.4 kg)}$

Under Weapon Design, Mass:

Autoloader:  $(30 \times 14.4 =) 432 \text{ kg}$

TOTAL: 832 kg

Under Weapon Design, Range:

Short Range:  $(3.46 \times 100 =) 346 \text{ round to } 350$

Medium Range:  $(350 \times 2 =) 700$

Long Range:  $(350 \times 4 =) 1400$

Extreme Range:  $(350 \times 8 =) 2800$

Under Weapon Design, Damage Value:

Damage:  $(30 \times 3.46 =) 103.92 (104)$

Under Weapon Design, Penetration:

Value: 104-104-52-10

Under Weapon Design, Price:

Firing Unit: (48×600=) Cr28,800  
 Support Hardware: (72×600=) Cr43,200  
 Autoloader: (432×10=) Cr4320  
 TOTAL: Cr200,320

Under Weapon Design, Volume:  
 Autoloader: (.432×1=) .432  
 TOTAL: .772 cubic meters

**Page 157-158, Design Example, TL-13 Grav Tank (correction):** These changes are also necessary because of the high energy weapon upgrade. Under “Step 6 – Weaponry,” the 12-Mj Plasma Cradle Gun has a volume of 1.544, not “2.42,” a mass of 0.832, not “1.27,” and a price of 200,320, not “432,000,” and 400×PPC have a mass of 5.76, not “11.52.”

Under “Step 9 – Cargo,” volume should be 16.576, not “15.7,” and mass should be 4.144, not “3.925.”

On the Design Recapitulation table (page 158), the changes noted above for page 157 must be made, resulting in the following changes to the total:

Mass is 25.5356 tons unloaded, not “25.9736,” and 36.6236 tons loaded, not “42.2646,” and Price is 1,713,739.7, not “1,945,419.7.”

In addition to the various errata for Fire, Fusion, & Steel, numerous expansions appear for the design sequences in other products:

- 0310 **Reformation Coalition Equipment Guide:** Expansions to several parts of **FF&S**.
- 0311 **World Tamer’s Handbook:** Black powder firearm design expansion for **FF&S**.
- 0312 **Vampire Fleets:** Robots expansion for **FF&S**.

**SMASH & GRAB** (0305, Reformation Coalition Manual 2, 1994)

**Overall, DLS Helios (correction):** It is clearly explained in *Path of Tears* that the *DLS Helios* is part of the Vampire fleet at Mitchell; all references in *Smash & Grab* to the *DLS Helios* should actually be to the *DLS Brilliant*.

**Page 111, TL-15 Fusion Rifle (Droyne) (correction):** The TL15 Droyne Fusion Rifle has a loaded weapon mass of 12.74, not “14.18,” a weapon price of 9500 (Cr5000 firing unit, Cr4500 backpack with inertial compensator), not “50,750,” cartridges which weigh 0.6kg each, not “1.2kg,” magazines which weigh 5.04kg empty, not “6.48,” and 11.04kg loaded with 10 rounds, not “12.48kg with 5 rounds,” cost Cr51 empty, not “Cr65,” cost Cr111 fully loaded with 10 rounds, not “Cr95 fully loaded with 5 rounds,” a damage value of 26, not “10,” penetration ratings of 1-2-10, not “1/2-1-4,” penetration values of 26-26-13-3, not “20-20-10-3,” magazine of 10, not “5,” and a short range of 130, not “40.” If used without its recoil compensator, its recoil would be 14, not “13.”

Weapon	TL	Pulse	Ammo	Weight			Price			
				Empty	Ldd	BP	Mag	Wpn	Ammo	
4cm Fusion Rifle/comp (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
4cm Fusion-15c (Droyne)	SA1	26	1-5	1-2-10	26-26-13-3	2	10	5	130

## PLAYERS' FORMS (0306, 1993)

No errata identified.

## REFEREE'S SCREEN (0307, 1994)

No errata identified.

## BATTLE RIDER (0308, 1994)

The following errata has been confirmed for *Battle Rider*.

**Counter Values (correction):** Several counters have incorrect number of weapons listed on their reverse side.

*LT Maggart-1:* The correct total for lasers is 4 (not 8). The correct total for sandcasters is 2 (not 4).

*LC Maggart-2:* The correct total for lasers is 5 (not 10). The correct total for sandcasters is 3 (not 6).

*LM Aurora-1:* The correct total for lasers is 4 (not 10). The correct total for sandcasters is 2 (not 4).

*LC Aurora-2:* The correct total for lasers is 5 (not 10). The correct total for sandcasters is 3 (not 6).

Note that in all cases except the LM Aurora-1, the value listed is the total number of lasers and casters on the vessel and the number which can fire into any one hexside (because of the socket extenders used on these vessels).

## PATH OF TEARS (0309, Reformation Coalition Manual 1, 1994)

**Pages 76 and 77, Nova Ryll (correction):** The map (with 80% water coverage) does not match the world hydrographics (code "2"). Change the world WWP to X57877C-8.

## REFORMATION COALITION EQUIPMENT GUIDE (0310, Reformation Coalition Manual 3, 1994)

The following errata has been confirmed for the *Reformation Coalition Equipment Guide*.

**Page 43, 7.5x50mmE-9 (correction):** Average muzzle energy should be 9189 joules (Tranq: 5513 joules).

**Page 52, 5.5mm Assault Rifle (correction):** Weapon price should be Cr1726.

**Page 74 and 75, 5.5mm Gauss Ammunition (correction):** Price of a HEAP round should be Cr0.09.

**Page 85, TL-10 9cm Plasma Bazooka (correction):** The Plasma Bazooka requires the following changes: The weapon has a caliber of 10cm, not "9cm," a discharge energy of 2.88 Mj, not "2," empty weight of 34.6kg, not "27," loaded weight of 45kg, not "43.2," a weapon price of 20,736, not "67,500," cartridge specifications of 10x33, not "9x32," actual dimensions of 100x330, not "90x318," energy of 2.88 Mj, not "2.25 Mj," cartridge weight of 10.4 kg, not "16.2," cartridge price of 520, not "400," damage value Of 51, not "16," concussion-burst of 3-5, penetration values of 51-51-26-5 not "17-17-9-2," and short range of 170, not "70."

**Page 86, Non-Compensated High-Energy Weapons (correction):** The TL12 4.3cm plasma rifle has a loaded mass of 15.65, not "17.4," a weapon price of Cr4320, not "18,000," with a Cr1440 (not "Cr6000") firing unit and Cr2880 (not "Cr12,000") backpack, cartridge weight of 0.72kg, not "1 .44kg," magazine empty weight of 6.05kg, not "7.8," loaded weight of 13.25kg with 10 rounds, not "15kg with 5 rounds," magazine price of Cr61 empty, not "78," and Cr211 fully loaded with 10 rounds, not "Cr153 fully loaded with 5," magazine of 10, not "5," damage value of 23, not "9," no concussion-burst values, penetration values of 23-23-12-2, not "9-9-5-1," and range of 80, not "20."

The 4.7cm plasma rifle has a loaded mass of 36.2, not "35.53," magazine of 20, not "10," weapon price of 4800, not "20,000," ammo price of 539, not "361," damage value of 27, not "10," penetration values of 27-27-14-3, not "10-10-5-1," concussion-burst of 1-5, and short range of 90, not "20."

The 4.7cm fusion rifle has a loaded mass of 37.8, not "40.1," magazine of 20, not "1 0," weapon price of 9600, not "72,000," ammo price of 331 not "257," damage value of 33, not "13," penetration ratings of 1-2-10, not "1/2-1 -4," penetration values of 33-33-17-3, not "26-26-13-3," concussion-burst of 1-5, and short range of 160, not "60."

**Page 87, Recoil-Compensated High-Energy Weapons (correction):** The TL14 4.7cm compensated fusion rifle has a loaded weight of 19.4kg, not "21.7," weapon price of 24,000, not "156,000," with a Cr9600 (not "Cr72,000") firing unit and Cr14,400 (not "Cr84,000") backpack, cartridge weight of 0.96kg, not "1 .92," empty magazine weight of 6.912kg, not "9.22," loaded magazine weight of 14.6kg with 10 rounds, not "16.9 kg with 5," empty magazine price of Cr70, not "93," magazine price Cr146.8 fully loaded with 10 rounds, not "131.4 fully loaded with 5," magazine capacity of 8, not "4," damage value of 33, not "13," penetration ratings of 1-2-10, not "1/2-1-4," penetration values of 33-33-17-3, not "26-26-13-3," concussion-burst of 1-5, single-shot recoil of 5, not "3," and short range of 160, not "60."

The 4.1cm compensated plasma rifle has a loaded weight of 12.9, not "14.5," magazine of 8, not "4," weapon price of 10,880, not "40,000," ammo price of 98, not "87," damage value of 27, not "10," penetration value of 27-27-14-3, not

“10-10-5-1,” and short range of 90, not “20.”

The 5.1cm compensated fusion rifle has a loaded weight of 21.2, not “24,” magazine of 8, not “4,” weapon price of Cr15,000, not “97,500,” ammo price of 183, not “163,” damage value of 37, not 14, penetration ratings of 1-2-10, not “ $\frac{1}{2}$ -1-4,” penetration values of 37-37-19-4, not “28-28-14-4,” concussion-burst of 1-5, and short range of 180, not “80.”

**Page 102, Smoothbore Flintlock Musket (correction):** Single-shot recoil should be 2.

**Page 102, Rifled Musket (correction):** Single-shot recoil should be 3.

**Page 103, Bows (correction):** Column labeled “ROF” for all three bows should read “Reload”.

**Page 106, Nail Antiaircraft Missiles (correction):** Nail SAM (IR) and Nail ARM should each have a short (for task difficulty determination) and maximum range of 6000 meters (6 km).

**Page 108, Homing Missiles (correction):** TL-7 IR Homing missile should have a short range and maximum range of 10,735 meters, TL-9 IR Homing missile should have a short and maximum range of 10,560 meters, TL-11 IR Homing missile should have a short and maximum range of 15,835 meters, and the TL-13 IR Homing missile should have a short and maximum range of 8900 meters.

**Page 112-113, TL-14 Intrepid Grav Tank (correction):** In the third paragraph of description, the tank’s price is 15.8 mission credits, not “81,” and of this, 11.5 mission credits, not “79,” is attributable to the fusion gun. Note that the specific model of Intrepid grav tank listed here is referred to as the “Trepida IIB/Intrepid/125-2” in **Striker II**.

In the technical data, the price is 15.8, not “81.34,” mass is 216.45 tons empty, not “213.59,” and 238.09 tons loaded, not “255.61.” Power plant is 6.63 MW, not “5.37,” HEPlaR thrust is 86.62 tons, not “58.65,” and excess power is 0.0298 MW, not “0.0123.” Cargo is 95 kg in 0.381 m<sup>3</sup>, not “324kg” in “1.295 m<sup>3</sup>.” Ammunition dimensions are 22×66cm, not “12×37.” Speed is 673 kph maximum, not “717,” 505 kph cruising, not “538,” and 168 kph safe NOE. Delete reference to vacuum speed. Travel move is 2020/1010, not “2152/1080,” delete reference to vacuum move. Combat move is 94 grid squares high, not “100,” and 23 safe NOE, not “25.” Delete reference to vacuum move. Add note that Maximum Acceleration is 0.364 Gs. Diff Mods vs. Fire are +5 at max speed, not “+6,” +4 at cruising, not “+5,” +2 at safe NOE, +3 at 2xsafe NOE, and +4 at 3xsafe NOE.

Fuel capacity is 16,890.9 liters reaction mass plus 55.25 liters, not “2052.75 liters plus 44.75.” Fuel consumption is 1082.75 liters per hour, not “733.125,” giving an endurance of 15.6 hours, not “28.”

The 125-Mj RF Fusion Gun has an ROF of SA4, not “SA2,” damage value of 335, not “129,” penetration ratings of 1-1-2-10, not “ $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1,” penetration values of 335-335-168-34, not “258-258-258-129.” Concussion-burst is 112-35, not “17-15,” and short range is 1680 meters, not 3000 meters\*. Delete asterisked note beneath table.

**Page 115, Reformation Coalition TL-12 Convertible “Ragtop” Air Raft, Add-On Options (correction):** On the add-on options table, the mass of 37 rounds of plasma bazooka is 0.3 tons, not “0.6.”

**Page 116-117, Reformation Coalition TL-12 Attack Speeders (correction):** Price of Mongoose is 6.23, not “6.35,” price of Ferret is 6.26, not “6.62.” Mongoose masses 69.03 tons empty and 75.53 tons loaded, not “69.2” and “77.4.” Ferret masses 67.83 tons empty and 75.69 tons loaded, not “68.33” and “81.2.” Delete reference to vacuum speed, and add notation that maximum acceleration is 3Gs. Mongoose fuel capacity is 6959.75 liters, not “6788.75,” and Ferret fuel capacity is 7386.8 liters, not “6909.8.” Mongoose endurance is 43.84 hours in atmosphere and 3.71 in vacuum, not “42.76” and “3.62.” Ferret endurance is 46.53 hours in atmosphere and 3.94 hours in vacuum, not “43.53” and “3.68.”

The 4.75-Mj plasma cradle gun has damage value of 65, not “25,” penetration values of 65-65-33-7, not “25-25-13-3,” concussion-burst of 4-5, not “1-5,” and short range of 220 meters, not “140”

14-Mj plasma cradle gun has a damage value of 112, not “43,” penetration values of 112-112-56-11, not “43-43-22-4,” concussion-burst of 13-15, not “2-5,” and short range of 370 meters, not “420.”

**Page 126, Pyrrhus TL-13 Support Sled (correction):** The Pyrrhus support sled has a price of 1,713,740, not 1,945,420, an empty mass of 25.5, not “26,” and a loaded mass of 36.6, not “42.2.” Its 12-Mj plasma cradle gun has a short range of 350, not “360,” damage value of 104, not “40,” penetration values of 104-104-52-10, not “40-40-20-4,” and concussion-burst of 11-15, not “2-5.”

**Page 127, “Buster” TL-8 Weapons Carrier (correction):** Under ammo, the Buster weapons carrier can carry 150 rounds of plasma bazooka, not “75.”

**Page 131, Aurora-Class Clipper (correction):** Empty mass should be 13,584.42 tons.

**Page 133, 100-ton Cargo Module (correction):** LS damage should be 2H.

**Page 134, 100-ton Armed Quarters Module Mk Ic (correction):** LS damage should be 2H.

**Page 135, 200-ton Quarters Module Mk IIa (correction):** LS damage should be 2H.

**Page 137, Stretch Clipper Loadouts (correction):** In all three loadouts, mass of *Maggart*-class clipper should be 18,528.9646, and mass of 2xmodular cutters should be 1454.9 tons. Total mass of Uplift/Survey configuration should be 29,144.5706, of Escort configuration should be 35,094.3206, and of Moonshadow configuration should be 33,554.6606 tons.

**Page 138, Victrix-class Multimission Sloop (correction):** The 76-Mj RF Plasma Gun has a short range of 870,

not “2280,” damage value of 262, not “100,” penetration values of 262-262-131-26, not “100-100-50-10,” and concussion-burst of 69-25, not “10-15.”

**Page 156, Rapid-Fire High-Energy Weapons (correction):** Under Rapid-Fire High-Energy Weapons, price for the firing unit of plasma weapons is 600, not “2500,” and for fusion weapons is 1000, not “7500,” Price for the supporting hardware of plasma weapons is 600, not “2500,” and for fusion weapons is 1000, not “7500.”

The volume of a magazine in cubic meters is equal to the mass in tons of a full load of ammunition divided by 2, not “4.”

Under Concussion and Burst, the reference to weapons of “4.7 Mj and greater” should now read “0.7 Mj and greater.”

Weapon	TL	Pulse	Ammo	Weight		BP	Price		
				Empty	Ldd		Mag	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/comp	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

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	SA	133	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
125-Mj Fusion Gun (Intrepid)	SA	2335	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)	½	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

**WORLD TAMERS HANDBOOK (0311, 1994)**

No errata identified.

**VAMPIRE FLEETS (0312, 1995)**

No errata identified.

## STRIKER II (0313, 1994)

This errata combines formal errata for the rules as written with changes incorporated from more recent editions of *Command Decision*. Thanks to Frank Chadwick for permission to use ideas and clarifications from *Command Decision: Test of Battle*.

**Page 4, 1.1 Scale (clarification):** Delete references to centimeters and simply have "one inch equals 50 meters" (as per *CD:ToB*).

Add to the second paragraph, "Measurements, when made for actual movement or fire, are made from and to the closest point on a stand. Line of sight and line of fire may be measured from any point to any point."

**Page 5, 2.3 Personnel Stands (correction and clarification):** Listed stand dimensions are only suggestions. As long as opposing forces are mounted on similar sized stands, the precise dimensions are not crucial. You can even use round bases, as most personnel have a 360-degree arc of fire. Delete all references to HIW stands.

**Page 7, 3.32 Range (clarification):** The range recorded on the card in the first column is the equipment's short range in inches. (Since each inch in the game represents 50 actual meters, take the range in meters of Traveller equipment and divide by 50 to find the Striker range in inches.)

**Page 7, 3.33 Rate of Fire, right column, second paragraph (addition):** Add to third paragraph, "Indirect Fire weapons have a ROF of 2 if up to 100mm caliber, and ROF of 1 if larger."

**Page 8, 4.11 Self-Commanders (omission):** Add, "Self-commanders may only place movement orders."

**Page 8, 4.12 Tactical Commanders (correction):** Change "15 cm" to "6 inches".

**Page 8, 4.13 Operational Commanders (correction):** Change "15 cm" to "6 inches".

**Page 8, 4.14 Strategic Commanders (correction):** Change "15 cm" to "6 inches".

**Page 8, 4.22 Rapid Advance (correction):** Change to "...must move half their full movement allowance..."

**Page 8, 4.23 Disengage (correction):** Change to "...and may move up to its full movement allowance but may stop when it enters cover and is out of line of sight."

**Page 8, 4.24 No Order (correction):** Change "They may fire normally" to "This allows it to fire in the Opportunity Fire Phase."

**Page 9, 4.32 Placing Orders (correction):** Change all references to 15cm to "6 inches from the centre of the chit".

Add to the first paragraph, "A Rally order must be placed beside the issuing stand."

Change the third paragraph "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" to "If a stand subordinate to a command stand within 15cm/6" of the order chit is not intended to follow the order, this fact must be indicated by placing a "No Order" marker under the stand when the order is placed. Add, "Pinned stands may not issue orders."

**Page 9, 4.421 Take Command Orders (clarification):** Take Command orders may not be issued to demoralized stands.

**Page 9-10, 4.423 Visibility and Command Stands (correction):** Change all references to 15cm to "6 inches". Change all references to 5cm to "2 inches".

**Page 11, Rule 5: Movement (addition and correction):** Add "Roll for initiative, winner determines who acts as Side A, re-roll ties. (Advanced rule: Novice rolls D6, Experienced rolls D8, Veteran rolls D10, Elite rolls D12) Side A reveals orders and completes all movement activity. Then Side B reveals orders and completes all movement. Spotting is then resolved."

Change personnel movement allowance of 20 centimeters to "4 inches".

Add, "Cavalry and ski-mounted personnel stands have a movement allowance of 8 inches."

**Page 11, 5.14 Disengage (addition):** After "directly away from the nearest visible enemy stand", add "...at the time the disengage order is placed..."

**Page 12, 5.4 Movement and Enemy Units (addition and correction):** After "no personnel stand" in the first paragraph, add "...or soft vehicle..."

Change "ground vehicle" in the second paragraph to "ground Armored Fighting Vehicle" and add, "If the enemy ground AFV was visible before it was contacted, the moving AFV may move around it, as it would a terrain obstacle (See 5.3)."

Add, "Once a personnel stand is in contact with an enemy stand, it may not break contact until one side either is forced back or eliminated by fire, or one side fails morale. An armored fighting vehicle may move even if it begins its movement in contact with an enemy stand."

**Page 12, 5.5 Terrain Effects and Movement (correction):** Change cm to "inches".

**Page 12, 5.52 Effects of Terrain on Tracked Vehicle Stands (correction):** Change 5cm to "1 inch".

**Page 12, 5.53 Effects of Terrain on Wheeled Vehicle Stands (clarification and correction):** Wheeled vehicles pay quadruple (not double) to move through settlements. Change 10cm to "2 inch".

**Page 12, 5.54 Effects of Terrain on Air Cushion Vehicle Stands (correction):** Change 20cm to "4 inches".

**Page 13, 5.56 Effects of Terrain on Flying Vehicle Stands (addition):** Flying vehicles at low-level may not enter woods or jungle, and pay quadruple movement costs in a settlement."

**Page 13, 5.62 Man-handling Towed Weapons (correction):** Change to "Unlimbered Class I towed weapons have a base movement allowance of three inches. Unlimbered Class II towed weapons have a base movement allowance of two inches."

**Page 13, 5.63 Artillery Templates (addition):** Any stand that wishes to move into an IDF Template (see Rule 8: Indirect Fire) must spend its base move allowance to do so. Thus if an infantry stand has a base move of 4", and it rapid advances, it costs 4 inches to enter the template, and then it may move up to the remaining 4 inches allowed. Since it costs a base move to enter a template, a stand on a cautious advance order may never enter one. If a stand begins its movement already under the template, it does not pay any movement penalty when moving through that template. A Forced Back stand is not required to enter an artillery template and halts its retreat.

**Page 13, 5.7 Movement to Contact (correction):** Delete the first paragraph of 5.7 and start the section with 5.71 Closing to Contact.

**Page 13, 5.8 Facing (addition):** Add, "A facing change does not count as movement for the purposes of spotting."

**Page 13, 5.81 Front and Flank and 5.83 Firing on the Flank (addition):** Add reference to Rear and using the Rear armor rating if firer in the rear 120 degree arc of a vehicle as shown in the illustration.

**Page 14, 6.2 Visibility (clarification and correction):** "The normal maximum visibility range is 60 inches. Increase by 10 inches for each elevation level difference between the spotting stand and the target." Change 650cm in example to "90 inches".

**Page 14, 6.3 Line of Sight (LOS) (correction and addition):** Delete reference to friendly stands blocking line of sight. Add "Line of fire is identical to LOS with one exception: friendly units (but not enemy units) are obstacles to line of fire. A stand can see through a friendly stand but may not shoot through it, unless both firer and target are on a higher elevation."

**Page 14, 6.31 Cover (addition):** Add "entrenchments and all man-made fortifications, except for barbed wire" to items that provide visual cover for occupying stands.

Add a final paragraph, "Stands on the very edge (i.e. touching) of Cover may see out and be seen. Stands deep inside area cover (such as woods or settlements) may not be seen from the outside or see out but may trace a line of sight to other stands in the same cover which are within 2 inches."

Delete existing rules 6.32, 6.33, 6.34, 6.35 and 6.36. Add a new section 6.32, which reads as follows:

**6.32 Elevation:** When a line of sight is traced between stands at different elevation levels, the line of sight may pass over any obstacles between the stands, leaving the actual line of sight unblocked. If the height of the obstacle is lower than or equals the height of both stands, the line of sight is unblocked. If the obstacle is higher than one of the stands, then the minimum requirement for passage of line of sight over an obstacle is the stand on the higher elevation must be at least one level higher than the obstacle, and the obstacle is closer to the higher stand than to the lower stand. If the higher stand is at least three levels higher than the obstacle, the obstacle can be at any point along the line of sight, as long as it is not within two inches of the lower stand. Obstacles have the following heights:

Bush, friendly stands, eliminated vehicles: 1 level

Settlements, woods, hill (each contour): 2 levels

Smoke screen: 3 levels

**Page 16, Spotting Difficulty Modifiers table (addition):** Note that, even if an unspotted stand fired during a previous turn, but it did not fire during the current turn, it is not considered to have fired for the purposes of spotting modifiers.

**Page 16, 6.44 Handing Off Targets (correction and clarification):** Replace the existing rule with, "Once an enemy stand is spotted by any friendly stands, it may be fired on/seen by ALL friendly stands that have an LOS to it."

**Page 16, 6.45 Autospot (correction):** Change 5cm to read "1 inch". Change the last sentence to read, "Any stand that moves or fires in the open is automatically spotted by all units within LOS and maximum visibility distance."

**Page 17, 7.22 Order of Fires (correction):** Change to "Within a sub-phase (except the Opportunity Fire Sub-Phase when stationary stands ALWAYS fire first), units fire in the order of their initiative number, with the highest initiative units firing first."

Add, "Firers with a rate of fire that allows them to engage more than one target in a sub-phase, must declare their targets before any die rolling. All fire by a unit must be conducted in the same sub-phase (except point defense fire)."

**Page 17, 7.23 Opportunity Fire Sub-Phase (correction):** Change the first sentence to read, "Stands conducting direct fire during the Opportunity Fire sub-phase may fire at any moving or non-moving target. Fire may take place at any point during movement. A firing stand may fire at a target at any point along the target's movement, and it may also fire at any point during friendly movement."

Add, "No opportunity fire may be directed at a stand conducting a disengage move unless the stand's movement brings it closer to the firer".

Change last sentence to read, "Any stand moving in cover under a cautious advance order receives the benefit of

concealment. All other stands moving in cover do not receive the benefit of cover in opportunity fire."

**Page 17, 7.24 General Fire Sub-Phase (addition):** Add, "All stands which were eligible to fire in opportunity fire, but did not do so, may also fire. General Fire may be directed at disengaging stands provided such are within range and LOS at the end of their movement."

**Page 18, 7.32 Firing at Multiple Targets (addition):** Add, "The above restrictions do not apply to small arms fire, which is directed at a group of target stands instead of a single stand (see 7.43)."

**Page 18, 7.43 Small Arms Hit Distribution (correction and clarification):** Change to "Hits from small arms fire (SA) are not placed on the target stand. SA hits are distributed evenly among spotted target stands within a 4-inch diameter target area centered on the nominated stand, starting with the stands closest to the firing units and then spreading to stands farther away. If a player fired applying a cover modifier the stands in cover closest to the firing stands are hit first, with all hits going on stands in cover until each has received one hit, then going on stands in the open closest to the firing stands. No stand will receive a second hit until all affected stands in the target area have been hit at least once by the fire from a stand or group of stands firing using the same target modifiers. Remaining hits are then distributed in the same order as described above. No stand will receive a hit, even if it is within the 4-inch target circle, unless it is in the range band used and the Line of Fire of at least one firing unit. Only enemy stands within the 4-inch target circle suffer hits; friendly stands do not."

**Page 19, 7.521 Saving Throws (correction):** Change last sentence to "However, a die roll of 6 always fails, and the hit is suffered."

**Page 19, 7.5242 Plus Penetration Weapons (clarification):** Reword as "No saving throw is permitted, regardless of protection, for the first hit on a personnel stand inflicted by a plus penetration weapon. A saving throw is allowed for a second or subsequent hit inflicted by that weapon."

**Page 20, 7.711 Forced Back (addition and clarification):** Add to the first sentence "...and ends movement facing in the direction it moved."

**Page 20, 7.72 Personnel Stands and 7.73 Vehicle Stands (addition and clarification):** Optionally for each hit roll a D10 and consult the following hit results chart:

HIT EFFECTS ON STANDS				
Target Stand Troop Quality	No Effect	Forced Back	Eliminated	*
Novice	1	2-5	6+	10
Experience	1-3	4-6	7+	10
Veteran	1-5	6-7	8+	10
Elite	1-6	7-8	9+	10

\*An unmodified roll of 10 is always elimination at Short range or at least Forced Back at other ranges.

Modifiers to the die roll are +penetration and -target armor.

**Page 21, 7.81 Range and Line of Sight (correction):** Change all references to "line of sight" to "line of fire".

**Page 21, 7.87 Turret Weapons (addition):** Add, "A flying vehicle with a main turret may not traverse it if operating under a travel order and may only use approach fire" (see *Fire, Fusion & Steel* page 23).

**Page 21, 7.91 Range and Accuracy (correction):** Change "close" range to "short" range.

**Page 22, Rule 8: Indirect Fire (addition and clarification):** Add "The Indirect Fire Rule is used for the plotting, spotters, and accuracy of indirect fire shots; the effect of exploding indirect fire (burst area, fire values, hit effects) is given in the exploding rounds rule (7.6)."

Delete "Meson gun fire is also treated as indirect precision fire". Meson gun rules are given at 13.6.

**Page 22, 8.21 Observation (addition):** Add, "The target point must be placed within one inch of either a friendly stand or a visible and spotted enemy stand."

**Page 22, 8.211 Dedicated Forward Observers (addition):** Add, "Self-observed indirect fire by on-table weapons is also counted as using a dedicated forward observer."

**Page 23, 8.231 Continued Missions (clarification and addition):** A Forced Back morale result for the observer will also prevent continued indirect fire. A continued mission may change ammunition delivered without having to re-roll accuracy.

**Page 23, 8.232 Shifting Fire (correction):** Change 10cm to "2 inches".

**Page 24, 8.41 Smoke Templates (correction and addition):** Change cm to "inches". Add, "see 15.4 Smoke".

**Page 25, Rule 9: Morale (correction and clarification):** Change to "...all stands which were fired at during the course of the turn (unless only by smoke or General Support artillery) or have seen a friendly stand eliminated, must check morale."

**Page 25, 9.2 How Morale is Checked (correction):** Change 15cm to "6 inches".

**Page 25, Morale Modifiers Table (correction):** Change 25cm to "12 inches and LOS".

**Page 25, 9.21 Pinned (clarification, correction and addition):** Change to "Pinned stands may never move towards visible enemy, and may only fire in the Final Fire sub-phase. All attacks against pinned stands are conducted with a +1 difficulty modifier. This modifier is applied after all other difficulty modifiers are applied. Pinned stands check

morale with a -2 modifier." Add, "Pinned stands may not issue orders."

**Page 25, 9.22 Forced Back (addition):** Add, "Because a forced back stand is also pinned, it will check morale with a total -3 modifier until recovered from the pin."

**Page 26, 9.3 Rally Orders (addition):** Add to the last sentence "...and permanent morale loss."

**Page 28, 11.21 Broken (addition):** Add "Personnel in broken count as in concealment for direct fire resolution (+1 difficulty modifier)."

**Page 28, 11.23 Contour Lines (addition):** Add, "A turreted vehicle stand on a hill is hull down to direct fire only through its front facing. It is hull down (through its front facing) against stands at elevations lower than it; it is hull down against stands at the same elevation level if on a different hill. It is not hull down against any stands at a higher elevation or stands at the same elevation on the same hill."

**Page 29, 11.56 High Embankments (correction):** Change 5cm to "1 inch".

**Page 29, 11.6 Fortifications (addition):** Add "Weapons pits, bunkers, pillboxes and other man-made obstacles are treated as concealed vehicles for spotting if they are in concealing terrain or camouflaged. If not in concealing terrain or camouflaged, they are automatically visible at maximum visibility and LOS and no spotting roll is needed."

**Page 30, 11.61 Bunkers, Pillboxes and Entrenchments (clarification and correction):** Delete reference to each "inch" of entrenchment and simply state "each entrenchment may hold a personnel stand."

**Page 30, 11.65 Barbed Wire (addition):** Add, "Cavalry must dismount (see 12.13) before crossing barbed wire."

**Page 31, 12.11 Transport Vehicles, Example (correction):** Change 40cm to "8 inches". Change 10cm to "2 inches". Change 20cm to "4 inches". Change 30cm to "6 inches".

**Page 31, 12.12 AFV Passengers (clarification):** Troops may not ride on a vehicle that has reactive or electrostatic armor.

**Page 31, 12.13 Dismounted Troops (addition):** Add, "No mounted stand may dismount, or dismounted stand mount, while in base contact with the enemy."

**Page 32, 13.421 Homing Missiles and 13.422 Overhead Attack Missiles (clarification):** Top attack warheads use ½ (round down) side armor value if no deck armor value is specified.

**Page 33, 13.43 Drone Missiles (correction):** Change 20cm to "4 inches". Change 60cm to "12 inches".

**Page 33, 13.5 Flying Vehicles (clarification, addition and correction):** Aircraft and helicopters (sub-classes of flying vehicles) do not have armor when constructed according to FF&S and therefore the following special combat rules (derived from the *Traveller: The New Era* rulebook and *Twilight: 2000*, second edition) apply.

The only ground weapons which may fire at aircraft and helicopters are automatic weapons (defined as those with a *Striker* ROF greater than 2 at short range) and surface-to-air missiles. All automatic small arms weapons cause minor damage if they achieve a hit. All larger caliber (2cm+ if CPR) automatic weapons cause major damage. Each firing automatic weapon may only achieve one hit on an aircraft target in a *Striker* fire phase, regardless of the actual number of hit rolls successfully made. Some aircraft may mount defensive countermeasures such as decoys or jammers. These function as specified elsewhere in the rules, usually adding an extra difficulty modifier to the 'to hit' roll(s) of affected sensors or weapons. Minor damage causes an aircraft to abort and leave the game after this turn, and to resolve any attacks this turn with a one difficulty level modifier additional to any others. Major damage means the aircraft is immediately removed from the game.

**Page 33, 13.52 Approach Fire (correction):** Change centimeters to "inches".

**Page 33, 13.522 Bombs and Rockets (correction):** Change 10cm to "2 inches". Change 50cm to "10 inches". Change 100cm to "20 inches". Add, "The height of the flying vehicle is added to any lateral range when it is fired upon by weapons on the ground or on flying vehicles at low level."

**Page 33, 13.53 Pop-Ups (addition):** Add, "Grav and VTOL Flying vehicles may execute a pop-up attack. They rise vertically from behind cover, spot and fire, and descend back behind cover all in the same turn. This counts as movement in all respects, except the vehicle may conduct direct fire in the Opportunity Fire Sub-Phase. They may only be fired upon by firers eligible to fire in the Opportunity Fire Sub-Phase, unless they are still visible to the firer when the pop-up is completed."

**Page 35, 14.2 General Support Fire (correction):** Change "They are fired by battalions: a single battery may never be assigned to a general support mission" to "They are fired by batteries: a single weapon may never be assigned to a general support mission."

**Page 35, 14.22 Counterbattery Fire (clarification and addition):** Counterbattery sensors detect fire by mortars, guns, rockets, and mass drivers. Add, "The weapon firing counterbattery fire must have an indirect fire range equal or greater than the targeted weapon."

**Page 36, 14.3 Destruction by Area Fire (clarification):** Submunitions do not cause damage to structures.

**Page 37, 15.2 Night (correction):** Change 12.5cm to "2.5 inches" and 100cm to "20 inches".

**Page 37, 15.212 Command and Orders (correction):** Change 15cm to "6 inches" and 5cm to "2 inches".

**Page 38, 15.72 White Light Spotlight (correction):** Change 2cm to "1 inch" and 200cm to "40 inches".

**Page 38, 15.73 IR Spotlights (correction):** Change 2cm to "1 inch" and 100cm to "20 inches".

**Page 39, 16.21 Light Mud (correction):** Change 4cm to "4 inches" and centimeter to "inch".

**Page 39, 16.24 Flooded Areas (correction):** Change 5cm to "1 inch".

**Page 39, 16.26 Unmiring Vehicles (correction):** Change cm to "inch".

**Page 40, 16.31 Snow Cover and 16.32 Deep Snow Cover (correction):** Change cm to "inch".

**Page 43, 18.21 Portable Bridges (correction):** Change 2cm to "1 inch", 1cm to "0.5 inch" and 4cm to "2 inches".

**Page 44, 18.24 Ferries (correction):** Change 25cm to "5 inches" and 50cm to "10 inches". Change 2cm to "0.5 inches".

**Page 44, 18.3 Assault Boats (correction):** Change 10cm to "2 inches" and 2cm to "0.5 inches".

**Page 44, 18.4 Minefields (correction):** Change 5cm to "1 inch".

**Page 44, 18.411 Manual Placement (correction):** Change 10cm to "2 inches".

**Page 44, 18.413 Mine Launchers (correction):** Change 50cm to "10 inches".

**Page 44, 18.414 and 18.422 Remotely Delivered Mines (RDM) (correction):** These rules are in error. Change to "TL7+ indirect area fire artillery of 10cm bore or greater may fire remote delivered mines using the normal indirect area fire rules. Each weapon that fires accurately may place a single uncamoouflaged minefield square (or two adjacent squares if an ARL). They may not be placed in woods."

**Page 45, 18.433 Line Charges (correction):** Change 5cm to "1 inch".

**Page 45, 18.524 Antitank Ditches (correction):** Change 1cm to "0.5 inches".

**Page 45, 18.525 Barbed Wire (correction):** Change 10cm to "2 inches" and 5cm to "1 inch" and 1cm to "0.5 inches".

**Page 46, 18.527 Abatis and 18.528 Antivehicular Obstacles (correction):** Change 1cm to "0.5 inches".

**Page 46, 18.6 Demolitions (correction):** Change 10cm to "2 inches".

**Page 47, 19.1 Direction Finders (clarification):** If a radio/radar jammer is radiating, then it will be the emitter located before any radio/radar and while it continues to radiate it will prevent the location of any other emitter.

**Page 48, 19.31 Systems Affected (addition):** Add "...and tac missiles" to those systems affected by decoys.

**Page 49, 20.1 Mission Orders (correction):** Change 50cm to "10 inches".

**Page 49, 20.22 Range (correction):** Change 20cm to "4 inches".

**Page 56, Rule 25: Campaign Moves (clarification and addition):** More complete campaign rules, including mass combat rules, are given in *World Tamer's Handbook* pages 43-47.

**Page 65, Advance Party (correction):** The unit is unarmored, delete "Armor: Combat Environment Suit Save: 1". Delete 7mm LMG-6 stat line as this unit is not equipped with LMGs.

**Page 66, First Element and Second Element (correction):** The units are unarmored, delete "Armor: Combat Environment Suit Save: 1".

**Page 72, The Blood-Life Tercio (correction):** TL10 Battle Dress has a Save of 4, not 6. Supreme Headquarters. TL10 Combat Armor has a Save of 1, not 2.

**Page 89, Life Guard (Main Body) (correction):** TL10 Combat Armor has Save of 1.

**Page 91, Converting Traveller to Striker. Direct Fire Weapons. Number of Dice (correction):** To the chart add "ROF:4 Dice: 4".

**Page 91, Direct Fire Weapons, Range (correction):** Change to "Calculate short range is Striker (in inches) by dividing the Traveller/FF&S range (in meters) by 50, rounding to the nearest whole number." Burst. Change to "...divide the Traveller primary burst radius (in meters) by 50, rounding all fractions up." Nuclear Burst. Change to "...dividing the Traveller destruction and primary burst radii (in meters) by 50." Indirect Fire Weapons and Sensors and Communicators. Range. Change to "Each kilometer is 20 inches on the gaming table." Personnel. Movement. Change to "...the movement allowance in inches, take the Traveller walking speed in meters and divide by 2.5...subtract 0.5 inches from the movement allowance for every agility reduction due to body armor."

**Page 92, Vehicles, Movement (correction):** Change to "...the cross-country movement allowance for ground vehicles, in inches, take the safe cross-country combat speed (in meters) and divide by 2.5. A vehicle with a cross-country safe combat speed of 10 meters would have a Striker cross country movement allowance of 4 inches." Change to "To find the NOE movement allowance in inches for flying vehicles, multiply the Traveller safe NOE speed in 10-metre grid squares by 4. To find the high altitude travel movement for flying vehicles in inches, multiply the Traveller high altitude movement rating in 10-metre grid squares by 12."

**Page 132, Appendix F: Missiles (correction):** The rating of many missiles is incorrect. For Imperial TL15 95kg Heavy Tac Missiles, command guided and target designated variants should have A:5 (not 4), and their A:8/10 tgt desig/tgt seeker variants should have max/short range of 13.3km/12.4km/11.8km not 133km/124km/118km. For Imperial TL15 30kg light 'fire and forget' tac missiles, the max/short range is .54km (540m) not 54km. For Reformation Coalition TL12 Tac Missiles, for Skybird missiles the correct max and short range is 20.9km. For Songbird missiles, the correct max and short range is 24.8km. For Jailbird missiles, the correct max and short range is 3.5km. For Butcherbird missiles, the correct max and short range is 3.4km. For Zhodani TL14 35kg Tac Missiles, correct max/short range is 5.5km, not 55km.

**Page 156, Quick Reference Chart (correction):** The table labeled “Orbital Range Bombardment” should read “Aerial Bombardment”.

A replacement Striker II Quick Reference Chart is at the end of this errata document.

**REGENCY SOURCEBOOK** (0314, Regency Manual 1, 1995)

The following errata has been confirmed for *Regency Sourcebook*.

**Page 35, UWP Abbreviations and Codes (omission):** Notes and explanation about government code “X” was inadvertently left off the list. “X: Droyne Hierarchy. Established communities are ruled by hereditary and long-established governments.”

**Page 39, Aramis Subsector, Pavanne (correction):** The correct UPP for this world is E210000-0.

**Page 40, Querion Subsector, 1117 Data (correction):** Winston (0620), Entrope (0720) and Anselhome (0820) should all have “Da” as their allegiance code. At the end of the Fifth Frontier War, these worlds had been lost by the Sword Worlds to the Darrian Confederation.

**Page 49, District 268/Plankwell Subsector, Mille Falcs (correction):** Mille Falcs has a class A starport in 1202, and while the 1202 subsector data is correct, the map is not (it shows a class B starport).

**Page 50, Glisten Subsector, Craw (correction):** Craw’s TL numbers are switched; it should be TL 3 in 1117 and TL 6 in 1202.

**Page 51, Trin’s Shroud Subsector, 1202 Data (correction):** The subsector description indicates that Trin has a naval base, but the subsector map shows it with a class C starport and the map shows it having a class C starport and a scout base. Trin has a naval base, so it must have a class B starport (as class C starports cannot have naval bases). So the map should be corrected to show the naval base instead of a scout base, and the UWP corrected to “B894861-8”.

**Page 64, Gulf Subsector, first paragraph (correction):** References made to the 193rd Fleet should instead refer to the 303rd.

**Page 64, Gulf Subsector, Endup/Lucifer (correction):** Lucifer has a class B starport in 1202; the map is wrong but the subsector data is right.

**Page 86, Empress Marava-class Far Trader, Damage Tables (correction):** On the Damage Tables, areas 8-9, under Internal Explosion, the text should read “1-6: TS, 7-20: Hold” not “17-20 Hold.”

**Page 90, Cuspid-type Gunboat, Electronics (correction):** Under the description of the *Cuspid*-type Gunboat, the range listed in hexes for the 300,000-km radio should be 10, not 2.

**Page 92, Barekdoldin-class Darrian Patrol Cruiser (correction):** The last area was inadvertently left off the Damage Tables. That line of text should have a line for Area 20, with nothing for surface hits and “Eng” for the Internal Explosion portion of the table.

**STAR VIKINGS** (0315, Reformation Coalition Manual 4, 1994)

No errata identified.

**ALIENS OF THE RIM** (0318, Volume 1, 1995)

No errata identified.

**REGENCY COMBAT VEHICLE GUIDE** (0320, Regency Manual 2, 1995)

No errata identified.

**THE GUILDED LILLY** (0330, Virus Redux Epic 1, 1995)

No errata identified.

# Striker II

## General Reference Card & Sequence of Play

### 1 COMMAND PHASE

**A) Place orders** See order summary below; 6" radius of effect or at head of column

### 2 MOVEMENT PHASE

- A) Roll for initiative, high roll selects Side A**  
**B) Side A reveals orders & moves**  
**C) Side B reveals orders & moves**

#### ORDERS SUMMARY

Order	Basic Move	Op Fire	Gen Fire	Final Fire
No order	None	Yes	Yes	Yes
Take Cmd	None	Yes	Yes	Yes
Cautious Adv.*	<1x	—	Yes	Yes
Rapid Adv.**	½-2x	—	—	Yes
Disengage+**	<1x <sup>^</sup>	—	—	Yes
Travel	1-3x	—	—	—
Rally	None	—	—	—
Regroup	None	—	—	—

+ No Op Fire unless moving closer to firing enemy

<sup>^</sup> May stop in cover if out of LOS

\*-1 ROF unless stabilized

\*\* -2 ROF unless stabilized

#### TERRAIN MOVEMENT EFFECTS

Terrain Type	Pers	Wheeld	Trackd	ACV
Broken	x2	P	x4	x2
Cliff	P	P	P	P
Contour line	—	-2"	-1"	-4"
Creek/Ford (to cross)	x2	x2*	x2	—
Open wood	—	—	—	x2
Wood	—	x4	x2	P
Forest/jungle	x2	P	P	P
Cross railway embankment	—	P	-2"	-4"
Rubble	x2	P	P	x4
Sand	—	x2	—	—
Sand dune	x2	x4	x2	—
Settlement	x2	x4	x2	x4
Steep slopes	x2	P	P	P
Swamp	x2	P	P	-

P=Prohibited x #=times normal mvt \*only at ford

**D) Resolve Spotting:** See next 2 charts

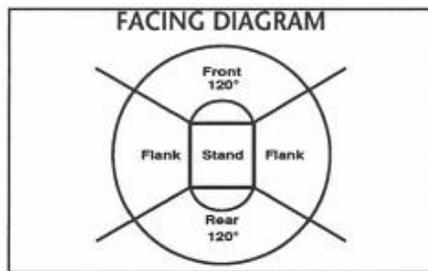
#### SPOTTING

Spotting Stand is	Diff Mod
Recon	-1
Elite	-2
Veteran	-1
Novice	+1
Moving	+1
Enclosed vehicle spotting to front*	+1
Enclosed vehicle spotting to flank*	+2
EMS/Radar is jammed	+1
Target Stand is	Diff Mod
Moving	-1
Firing	-1
Stationary under cover	+1
Personnel	+1
Seen thru light smoke	+1
At Night	+1..+3
Weather	+1..+3
Using decoys of same TL	+1
Using decoys of higher TL	+2

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

\*\*If target within sensor short range, the cumulative +diff mods are instead used as progressive halvings of the printed short range of the spotting unit.

Personnel autospot at 1".



**Obstacles:** Cover, hills, smoke and disabled and destroyed vehicles.

**Cover:** jungle, woods, open woods, swamps, sand dunes, settlements and rubble.

#### TERRAIN VISIBILITY/SPOTTING

Terrain	Vis...within	...in/out/through
Woods	2"	Edge
Settlement	2"	Edge

#### OBSTACLE HEIGHT

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

### 3 FIRE PHASE

**A) Opportunity Fire Sub-Phase, Direct Fire** (see charts below) & Indirect (only if continued)

**B) Resolve Spotting of firing stands**

**C) General Fire Sub-Phase, stationary stands** may change facing (no move); resolve eligible fire

**D) Resolve additional spotting of firing stands**

**E) Final Fire Sub-Phase, all remaining stands** may face, resolve remaining fire at <5" only

**F) Resolve additional spotting of firing stands**

#### DIRECT FIRE TO HIT MODIFIERS

	Diff Mod
Tgt concealed*	+1
Single fig tgt stand	+1
Tgt pinned	+1
Tgt Mvt	+Agility
Fire Control	-FC bonus
Decoy = TL	+1
Decoy > TL	+2

\*Concealed if in vegetation, partially obscured by smoke, deployed partially behind an obstacle (hull down vehicle or infantry firing over wall), or inside of a structure, such as a settlement, entrenchment or pillbox.

#### EFFECTS OF HIT

Class	1st hit	2nd hit	3rd hit	4th hit
Novice	Elim.	—	—	—
Exp.	FB	Elim.	—	—
Vet.	N/E	FB	Elim.	—
Elite	N/E	N/E	FB	Elim.

**Pinned:** May not move toward enemy. Only fire in Final Fire Sub-Phase.

**Forced Back:** Pinned. Full cross-country move away from closest visible enemy. May stop in cover.

**Permanent -1 Morale modifier.**

#### VEHICLE PENETRATION

Penetration	Effect
+1,2,3	1 hit
+4,5,6	2 hits
+7	Destroyed

### 4 MORALE PHASE

**A) Check Morale** if fired upon or can see eliminated friend.

#### MORALE MODIFIERS

Condition	Mod
Each stand/vehicle in 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	-2
Any enemy stand/armed vehicle within 5"	-3
Unit is operating under travel order or at night	-4
Any permanent morale modifiers	Var
Stand is under cover	+4

\*If the stand is hit more than once in the same turn, the modifier remains -1.

#### MORALE EFFECTS

Roll	Effect
+1, 2, 3	Pin
+4, 5, 6	Forced Back
+7, 8, 9	Demoralized
+10	Eliminated

**Demoralized:** may not fire or move unless not in cover & can see enemy. Eliminated if cannot move without coming closer to enemy. Permanent -2 morale modifier. If already demoralized, eliminated.

**B) Rally stands.**

**C) Regroup stands.**

### 5 MELEE PHASE

**A) Stands in base contact resolve melee**

#### MELEE MODIFIERS

Stand Type	Modifier
Single-figure stand	-5
Heavy Wpn crew stand	-5
Cavalry stand	+5
Each additional stand	+5
Melee only*	+2
Carrying shield	+2
Melee armored**	+save no.
Regular armored	+twice save no.
Higher morale	+difference

\*Melee-only troops are those which are without firearms & 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.

**B) Remove or flip Pin markers**