CONSOLIDATED MEGATRAVELLER ERRATA, v2.10 (03/01/07)

INTRODUCTION

I'm a believer; I believe that **MegaTraveller** had the best potential of any **Traveller** rule set ever released. What became the millstone around its neck were the expansive errata required to make sense of the rules. Since I still like and use these rules, I've consolidated this errata from several documents:

- MegaTraveller Errata, dated 4/1/1988;
- MegaTraveller Errata, dated 10/1/1988;
- MegaTraveller Errata and Clarifications, dated 09/01/1990
- Consolidated MegaTraveller Errata, dated 04/01/1993
- material printed in issues of *Challenge*, *Traveller's Digest*, and *the MegaTraveller Journal*.
- enhancements to the Trade and Commerce rules in *Knightfall*.
- rebuilt vehicle designs from *Imperial Encyclopedia* presented in DGP's *101 Vehicles.*

In addition, I've applied some formatting in places to make the document cleaner. If you've got additions, contact me at don.mckinney@gmail.com. This is a LIVING version of this document—my intention is to continue to add to it, making it available for other **MegaTraveller** players and referees.

This errata provides corrections and elaborations for the entire **MegaTraveller** rules line. Currently included errata covers: **Players' Manual** (0211), **Referee's Manual** (0212), **Imperial Encyclopedia** (0213), **Rebellion Sourcebook** (0214), **COACC** (0216), **Knightfall** (0219), and **Hard Times** (0221). As I find errata for *Referee's Companion* (0215), *Assignment Vigilante* (0223), *Astrogator's Guide to Diaspora Sector* (0224), and *Arrival Vengeance* (0225), I will add them to this collection. I am not considering individual errata for Fighting Ships of the Shattered Imperium (0218), as most of the designs presented in that book must be rewritten.

The three missing product numbers, *Flashback* (0217), *On the Edge* (0220), and *Rebel's Tales* (0222) were never published by GDW.

UPDATES

This section details updates to this document.

- v2.10, 03/01/07: some cleanup of existing errata from CoTI discussions.
- v2.09, 02/13/07: more errata from CoTI discussions, plus additional *Imperial Encyclopedia* and *Rebellion Sourcebook* errata.
- v2.08, 02/02/07: added errata and addenda from CoTI discussions and TML archives, including stellar generation and mass drivers.
- v2.07, 01/09/07: incorporated additional CoTI discussion errata, added UPDATES and PROBLEMS and ADDENDA sections.
- v2.06, 10/17/06: added rebuilt vehicle designs from *101 Vehicles* to *Imperial Encyclopedia* errata.
- v2.05, 09/23/06: reviewed 1990 errata sheets for missing data.
- v2.04, 09/16/06: added clarifications from *Referee's Gaming Kit* and other research.
- v2.03, 08/22/06: incorporated material from CoTI discussions and research.
- v2.02, 08/12/06: added errata from Challenge #68's "Mercenary Supermart" article.
- v2.01, 08/04/06: added Trade and Commerce errata from *Knightfall*.
- v2.00, 07/21/06: original posting of the Consolidated MegaTraveller Errata document.

ADDENDA

This section notes errata which addresses problems without moving away from the original rule construction as presented in **MegaTraveller**.

- Reconciling *Book 8, Robots* with the vehicle construction rules in the Referee's Manual presents serious issues. After much research David Jaques-Watson has presented a small set of changes which match the original author's intent and allow the contact-based locomotion design rules to actually be used.
- Added a set of rules for modifying the results during Stellar Generation to produce something more realistic, based on changes from Mark "Geo" Galinas' *Challenge* #77 article on modifying worlds for TNE, as well as the rules Harold Hale proposed for the star data ultimately used for *Regency Sourcebook* (TNE). As those changes were implemented for the setting, and really represent fixes for *Book 6, Scouts*, they make for nice addenda here.

PROBLEMS

There are certain issues with the MegaTraveller rules as presented for which no obvious errata exists. At some point, it is hoped that the MT community might agree on "addenda" to cover these issues. For now, they are listed here as known problems…

- Merchant Free Trader characters cannot get Sensor Ops skill.
- Errata dropping the cost of radar from RM 68 exists; should there be a similar drop for radar jammers?
- Type X Particle Accelerator spinal mount weapon missing from tables (RM 71)
- High Velocity Guns (RM 77) need to expand to allow naval guns
- Incorporate TAC missiles from MTJ #3?
- Building robots in MT?
- Stellar generation rules in MT need a complete general overhaul.
- Trader skill as determinant of how long a prediction is good for?
- Simplify hasty tasks as half time, cautious tasks as double?
- Prospecting buggy carried by Seeker missing from *Imperial Encyclopedia*

EXPANSIONS

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

- Replacement body parts, prosthetics and bionics (Travellers' Digest #12, #13 and #14).
- MegaTraveller Starship Design Example (Travellers' Digest #13) *[steps great, example broken]*.
- Children in MegaTraveller (Travellers' Digest #15).
- Nuclear Radiation (Travellers' Digest #15).
- Mental Illness (Travellers' Digest #17).
- Diseases and their Treatment (Travellers' Digest #20).
- Suspended Animation (Travellers' Digest #21).
- Custom Ship Add-ons (MegaTraveller Journal #4).
- Grapnel Guns (Challenge #38).
- One Small Step, rules for pre-gravitic spaceflight (Challenge #45 and #47/**Hard Times**).
- Special Psionics (Challenge #47).
- When it's Lances, Not Lasers, pre-gunpowder combat (Challenge #49).
- Wet Navy (Challenge #53, #54 and #60).
- Wind & Wood, Steel & Steam, early tech design (Challenge #61).
- Missing Links/Personal Weapons, slugthrowers (Challenge #64 and #66).
- Advanced Lasers (Challenge #66).

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PLAYERS' MANUAL

The following corrections should be noted for the **Players' Manual**.

Page 9, right column, Universal Task Profile Format (correction): The sample task is incorrect. The correct task should be:

To diagnose damage done to an air/raft:
Routine, Gravitics, Grav Vehicle, 15 min (uncertain)

Page 13, World Profile Code Equivalents Table (correction): There are several errors in this table. Below is the corrected table.

WORLD PROFILE CODE EQUIVALENTS

Value	Size	Atmos	Hydro	Pop	Law Code	Tech Code
0	Asteroid	Vacuum	Desert World	Low Pop	No Law	Pre-Industrial
1	Small	Vacuum	Dry World	Low Pop	Low Law	Pre-Industrial
2	Small	Vacuum	Dry World	Low Pop	Low Law	Pre-Industrial
3	Small	Vacuum	Wet World	Low Pop	Low Law	Pre-Industrial
4	Small	Thin	Wet World	Mod Pop	Mod Law	Industrial
5	Medium	Thin	Wet World	Mod Pop	Mod Law	Industrial
6	Medium	Standard	Wet World	Mod Pop	Mod Law	Pre-Stellar
7	Medium	Standard	Wet World	Mod Pop	Mod Law	Pre-Stellar
8	Large	Dense	Wet World	Mod Pop	High Law	Pre-Stellar
9	Large	Dense	Wet World	High Pop	High Law	Early Stellar
10	Large	Exotic	Water World	High Pop	High Law	Early Stellar
11	—	Exotic	—	—	Ext Law	Avg Stellar
12	—	Exotic	—	—	Ext Law	Avg Stellar
13	—	Exotic	—	—	Ext Law	Avg Stellar
14	—	Exotic	—	—	Ext Law	High Stellar
15	—	Exotic	—	—	Ext Law	High Stellar

Page 13, Homeworld Description Codes (omission): Add to the bottom of the Tech Code DMs column: Starport X, –2.

Pages 13 and 21, Default Skills, Rank and Service Skills (clarification): While characters generated with the Advanced Character Generation system do not gain default rank and service skills, advanced characters do gain the default skills for their homeworld tech codes.

Page 15, Aging (clarification): The aging rules used when a character reaches age 34 and beyond apply during *play* as well as during character generation. This is hinted at on page 16 in the paragraph on disability, but never explicitly stated in the rules. If any character has a birthday during an adventure session and reaches one of the ages shown on an Aging Table row (page 47), that character must immediately make the indicated saving throws to avoid losing UPP points.

Page 15, right column, Homeworld Limitations (clarification): After the sentence about Law Enforcers, Pirates, and Rogues, add the following sentence: "Weapon skill selections for Army and Marines characters are not restricted by the homeworld's law code."

Page 16, right column, Aging Crisis (omission): At the end of the first paragraph, a part of the line is missing: "A basic saving throw of 8+ applies to avoid death (subject to a DM for any attending Medical skill)."

Page 17, left column, Retirement (addition): If a character being generated wants to undergo training in psionics, he musters out into the game.

Pages 19 and 21, Mustering Out Benefit Objects, Weapons (clarification): Characters can choose any weapon that is not greater than their character's homeworld Tech Code, and is also within the homeworld's Law Code. Rogues, Pirates and Law Enforcers can select weapons that are one law code lower than their homeworld. Nobles, who are not subject to any homeworld restriction, can select any weapon.

Page 21, Mustering Out Benefits, Travellers' Aid (addition): Membership in the Society may also be purchased. Such purchase involves avoidance of a "blackball" (throw 4+ to avoid), and (if accepted) payment of an initiation fee of Cr1,000,000. Only one application per person is allowed.

Pages 20, 22 and 24, Mustering Out Benefit Rolls (correction): The Mustering Out Benefits tables shown do not match the text on page 17. The correct table, which matches the text, is shown below:

Notice the rank bonus rolls are mutually exclusive. In other words, a character who is rank 5 or 6 gets 3 extra rolls; he does not count as rank 1, 2, 3 or 4.

MUSTERING OUT BENEFITS

Per term of service	+1
Rank 1 or 2	+1
Rank 3 or 4	+2
Rank 5 or 6	+3

Benefits Table: DM +1 if rank 5+.
Cash Table: DM +1 if Gambling-1+ or Prospecting-1+

Page 21, Acquired Skills Tables (correction): On the Service Skills Table, die roll 1 under Scouts should be Survival, not Grav Veh. On the Advanced Education Table, die roll 2 should be Survey, not Mechanical. These changes allow Scouts to gain Survival and Survey skills.

Page 25, Mustering Out Benefit Objects, Weapon (clarification): Player characters can choose any weapon that is not greater than their character's homewold tech code, and is also within the homeworld's law code. Rogues, Pirates and Law Enforcers can select weapons that are one law code lower than their homeworld. Nobles, who are not subject to homeworld legal restrictions, can select any weapon.

Page 25, Mustering Out Benefit Objects, Corsair (correction): When a pirate character receives a Corsair as a benefit, it is wholly owned upon the first receipt of the benefit—no payments are ever made. No matter how many times the Corsair is received as a benefit, only one ship is received. This is consistent with the statement made on page 19, second column, under Starships.

Page 26, Character Formats, Rogue (omission): The Rogue is missing the automatic Streetwise-1 skill.

Pages 28 and 29, Skill List (addition): Add "Autoshotgun (Weapon)", "Flamethrower (Weapon)", "Gauss Pistol (Weapon)" and "Shotgun (Weapon)" to the skill list.

Page 28, middle column, Combat Rifleman skill (addition): Combat Rifleman (Includes): Accelerator Rifle, Advanced Combat Rifle, Assault Rifle, Assault Rocket Launcher, Autorifle, Autoshotgun, Carbine, Gauss Rifle, Rifle, Shotgun.

Page 28, middle column, Economic cascade (correction): Economic (Cascade): Admin, Broker, Legal, Trader.

Page 28, right column, Handgun skill (addition): Handgun (Includes): Body Pistol, Gauss Pistol, Pistol, Revolver, Snub Pistol.

Page 28, right column, Heavy Weapons skill (addition): Heavy Weapons (Includes): Autocannon, Grenade Launcher, Flamethrower, Light Assault Gun, Machine Gun, VRF Gauss Gun.

Page 28, right column, Interpersonal cascade (addition): Interpersonal (Cascade): Admin, Interview, Liaison, Lingistics, Recruiting, Steward.

Page 29, middle column, Rifleman skill (addition): Rifleman (Includes): Accelerator Rifle, Autorifle, Autoshotgun, Carbine, Rifle, Shotgun.

Page 29, middle column, Space Tech cascade (addition): Add Naval Architect to the Space Tech cascade.

Page 31, left column, Autoshotgun skill (addition): Autoshotgun (Weapon): The individual can use an Autoshotgun as a weapon.

Page 31, left column, Battle Dress skill (clarification): Add to the end of the sentence, "and the weapons systems normally associated with it".

Page 32, left column, Combat Rifleman skill (addition): Combat Rifleman (Includes: Accelerator Rifle, Advanced Combat Rifle, Assault Rifle, Assault Rocket Launcher, Autorifle, Carbine, Gauss Rifle, Rifle, Shotgun).

Page 34, left column, Flamethrower skill (addition): Flamethrower (Weapon): The individual can use a flamethrower as a weapon.

Page 34, right column, Gauss Pistol skill (addition): Gauss Pistol (Weapon): The individual can use a Gauss Pistol as a weapon.

Page 34, right column, Grenade Launcher skill (clarification and addenda): The individual can use all

forms of grenade launchers, including RAM, auto, and RAM auto grenade launchers, as well as grenades launched from rifle-based launchers.

Page 35, left column, Gun Combat skill (clarification): Change the phrase "slug throwers" to "ranged weapons", as not all weapons in this cascade are slug throwers.

Page 35, left column, Handgun skill (addition): Handgun (Includes: Body Pistol, Gauss Pistol, Pistol, Revolver, Snub Pistol).

Page 35, left column, Heavy Weapons skill (addition): Heavy Weapons (Includes: Autocannon, Grenade Launcher, Flamethrower, Light Assault Gun, Machine Gun, VRF Gauss Gun).

Page 35, right column, Interpersonal cascade (addition): Interpersonal (Cascade: Admin, Interview, Liaison, Lingistics, Recruiting, Steward).

Page 36, right column, Machine Gun skill (clarification and addenda): The individual can use a machine gun or gatling gun.

Page 36, right column, Mass Driver skill (clarification and addenda): The individual is trained in using mass drivers and other direct fire artillery (such as CPR guns and recoilless rifles) as battlefield weapons.

Page 36, right column, Medical skill (correction): Tasks shown are incorrect. Replace tasks with following sentence: Use of the Medical skill is governed by the Assessing Damage rules on page 75 of the **Player's Manual**.

Page 37, left column, Neural Weapons skill (correction): This should be "Includes:", not "Cascade:".

Page 38, left column, Rifleman skill (addition): Rifleman (Includes: Accelerator Rifle, Autorifle, Autoshotgun, Carbine, Rifle, Shotgun).

Page 38, right column, Shotgun skill (addition): Shotgun (Weapon): The individual can use a shotgun.

Page 38, right column, Small Watercraft (correction): Change "Dry World" to "Desert World". Presumably, one could use small watercraft on a small body of water.

Page 44, left column, College (correction): College graduates with NOTC enter either the Navy or Marines; college graduates with OTC can only enter the Army.

Page 45, left column, Merchant Academy (correction): Remove the phrase "and is immediately drafted into the Army for" with "and continues with". Since a character must be in the Merchants to enter the Merchant Academy, anyone unsuccessful simply continues with their first term as a short (three-year) term.

Page 45, Flight and Medical School (addition): The intent with character generation is that any one of these schools represents a significant career direction, and thus they are mutually exclusive. While it is not impossible, most people do not indulge in full-blown multiple career paths. If the player insists, the character must succeed at the following task:

To attend both flight school and medical school:
Formidable, End+Int
Referee: The character must have at least a +3 DM or this task automatically fails.

Page 46, Brownie Points (clarification): Brownie points are a form of abstract "role-playing" to be used only during advanced character generation. They are not intended to be used after the character is generated.

Page 49, left column, Skills (correction): For Mercenary characters, the Combat Rifleman skill replaces the Rifleman skill in the Gun Combat cascade.

Page 51, Special Assignments (correction): DMs should be: Enlisted, DM +1 if Endurance 7+; All, DM +1 if Education 7+.

Page 51, Service Skills, NCO Skills (correction): DM for E9 should be +3, not +2.

Page 51, Military Occupational Specialty Table (correction): Die roll 2 under Infantry, Commando, and Ship's Troops should be the Special Combat cascade, not Gun Combat.

Page 53, left column, Assignment Resolution, Survival (correction): Combat missions are battle, siege and strike—not police action, counterinsurgency or raid.

Page 54, Assignment Table (correction): Change die roll 3 from Shore Duty to Frozen Watch. This makes the table consistent with the Frozen Watch paragraph under Special Rules on page 53.

Page 54, Advanced Naval Characters (omission): The Technical branch assignment resolution table was accidentally left out:

Technical	Training	Shore Duty	Patrol	Siege	Strike	Battle
Survival	auto	3+	3+	3+	3+	3+
Decoration	none	none	none	none	9+	8+
Promotion	(7+)	8+	9+	8+	7+	7+
Skills	7+	8+	9+	7	7+	7+

Page 55, Engineering School (addition): Under the Special Assignments column, add Naval Architect to the list of skills available at Engineering School. Naval characters can now acquire Naval Architect skill.

Page 60, Initial Activities (correction): Change Combat Arm Selection to Department Assignment.

Page 60, left column, Initial Activities, Draft (correction): Delete the reference to the draft. In **MegaTraveller**, Merchant characters never enlist via the draft. Flyers (a military career) have replaced Merchants (a non-military career) in this regard.

Page 62, Department Assignment: DM +1 if Edu 9+.

Page 63, Skill Tables, Merchant Life column (revision): As it stands, Merchant characters have little access to Characteristic improvements on the skill tables. Replace the existing column with the following:

Die   Merchant Life
1   Brawling
2   **Physical**
3   Gambling
4   Trader
5   **Mental**
6   **Inborn**

Page 63, Skill Tables, Shipboard Life column (correction): Change "Zero-G Cbt" to "Zero-G Environ".

Page 63, Skill Tables, Free Trader, Business column (correction): Change the die roll 5 entry from Steward to Pilot. With this change, a Free Trader can now acquire Pilot skill.

Page 63, Skill Table Notes (omission): Merchant Life available to all characters. Shipboard Life available to all (including Free Traders) except Sales and Admin Departments. Officer skills available to rank O0+. Merchant Skills available to all (including Free Traders) except Engineering Department. Master Skills open to Deck Department rank O4+.

Page 63, Special Duty (omission): The information on Special Duty resolution was inadvertently omitted:

SPECIAL DUTY

Die	Deck Hands	Officers
1	Security Trng	Trade School
2	Trade Station	Command School
3	Helm Trng	Deck School
4	Drive Trng	Engineer School
5	Steward Trng	Purser School
6	Commission	Business School
7	Commission	Department Test

DMs: If Edu 9+, DM +1.
   If rank O4+ and not in Deck Department, DM +1.

SPECIAL DUTY RESOLUTION (1D)

Business School: Throw 5+ for: Admin, Computer, Legal, Liaison. Confers DM +1 on the exam (when taken) for O6+. Transfer to Sales department.

Command School: Throw 5+ for: Admin, Leader, Legal, Ship Tactics. Transfer to Deck department.

Commission: Receive rank O0 (rank O1 in the Free Traders) and Department Assignment (determine specific assignment and resolve normally). Must pass an examination for promotion within 4 years or revert to enlisted rank.

Deck School: Throw 5+ for: Communication, Computer, Gunnery. Transfer to Deck Department.

Department Test: Individual may take a Department Test for promotion without regard for skill requirements.

Drive Training: Throw 5+ for: Electronics, Engineering, Gravitics, Mechanical. Transfer to Engineering department.

Engineering School: Throw 5+ for: Admin, Computer, Electronics, Engineering, Gravitics, Mechanical. Transfer to Engineering department.

Helm Training: Throw 5+ for: Navigation, Pilot, Sensor Ops, Ship's Boat. Transfer to Deck department.

Purser School: Throw 4+ for: Admin, Computer, Liaison. Transfer to Purser's department.

Security Training: Throw 4+ for: Zero-G Environ, Vacc Suit, Brawling, Computer.

Steward Training: Throw 4+ for: Admin, Liaison, and Steward. Transfer to Purser's department.

Trade Station: Receive Trader Skill. Throw 4+ for: Broker, Liaison. Transfer to Admin department.

Page 66, 75, Hits Value and Character Damage (clarification): After a combat session has finished, any damage the character has taken to his life force is applied back to his stats. If the character enters combat again before any healing has taken place, you will use his lower, damaged life force he had at the end of the immediately previous combat session.

Now if some healing has taken place, you'll need to determine what his new, less-than-full life force might be, and use it in the next combat session about to take place.

But unless your character needs to go into combat, don't worry about figuring out his less-than-full life force. Only if the wounded character ends up in combat before he's healed is it worth checking to see what his life force values are before he's good as new again.

Page 66, Tactical Points Pool (addition): Some referees have reported that their players are abusing the tactical points pool. The intent of tactical points is to simulate the effect of tactics skill being shared among the group before and during the fight. This leads to some suggestions to avoid abusive use of the tactical points pool:

- The single highest tactical skill level from among the group represents the maximum possible draw from the pool available at any one time. Thus, if the highest Tactics skill possessed by any one character in the group is Tactics–3, the maximum draw at any one time is 3.
- If the referee feels a questionable use of tactics points is occurring (such as a character with Handgun–0 getting 8 points from the tactics pool to get a good chance of getting a hit), force the player to roll a special communications task (using whatever is appropriate: radio, shouting, and so on) with another character who has Tactics skill. If the task is successful, the Handgun–0 character may only draw as many tactical points from the pool as the character he communicated with has as a Tactics skill level.

   However, the referee should only use this task as a last resort to keep abuses in line: the questionable situation has to be really "stretching it" before this rule should be used.
- Characters do not have to contribute all their Tactics skill as points to the pool. They may hoard some of their Tactics skill for themselves, creating their own private tactics pool. This may sometimes be out of character, however.

Page 67, left column, Surprise (correction): In the referee's paragraph of the task for determining surprise, change "If any mishap occurs..." to "If exceptional failure occurs...". Thus, if the attacking party gets exceptional failure on the surprise task roll, the defending party has surprise instead.

Page 67, definitions sidebar, Distance Scale (correction): The last line of the Distance Scale definition should read: "Therefore this weapon's danger space is one square in the 15m scale."

Page 67, left column, Surprise (correction): The task for determining if an attacking party has surprise should have "(unskilled OK)" at the end of the task line.

Page 68, left column, Surprise (correction): The task for raising an alarm during a surprise attack should have "(unskilled OK)" at the end of the task line.

Page 68, left column, Interrupts (corrections and clarifications): The movement DM is always the speed of the interrupting unit. The interrupting unit may act against anyone or anything, not just the unit interrupted.

Remove the note in the task "The interrupted unit's turn is considered spent for the combat round". Once the interrupting unit finishes his interrupt, the interrupted unit gets to complete his turn as if nothing had happened (if capable).

Change the line "Unintelligent animals never perform an interrupt" to read: "Unintelligent animals never perform an intelligent interrupt". An animal that by nature leaps at its prey will interrupt by jumping at a man, even though that man is fully protected by combat armor. An animal that by nature flees at loud noises will interrupt to run away from a defenseless human who is yelling at the top of his lungs.

Page 68, Interrupt Restrictions (revision): Strike the rule that states, "a unit cannot interrupt the turn of another on his own side". The idea with this rule was to avoid a complicated chain of interrupts. However, sometimes a character on your own side may do something stupid, and it makes sense to be able to interrupt to either help him out or to try and stop him. The rule of "no more than one interrupt per side" serves quite well to keep interrupts in check.

Page 69, right column, Hand-to-Hand Combat Tasks: If the referee prefers, the two hand-to-hand combat tasks may be combined into this single task:

To hit another unit with a hand-to-hand attack:
Routine, Off=Weapon skill, Str; Def=Weapon skill, Weapon Def (confrontation)
Referee: If the attacker is unskilled, increase the difficulty of this task by one level; if the defender is unskilled, decrease the difficulty of this task by one level.

The defender may use his weapon (whatever weapon he currently has) for defense. Note that the defender may later conduct a hand-to-hand attack with his weapon if he has not yet taken his turn. The defender may attempt to preempt the attack by interrupting the attacker (NOTE: Use Dex in place of movement speed as the DM when interrupting a hand-to-hand attack in this manner). The defender may not attempt to interrupt anyone other than the attacker.

Failure means defender blocked or avoided the attack.

Page 68, right column, Fire Control (clarification): The table below simplifies the Movement DM rule:

MOVEMENT DM GUIDE
(% OF TARGET SPEED)

——————— Range Bands ———————

C/S	M	L	VL	D	VD+
100	50	25	10	5	—

Page 70, left column, Hand-to-Hand Interrupts (clarification): A unit undergoing a hand-to-hand attack can try to interrupt the attacker; in this case, use the interrupting unit's Dex as the DM in place of movement speed. In effect, two units locked in hand-to-hand combat may interrupt each other, but no other units.

Page 70, Penetration and Damage (clarification): In all combat computations, drop fractions. A penetration of 3 reduced in half becomes 1. A damage of 0.3 becomes 0.

Page 70, left column, Penetration and Attenuation (clarification): An attenuation of 2 means that starting with *short range*, the penetration stays the same for two range bands (short and medium in this case). So the halving takes place at *long range*, not medium range.

To better explain and simplify the attenuation rules in the **Players' Manual**, the following table is provided:

PENETRATION/ATTENUATION GUIDE (%)

———————————————— Range Bands ————————————————

Atten	C/S	M	L	VL	D	VD	RG CN	PL	FO	XO IP	SY SS ST	IS
/1	100	50	25	10	0	0	0	0	0	0	0	0
/2	100	100	50	50	25	25	10	0	0	0	0	0
/3	100	100	100	50	50	50	25	25	10	10	0	0
/4	100	100	100	100	50	50	50	25	25	25	10	10
/5	100	100	100	100	100	50	50	50	50	25	25	10
/6	100	100	100	100	100	100	50	50	50	50	25	25

Page 70, right column, Penetration (clarification): A weapon with a penetration of 0 is only effective against unarmored characters or animals. In this case, the weapon penetration equals the target armor value (both are 0). By default, a successful hit gives a *low penetration* result, so the weapon inflicts 50% damage.

If the target has an armor value of 1+, a penetration 0 weapon rarely does any damage. In this case, the weapon gets a *zero penetration* result, giving just 10% damage. If a target is completely enclosed in armor, and if the penetration is less than one-tenth of the target's "lightest" armor value, ignore exceptional success. Your hit cannot do any damage to the target, regardless of the type of attack (hand-to-hand, direct, or indirect fire). (This prevents a small animal attacking with just its teeth from knocking out an opponent in battle dress.)

What is perhaps not so obvious is what a weapon with a penetration value of 1 or more will do against a target with an armor value of 0. In this case, no matter what the weapon's penetration is, it always gets a *high penetration* result—which means it inflicts 100% damage.

The table below clarifies the relationship between penetration and damage:

PENETRATION AND DAMAGE (%)

Pen vs Armor*	Pen Type	+0	+1	+2	+4	+8
		———	——	Level of Success	———	
Pen < Armor	Zero	ne**	ne**	1pt**	2pt**	4pt**
Pen ≥ Armor	Low	25	50	100	200	400
Pen ≥ Armor x2	High	50	100	200	400	800

*Pinpoint hit or target under cover, use armor +2
**ne=no effect; pt=points of hit damage, no matter what the weapon damage.
Vehicles and robots take 10% of regular weapon damage as superstructure hit.

Page 71, Damage to Vehicles and Robots (addition): All explosive rounds which penetrate a vehicle's hull also cause crew hits to all crew members in the danger space of the explosion (at half the penetration value of the explosive round).

Page 72, Weapon Enhancements (addition): A character who remains stationary for the combat round and can brace against something may use the Gyrostable difficulty profile when firing his weapon.

Page 72, Line of Sight, Obstructions, Cover and Sighting (clarifications and additions): The following rules more clearly explain line of sight, obstruction, cover and spotting.

LINE OF SIGHT: INDOOR COVER

Indoors, three main types of cover are available: corners, consoles (or furniture) and machinery.

Corners: Doorways and bends in corridors constitute corners for the purpose of determining cover. It is, of course, possible to use such obstructions to interrupt the line of sight completely, and thus to be considered *hidden*.

A character behind such a corner may, however, lean out from behind it and fire. For targeting purposes, the character is considered to be *under cover but visible* in the square into which he is leaning.

Consoles (or Furniture): Units may crouch behind consoles and thus be counted as *hidden* (unable to fire or be fired upon).

Alternatively, they may partially expose themselves and fire (and be fired at), in which case they are considered to be *under cover but visible* for any fire directed at them.

Machinery: A unit adjacent to machinery may fire through it and be fired upon through it.

The unit adjacent to the machinery square is considered to be *under cover but visible* unless the firing unit is also adjacent to the same machinery square - in which case, neither is considered to be under cover.

If neither the firing unit nor the target unit are adjacent to the machinery square through which a line of sight would pass, the machinery square becomes an *obstruction*, and the line of sight may not pass through it.

LINE OF SIGHT: ILLUMINATION AND DARKNESS

Combat generally takes place in an indoor or outdoor location that is well lit. When combat takes place in darkness, vision is impaired.

Characters or robots may turn off inside lights using switches placed on walls or bulkheads near portals. The referee may specify that certain areas are in darkness because of power or system failure.

Combat outdoors at night also takes place in darkness.

Depending on the amount of background light available, the referee must decide whether the darkness is partial or total (partial darkness is more common). When an area is in darkness, use the visibility and spotting rules.

When in darkness, increase the difficulty of all "to hit" and spotting tasks by one level.

Darkness does not apply if the weapon, character, robot or vehicle has vision enhancement devices.

LINE OF SIGHT, VISIBILITY AND SPOTTING

Basic combat provides some simple visibility and spotting rules in the form of the cover status: *under cover but visible* and *hidden*. These rules introduce a new type of cover status: *under cover, not visible*. This cover status means you can see the enemy, but he can't see you.

At the ground scale covered in most outdoor combat sessions, few playing areas cover an area more than several hundred meters, which is well within normal visibility ranges. As a result, the primary limitation on line of sight which provides for an under cover, not visible status is target concealment.

The indoor visibility is generally a problem only when darkness (either partial or total) exists.

The following discussion further defines how light of sight works.

Units: Characters, animals, robots and ground vehicles do not block line of sight.

Hills: Hills block the line of sight.

Vegetation: Trees block the line of sight, with certain modifications. Units on the ground (or flying nap-of-earth) cannot see through dense trees, but can see through up to 50 meters of sparse trees (to medium range).

Tree-covered areas also affect observation from above.

In dense trees, the sky is considered entirely blocked by branches, leaves or the equivalent; thus units in dense trees may not see or be seen if the line of sight passes through this canopy.

In sparse tree areas, this canopy is broken; a vehicle in the air may see through the canopy (and be seen) for a radius on the ground equal to 20% of the vehicle's altitude above the ground; for example, a vehicle at 250 meters altitude can see (and be seen by) a unit on the ground up to 50 meters away from the point directly below the vehicle.

Trees vary in height, but average about 10 to 30 meters; the leaf canopy may begin at varying heights, but should average half the height of the trees.

Undergrowth has no effect on the line of sight.

Buildings: Buildings block the line of sight. Units in buildings who are not on the ground floor can see units not adjacent to lower obstacles. Buildings are 4 meters tall per story.

Smoke Screens: The line of sight terminates at a smoke screen. Smoke screens are 15 meters high.

Under Cover, Not Visible (Concealed): Terrain features which do not block the line of sight may make a unit harder to see. Characters, animals or robots are concealed if they are in an area of trees or undergrowth. Vehicles are concealed in areas which contain both sparse trees and any kind of undergrowth (dense or sparse).

Units may also be deliberately camouflaged. If a unit is concealed at the beginning of the combat session, the referee may allow it to be counted as camouflaged. If so, it remains camouflaged until it moves for the first time.

In partial darkness, all units beyond medium range are considered concealed.

In total darkness, all units beyond short range are considered concealed.

Hidden Units: In some terrain, units may choose to be hidden. This choice is possible for characters, animals or robots in buildings, gullies, field fortifications, directly behind walls, or just over the crest of a hill. Vehicles can choose to be hidden if directly behind hillcrests or stationary in buildings.

The decision to be hidden is made at the beginning of a unit's turn and applies until the next combat round. Hiding units may not be spotted; if already spotted they remain spotted as long as they do not move - hiding units may not spot, fire or perform any other activities requiring observation of the area; they are "keeping their heads down."

Spotting Concealed Units: Units which have not been spotted by the enemy may be kept off the playing surface; their positions (and movements) should be recorded for later verification if a dispute arises. This may be done on a small map of the area, with written descriptions or by using small cards or markers on the playing surface in place of the unit. In the last case, also use several dummy markers to confuse the enemy.

To spot a concealed unit:

Difficult, Recon, 1 combat round (absolute)

Referee: Make one roll for each concealed unit, applying the best Recon skill from among any of the opposing units with a potential line of sight to the concealed unit.

Decrease the difficulty of this task by one level if:

- The concealed unit is moving (a pop-up doesn't count as movement in this case);
- The concealed unit fired a high-signature weapon. In darkness, this applies to a moderate signature as well.

Increase the difficulty of this task by one level if:

- The concealed unit is camouflaged;
- The range from the potential spotting unit(s) to the concealed unit is beyond Very Long range. Decrease this to medium range for partial darkness, and to short range for total darkness.
- For darkness, increase the difficulty of all spotting tasks by one level.

LINE OF SIGHT: SMOKE

Line of sight terminates upon encountering a smoke screen.

Some weapons are listed as having a smoke round available. All such rounds have a specific screen length given in the weapons table.

On the combat round of impact, one marker is placed on the playing surface in the square of impact. On the next combat round, a second marker is placed in a square adjacent to and downwind of the first marker (use the scatter procedure if the wind direction is unknown).

Once the screen has reached its screen length, the round ceases to generate smoke and the screen begins to dissipate. On the next combat round, remove one marker from the upwind end of the screen. On the next combat round, remove another marker, and so on. Continue this procedure until the smoke screen is gone.

Fire: Brush fires and structural fires both produce smoke. In both cases, the length of the smoke screen is 50 meters.

As with a smoke round, one smoke marker is added to the screen downwind of the fire each turn until the maximum length is reached. Unlike a smoke round, the screen is not removed after it reaches its maximum length, but rather remains in place until the fire stops burning.

Page 72, Line of Fire (addition): The target closest to the firing unit and in the line of fire is attacked first, *ignoring all friendly units*. However, if exceptional failure occurs when rolling for a hit, then friendly units are included when determining the closest target. (In other words, don't get exceptional failure or you may hit some of your own guys who happen to be in the line of fire!)

Page 72, Vehicle Hit Value (addition): For purposes of personal combat only, multiply a vehicle's hit value by 10 before starting the combat session. For example, a ground car lists hull hits of 2/5. Its actual hit value in personal combat is 20/50 (multiplied by 10). In a similar manner, its locomotion and power plant hits are each 10/20 (1/2 multiplied by 10). Use the unmodified values for starship combat rather than personal combat (see the errata entry for **Referee's Manual** page 94, Power Plant-n).

Page 72 and 73, Danger Space, Group Hits and Autofire (clarifications and additions): The following rules more clearly explain danger space, group hits and autofire.

As the referee, when faced with a potentially confusing combination fire attack, you will save yourself a lot of headaches if you *always* determine a *single primary target* before you begin resolving hits. Once the single primary target has been identified in a combination attack, it remains the primary target for the entire combination attack. If the firing unit wants a shifting primary target, then he is conducting rapid fire instead.

Once the single primary target has been selected, resolve a combination attack by starting with automatic fire hits. Automatic fire weapons give the firing unit additional "bonus attacks". Roll a "to hit" task on the primary target as normal, then roll an identical "to hit" task for each adjacent target (player's choice), up to the number of autofire targets possible. The firing unit has considerable freedom when specifying which adjacent targets—the attacking unit may actually apply *all* of its autofire attacks to the primary target if it wants to, *as long as* no other potential targets exist along the line of fire in the same range band. In any case, each autofire attack requires its own roll.

The line of fire rule also comes into play here. A good way to use the line of fire rule with autofire is to make the closest target in the line of fire the *default* primary target, with all other targets in the line of fire becoming adjacent targets. Any leftover autofire attacks (after applying at least one hit roll to each target in the line of fire) can be applied to laterally adjacent targets. In any event, leftover attacks should prefer the primary target for remaining unused attacks.

This leads us to a concept of "preferred target precedence". A preferred target should take more hits than any other target. The preferred target precedence for autofire is:

1.   Primary target;
2.   Targets adjacent to the primary target and in the line of fire;
3.   Targets adjacent to the primary target and *not* in the line of fire.

Put another way, the primary target (item 1) should never take fewer autofire hits than adjacent targets in the line of fire (item 2), and targets in the line of fire should never take fewer autofire hits than targets not in the line of fire (item 3). If the attacker wishes to violate this precedence, require exceptional success for each "to hit" roll which violates it. The hit reverts to standard precedence if exceptional success is not achieved.

Danger space represents how much the weapon "spatters" or "sprays" when it hits; that is, what collateral damage the weapon does to nearby targets when it hits the primary target. These collateral hits are known as *group hits*. All units in a weapon's danger space are subject to group hits. Danger space is always expressed in meters.

To determine the danger space in squares, divide by the distance scale being used and round 0.5+ fractions up. The result indicates the number of squares (including the primary target square) to which the danger space extends. The danger space extends in all directions from the primary target square.
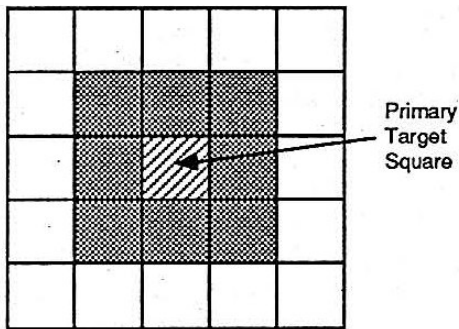
ARL Danger space of 2 squares at 1.5 meter scale

Pages 72 and 73, Danger Space (omission): The danger space for flechette rounds applies only along the line of fire and is not circular like the danger space for all other rounds.

Page 73, Pinpoint Location (suggestion): Some players have reported abuses with the pinpoint hit location rule as written, since specifying such a shot reduces the target's armor rating by one-half. An easy fix is to change the rule to increase the task in difficulty one level when a pinpoint location is specified, rather than requiring exceptional success. This makes a pinpoint location shot work the same as a shot at a small target (page 69). Increasing the difficulty for a pinpoint location hit also works nicely because if the player wants to take great care in making the shot, he can try for a cautious attempt. Many players will feel the increase in difficulty is not worth the lowered armor rating, which ends the abuse problem.

Page 73, Hand-Throwing Grenades (omission): Hand-throwing a grenade at a target is a special situation, and has its own special task:

To hit a target square with a hand-thrown grenade:
[difficulty], Str, Dex, absolute: 1 cbt rnd (fateful)
Referee: Use the direct fire thrown difficulty profile when hand-throwing a grenade at a square. If the task fails, the grenade fails to hit its intended square, so it scatters. Contrary to normal indirect fire, a hand-thrown grenade can scatter back into the thrower's square.

If the grenade hits an obstruction (such as a wall, closed portal, or fence), it stops and scatters no further.

The final location of the grenade is where it explodes: it explodes at the end of the thrower's turn.

Scatter: If indirect fire fails to hit its intended target, it scatters randomly. To determine direction of scatter, roll 1D and consult the following diagram:
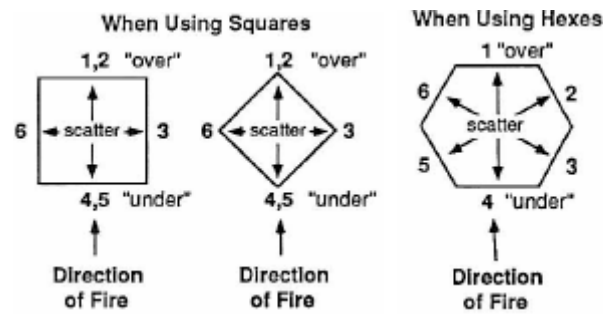
The distance of the scatter depends on the mishap level—with Forward Obs skill (or Strength plus Dexterity in the case of hand-thrown grenades) usable as a special minus DM on the mishap table in this case:
    Superficial: 1D% of the distance from the attacker to target (minimum 1 square).
    Minor: 2D% of the distance from attacker to target (minimum 2 squares).
    Major: 3D% of the distance from attacker to target (minimum 3 squares).
    Note: Indirect fire (exception: hand-thrown grenades) can never scatter into the firing weapon's square. If it does, roll for a different scatter direction.

Page 74, Personal Armor table (correction and additions): The following values should be corrected and added on the Personal Armor Table:

Type	Value
Leather	(1)
Chainmail	2
Plate	3
Clamshell	8
Reflec	[10]

Page 74, Hand-to-Hand Weapons table (omission): Add "Foot/Kick, Pen 1, Block 1, Damage 2".
Page 74, Large Blades table (omission): The block missing values are: Sword 3, Cutlass 2, Broadsword 2.
Page 74, Polearms table (correction): Change damage values as: Bayonet 2, Spear 3.
Page 75, Treatment of Injured or Sick Characters (correction and clarification): The injured character must be given initial diagnosis and treatment according to the following table:

INITIAL DIAGNOSIS AND TREATMENT

Wound Level	Must diagnose in next…	If not…	Comments
Superficial	2D hours	2D mishap (infection)	Don't reroll if not treated
Minor	1Dx10 minutes	2D mishap (trauma)*	Unconscious for 3D minutes
Major	2D minutes	3D mishap (blood loss)*	Unconscious for 1D hours
Destroyed	1D minutes	death†	

*If successful initial diagnosis/treatment is not received in the required time and the character is still alive, reroll for mishap every hour until at least initial treatment is received, or the character dies.

†If a TL12+ medical kit is used and the initial diagnosis/treatment is successful, the character may be kept barely alive long enough to be put in TL9+ medical facilities (or low berth) if this is done within 1D days. If the character is in low berth, or he is in medical facilities of at least TL9, his characteristics remain at zero, and he is vulnerable to any influence that interferes with his life support (for example, a severe jolt, depletion of supplies, and so on). As long as the character has constant medical attention, and his life support is not threatened, he may be sustained in this condition up to 2D months.

To perform initial diagnosis/treatment for an injury:

Routine, Medical, Int, 2 min (uncertain)

Referee: This task assumes external injuries (damage to a limb or the head). If the injuries are internal (upper or lower torso organs), double the time increment. If **Some Truth**, treatment may be made, but may be less than optimum: secretly roll 2D on the Mishap table—on a major mishap, apply 1D points of additional damage.

If a TL7—11 medical kit is used, reduce the time increment on this task to 30 sec for external injuries and 1 min for internal injuries.

If a TL12+ medical kit is used, reduce the time increment on this task to *instant*.

If this task is performed in the field (first aid), increase the difficulty one level.

For superficial wounds, final treatment is required only when an infection mishap occurs.

To perform final treatment:

[treatment difficulty], Medical, Int, 10 min

Referee: The difficulty level of this task depends upon the amount of damage the patient has sustained; consult the table below.

Treatment		*Surgery*	*Inactivity*	*Healing Rate*
Wound Level	*Difficulty*	*Req?*	*Period*	*After Inactivity Period*
Superficial	Simple	No	None	+1 per day for each char
Minor	Routine	Maybe*	2D days	+1 per day for single char
Major	Difficult	Yes	1Dx10 days	+1 per day for single char
Destroyed	Formidable	Yes†	Until healed†	+1 per month for single char†

*Surgery is required for all minor gunshot, fragment, blade, and puncture wounds. It is not needed for minor laser and energy weapon burns.

†To recover, a "dead" character must receive final treatment in a medical facility of at least TL13. If successful treatment is not received within 2D months (as indicated above), the character dies. A special DM of +1 per TL over 13 is allowed on the final treatment task. If the treatment is successful, the character is comatose, with all level 0 characteristics increased to 1.

On damage which requires surgery, a character with at least Medical-3 and Dex 8+ is required, otherwise increase the task difficulty by one level.

The task duration determines how much time that the attending physician must spend on treatment; a period of inactivity/healing is usually required for recovery.

If a superficial or minor mishap occurs, apply additional damage to the character.

If a major or destroyed mishap occurs, the character may take permanent damage; reroll 2D on the Mishap table to determine the amount of permanent damage taken by the character. The referee must determine how the damage is to be applied: all characteristics are eligible for receiving damage.

HEALING

The healing varies depending upon the level of wounding.

Superficial: Normal activity can be resumed after treatment.

Healing Rate: +1 per day for each injured characteristic.

Cost: Roll 3D for the cost in credits of miscellaneous medical items.

Minor: The injured character must spend 2D days of total inactivity. The character may be moved by others, but must remain in bed. During the inactive period, all characteristics will be halfway between their wounded level and the original; at the end of the period, final healing will take place.

Healing Rate: +1 per day for 1 characteristic (player's choice).

Cost: Non-surgical, Cr10x2D; surgical, Cr500x1D. If inactivity is in a hospital, Cr500 per day for 1D days, Cr100 per day thereafter. Field care is Cr50 per day.

Major: The injured character must spend 1Dx10 days of total inactivity. The character may not be moved by others, and must remain in bed. During the inactive period, all characteristics will be halfway between their wounded level and the original; at the end of the period, final healing will take place.

Healing Rate: +1 per day for 1 characteristic (player's choice).

Cost: Surgery, Cr1,000x1D. If inactivity is in a hospital, Cr500 per day for 1D days, Cr100 per day thereafter. Field care is Cr50 per day.

Destroyed: When any one characteristic reaches 4 (or its original level, if less), the character regains consciousness. When two of the three characteristics reach their original level, no more healing occurs. The character must remain inactive until healing ends. The character may be initially treated on a TL13+ world and then removed to a lower TL world for healing. The character may resume limited non-physical activity as soon as all characteristics have reached 4 (or full level if less).

Healing Rate: The character must decide which characteristic to restore. Roll 2D for 9+, with a DM of +1 per facility TL over 12. If successful, add 1 to the characteristic for the month.

Cost: Low berth costs, Cr1,000 per week. Treatment, Cr250,000. Healing in a hospital (required), Cr150,000 per month.

Page 76, Slug Throwers (correction): The following table is corrected (corrections are highlighted):

Slug Thrower	Ammo Notes	Rds	Pen/ Atten	Dmg	Max Range	Autofire Targets	Danger Space	Signature	Recoil	Difficulty As
Auto Snub Pistol (10mm)	HE	20	1/–	4	Medium	—	1.5	Med	Low/R	Handgun
	HEAP	20	6/–	4	Medium	—	1.5	Med	Low/R	Handgun
	tranq	20	1/–	1	Medium	—	1.5	Med	Low/R	Handgun
	gas	20	—	1	Medium	—	1.5	Med	Low/R	Handgun
Rifle, Bolt Action (7mm)	—	6	3/2	3	V Long	—	—	Med	Med	Rifle
Rifle (7mm)	—	20	3/2	3	V Long	—	—	Med	Med/R	Rifle
Rifle (9mm)	—	20	4/2	3	V Long	—	—	Med	Med/R	Rifle
	tranq	20	1/–	1	V Long	—	—	Med	Med/R	Rifle
Hunting Rifle (13mm)	—	2	5/2	4	Long	—	—	Hi	Hi	Rifle
	tranq	2	3/–	2	Long	—	—	Hi	Hi	Rifle
Gauss Rifle (4mm)	—	40	7/4	4	Distant	3	—	Low	Low/R	Rifle**
	tranq	40	2/–	1	Distant	3	—	Low	Low/R	Rifle**
Shotgun	pellets	10	1/1	4	Medium	—	1.5	Hi	Med	Rifle
	bullets	10	3/1	4	Medium	—	1.5	Hi	Med	Rifle
	tranq	10	1/–	1	Medium	—	1.5	Hi	Med	Rifle
	gas	10	—	1	Medium	—	3	Hi	Med	Rifle
Autoshotgun	pellets	20	1/1	4	Medium	2	1.5	Hi	Med	Rifle
	bullets	20	3/1	4	Medium	2	1.5	Hi	Med	Rifle
	tranq	20	1/–	1	Medium	2	1.5	Hi	Med	Rifle
	gas	20	—	1	Medium	2	3	Hi	Med	Rifle
Assault Rifle (5mm)	—	30	2/2	3	V Long	2	—	Med	Med	Rifle
Assault Rifle (7mm)	—	30	3/2	3	V Long	2	—	Med	Med	Rifle
Accelerator Rifle (6mm)	—	15	3/–	3	Medium	2	—	Med	Low/R	Rifle
Adv Combat Rifle (7mm)	—	20	3/3	3	V Long	2	—	Med	Med	Rifle**
	DS	20	4/3	3	V Long	2	1.5	Med	Med	Rifle**
	tranq	20	2/–	1	V Long	2	—	Med	Med	Rifle**
Adv Combat Rifle (9mm)	—	20	4/3	3	V Long	2	—	Med	Med	Rifle**
	DS	20	6/3	3	V Long	2	1.5	Med	Med	Rifle**
	HE	20	3/3	3	V Long	2	1.5	Med	Med	Rifle**
	tranq	20	3/–	1	V Long	2	—	Med	Med	Rifle**
Light Assault Gun	HE	5	3/1	4	V Long	—	1.5	Med	Hi	Rifle
	KEAP	5	8/3	4	V Long	—	1.5	Med	Hi	Rifle
	flech	5	2/3	2	Long	—	30	Med	Hi	Rifle
	tranq	5	2/–	1	Long	—	30	Med	Hi	Rifle

Page 76, 7mm Bolt Action Rifle (addition): The 7mm Bolt Action Rifle listed in this errata is available at TL 4 and costs Cr100. In all other respects, it is identical to the standard 7mm rifle listed on page 75 of the **Imperial Encyclopedia**.

Page 77, Personal Energy Weapons (addition): The flamethrower was left off the original charts:

Weapon	Ammo Notes	Rds	Pen/ Atten	Dmg	Max Range	Danger Space	Signature	Recoil	Difficulty As
Flamethrower	fire	5	0	10	Medium	2	Hi	Medium	Rifle

Page 78, Grenade Launchers (correction): The HE and HEAP pen/atten values were accidentally switched on all the grenade launchers. HEAP rounds are designed to pierce armor and thus have a greater penetration than HE rounds.

Page 81, Mines (addition): Add the chart for the mines detailed in the **Imperial Encyclopedia**:

Weapon	Ammo Notes	Pen/ Atten	Dmg	Danger Space	Signature
APERS mine	HE	TL+2	8	1	Med
Bounding APERS	HE	TL+2	8	6	Med
Directional mine	Flech	TL+2/1	8	6/50	Hi
Antitank mine	HEAP	TLx3	40	30	Hi
Chemical mine	*	0	*	18	Med
Trip-wire mine	Signal	0	1	—	Hi
	Flare	0	1	(50)	Hi
	HE	TL+2	7	3	Med

*see details in **Imperial Encyclopedia** errata.

Page 87, Corridor Sidebar (correction): Varian is incorrectly identified as the acting Emperor. Varian's younger brother Lucan is in fact the acting Emperor; Varian lost his life in the ensuing struggle following Emperor Strephon's assassination.

Page 90, Explosive Decompression and Vacc Suits (correction): The task for applying patches to breached Vacc Suits, Battle Dress or Combat Armor should be:

To apply a patch to breached vacc suits, battle dress or combat armor:
Routine, Vacc Suit or Battle Dress, Dex, 2 sec
Referee: Since a combat round is only six seconds long, be sure to roll for the time duration (it could take more than one combat round to get the suit patched). The suit occupant may try this task if still conscious (however, see Panic, below).

If the suit has not been patched after the first combat round, apply one hit point of damage per round to the suit occupant until the suit is patched. Do not apply any damage on the round the suit is patched.

Panic (optional): When a breach occurs, have the suit occupant first roll a determination task to keep from panicking. If able to avoid panicking, the suit occupant can try to patch his own breached suit.

Page 93, Armor Values (correction): The values for starships are incorrect. The correct values are: Starship Interior Bulkhead, 30; Starship Exterior Hull, 40.

Page 99, Clairvoyance, Direction (correction): The task for performing a clairvoyant Direction is incorrect:

To perform a clairvoyant Direction:
Simple, Clairvoyance, Int
Referee: The Psi strength cost is 0 + range.

TAS FORM 2, Homeworld Summary, Starport column (correction): Starport D/F should be C/F.

TAS FORM 2, Homeworld Summary, Law Level column (correction): Add a block below "High" labeled "Extreme."

REFEREE'S MANUAL

The following corrections apply to the **Referee's Manual**.

Page 11, 13, right column, Universal Task Profile Format (correction): The sample task is incorrect. The correct task should be:

To diagnose damage done to an air/raft:
Routine, Gravitics, Grav Vehicle, 15 min (uncertain)

Page 16, Universal World Profile Diagram (correction): The Gas Giants and Planetoid Belts labels have been switched. Planetoid Belts should be first, then Gas Giants. In the example shown, Roup has 2 Planetoid Belts and 3 Gas Giants.

Page 22, World Size (correction): Column headings should be: General Description, Min Diameter, Max Diameter.

Page 22, World Atmosphere (correction): Column headings should be: General Description, Min Pressure, Max Pressure.

Page 22, World Law Level (correction): Code 6 should have a description of "Moderate law (all firearms except shotguns prohibited).

Page 23, World Physical Data, Code Hydrographics (correction): Second entry Desert (code 1) should be Dry World.

Page 26, Step 4, Primary Star Type and Size (correction and addenda): Change all occurrences of star sizes VI and D to V.

Page 26, Step 5, Decimal Classification (correction, addition and addenda): Remove the existing item 6 in Step 5, then add additional items:

6. Star types A, F and G are extremely rare with star sizes II and III; change star size to V.
7. Star types M4V through M9V cannot have habitable worlds; subtract 6 from the decimal classification.
8. If two or more stars in the same system are size "D", change them all to size "V".
9. Unless the primary star is size II, III, or IV, change remaining companion size "D" stars to size "V".

Page 26, Step 6, Companion Star Type and Size (correction and addenda): Change all occurrences of star size VI to V.

Page 26, Step 9, Far Orbit (correction): Rather than determining the companion star's orbit distance in AU, roll 1D+13 to determine the companion star's orbit number (see the Orbital Distances Table, below).

Page 26, Step 10, Additional Stars (addition): When returning to step 3 from step 10, apply DM -1 to the die roll on the System Nature Table.

Page 27, Step 15, Orbit Zones for Star Size Ib (correction): Orbit 11 for K5 and M0 star types should be "H".

Page 27, right column, Orbit Zones for Star Size III, IV, and V (correction): Remove the entries from all three tables for star types B0 and B5.

Page 28, Step 22, Gas Giants (correction): Should be labeled Gas Giants, not Empty Orbits.

Page 28, Step 23, 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 28, Step 35, Satellite Size (correction): For Worlds, satellite size formula should be World Size–1D.

Page 29, Orbital Distances Table (omission): The Orbital Distances Table (for reference only, converts an orbital number to an actual orbit distance) was inadvertently omitted:

ORBITAL DISTANCES

Orbit	Aus	Million Kilometers
0	0.2	29.9
1	0.4	59.8
2	0.7	104.7
3	1.0	149.6
4	1.6	239.3
5	2.8	418.9
6	5.2	777.9
7	10.0	1495
8	19.6	2932
9	38.8	5804
10	77.2	11548
11	154.0	23038
12	307.6	46016
13	614.8	91972
14	1229.2	183885
15	2548.0	367711
16	4915.6	735363
17	9830.8	1470666
18	19661.2	2941274
19	39322.0	5882488

Page 30, Animal Weaponry (addition): Nowhere is the "to hit" task for an animal given. In hand-to-hand combat, use the "to hit" task on p. 69 of the **Players' Manual**, with the following modifications:

To determine an animal's Strength DM, add the two "Hits" numbers together from the animal encounter information, and divide by 5 (drop fractions). For the Dexterity DM, use the animal's speed directly. Then resolve the encounter using the standard tasks.

Page 34, Step 1, World Size and Atmosphere (correction): The Basic World Data Atmosphere column is incorrect. Correct values for this column are:

UWP	Atmosphere
0	Vacuum
1	Vacuum
2	Vacuum
3	Vacuum
4	Thin
5	Thin
6	Standard
7	Standard
8	Dense
9	Dense
A+	Exotic

Page 35, Step 7, Animal Weight Effects (correction): Hits is a two number figure separated by a "/"; the formula for the second number can be found in the "Wound" column, which should not be there.

Page 35, Step 10, Animal Behavior (correction): Animal Behaviors, Omnivore column headings should be To Attack, To Flee, Typical Speed. These apply to Omnivores, Carnivores, and Scavengers.

Page 42, Step 8, Legal Encounter (addition): If legal encounter, go to step 10d.

Page 42, Step 9, Random Encounters (addition): If random, go to step 10d.

Page 43, Step 10d, Encounter Range (addition): After determining encounter range, if the Encounter includes an NPC, go to step 11.

Page 45, left column, Interpersonal Bribery (correction): Soc 2 should be Soc x Soc (that is, Social Standing squared).

Page 50, Step 5, Freight and Cargo (correction and clarification): The sentence "If the goods are cargo (carried for a fee of Cr 1,000 per ton..." should read "If the goods are *freight* (carried for a fee of Cr 1,000 per ton..." Lot size is in displacement tons. To convert to kiloliters, multiply by 13.5. Or, for lot size into kiloliters directly: Major Cargos: 150+(1Dx10). Minor Cargos: 80+(1Dx10). Incidental Cargos: 1Dx10.

From the note under Step 3, Freight and Cargo are determined separately in Step 5.

Page 50, Step 6, Sourceworld Trade Classifications (correction): Trade Classifications. FI line should be Atmos A+, Hydro 1+, Size entry should be "—".

Page 51, Step 9, Nature of Cargo and Freight (omission): For worlds which have no Trade Classifications, use table 9f.

Page 53, Step 1, Cargo Price (addition): Selling a speculative cargo should no longer be automatic. Before using Step 1, Cargo Price, the seller must first find a buyer. To do this, use the following task:

To find a buyer for speculative cargo:
[varies], Broker, Admin or Streetwise, [varies]
[High Pop (9+) = Simple, 4 hours]; [Mod Pop (4+) = Routine, 1 day]; [Lo Pop (3–) = Difficult, 2 days]
Referee: For manufactured hardware, increase the difficulty level by one for each difference in the tech code (Early Stellar to Average Stellar is a difference of one, and so on). For novelty items, decrease the task difficulty one level for each difference in tech code.

If the world's Law Level is Low Law or less (3–), a fumble results in an automatic 3D mishap. At High Law, (8+), make the task hazardous (2D mishap), and at Extreme Law (A+), make the task hazardous and fateful (3D mishap).

In most cases, do not allow the difficulty to be increased beyond Formidable, unless the world has a Population of 0 (0-9 inhabitants).

Page 53, Step 3, Tech Level Effects (clarification): The price formula for cargo should be calculated as:

$P = p + [p \times (St – Dt)]$, where:
P = final price
p = adjusted price so far
St = source world TL x 0.10
Dt = destination world TL x 0.10

Page 53, 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 hardware, always use tech level difference as a minus (–).
- Manufactured nonhardware, use the tech level effects as given.
- Information, use the tech level effects as given.
- Novelty, always use the tech level difference as a plus (+).

Page 53, Step 5, Negotiation (addition): Add to Negotiation: Passive Uncooperation, +1000; Active Uncooperation, goods withdrawn from sale. This adds some detrimental effects to negotiation (the cargo purchaser's inability to drive a hard bargain).

Page 58, right column, Locomotion Section (correction and addenda): The following definitions apply to locomotion:

Suspension: What a craft "sits" on (rests on when grounded and stationary) and is propelled by. All craft that require locomotion require a suspension, which is what is installed in the chassis.

Transmission: The machinery used to transfer power from a craft's power plant to the craft's suspension. All craft that use contact-based locomotion require a transmission, which is generally installed in the chassis. Legged craft and ordinary legged robots can have their transmission installed externally (which also adds to their overall volume). Contoured and pseudo-biological legged robots must have their transmissions installed internally in their legs and chassis.

Suspensions use power from the power plant to propel the craft. Transmissions merely provide the linkages between the power plant and their corresponding contact-based suspensions; they do not use power themselves.

Page 58, right column, Locomotion Section, Contact-Based (clarification and addenda): The following clarifications will make the design of contact-based locomotion easier:

Legs (Ordinary Robots): Suspension: Each leg requires 5% of chassis volume; 8 or more legs always require 40% of the chassis volume. Transmission: One unit of transmission is required for each kilowatt of power plant output. The transmission volume is external to the chassis volume; divide the transmission volume by the number of legs, to determine the transmission volume for each individual leg.

Legs (Contoured and Pseudo-Biological Robots): Suspension: Each leg requires between 10% and 20% of chassis volume, with 15% as the average size. Transmission: One unit of transmission is required for each kilowatt of power plant output. The transmission volume is internal to the chassis volume; divide the transmission volume by 2 to determine the transmission volume for each individual leg.

Page 60, left column, Controls and Bridge Section (clarifications): There is no need to install basic life-support or extended life-support in the ship's fuel tanks. If you do install grav plates and/or inertial compensators, you need to install them in the entire hull volume. You need to install basic environment in the entire hull volume as well, including the fuel tanks. You need something to keep the fuel load at a constant temperature—plus when inspecting empty fuel tanks, lighting is a tremendous help.

Page 60, left column, Controls and Bridge Section, Panel Add-ons (clarification): Panel add-ons can be installed to augment a craft's control panel needs. The power and volume requirements of an add-on are usually superior to that of straight control panel units for a given CP value. In all cases, a control panel add-on can act as a direct replacement for weaker control panel units.

However, as a rule of thumb, do not install any more control panel add-ons than you expect to have crewmembers. It is a bit ridiculous to install 10 large holodisplays when you only expect to have one crewmember.

Also, holodynamic linked and holographic linked panel units refer to the same type of panel unit.

Page 60, right column, Accomodations Section, Staterooms (correction and clarification): Ignore the values listed for dual occupancy staterooms; use the values in the Extended Accommodations table on page 82.

The small stateroom as given in the Accomodations table is a "bare-bones" accommodation for one person—little more than a bed and a fresher. The "full" stateroom is a more deluxe accommodation, with a mini-kitchen, mini-lounge (table and nice couch or chairs), and so on. Thus the significant price difference. Notice that a half-stateroom does not equal a small stateroom. The two are different, which is intentional. The small stateroom equates to the small craft stateroom in **High Guard**.

When allocating staterooms to a design, mix and match the two stateroom types to get whatever level of accommodation luxury you are designing. If you run into problems with the full stateroom approach, consider double occupancy for the low-ranking crewmembers. If on a really low budget, consider a small stateroom, but remember that two small staterooms require more power than one stateroom with double occupancy. As a last resort, double occupancy in a small stateroom can be used to solve problems; simply assume that the two crew members work on different shifts.

Page 62, Hull Design (clarification): To determine the values for a non-standard hull size, just extrapolate the values from the *closest* hull size using the following formula to determine the modification factor:

$F = N \div B$, where:
F = the factor to apply to the base hull value, and
N = the desired non-standard hull size, and
B = the closest standard hull size to use as a base.

For example, if a 440 UCP hull size is desired, simply multiply the values for a 400 UCP hull by a factor of 1.1 (440/ 400). If, on the other hand, a 460 UCP hull is desired, then multiply the values for a 500 UCP hull by a factor of 0.92 (460/ 500).

Page 62, Step 2, Select Vehicle Chassis (correction): In the Vehicle Chassis Table, UCP 0.050 should be 0.500; UCP 0.075 should be 0.750. The weight entry for UCP 0.037 is incorrect. It should be 0.050, not 0.075.

Page 62, Step 3, Select Small Craft Hull (correction): The price column is in thousands of credits on the Small Craft Hull Table.

Page 62, Step 4, Select Space Vessel Hull (correction): For UCP 75000, volume should be 1012500.

Page 63, Step 5, Craft Configuration and Streamlining (corrections and clarifications): Configuration 1 should be labeled Needle/Wedge. The Airframe column for Configuration 6, Dome/Disk should be x3.0, not x0.5. The Price Mod column for Configuration 7, Irregular should be x0.5, not x0.05. Here are the definitions for the various streamlined configurations:

Unstreamlined: No attempt has been made to streamline the hull. Many protrusions and irregularities exist which significantly increase the vessel's drag, making it difficult or impossible to operate the craft in an atmosphere at any high rate of speed. Unstreamlined craft cannot land on a world with an atmosphere of 2 or greater, and cannot skim gas giants for fuel.

Streamlined: Various cowlings and farings have been added to the hull to streamline it for operation in an atmosphere, although the streamlining is less than that provided by an airframe. Without power, a streamlined craft drops like a rock.

Airframe: The hull has been designed for high performance in an atmosphere; an airframe generates its own lift in an atmosphere. An airframe craft can glide to a landing without power if necessary. In order to achieve such performance, exterior design has been a priority.

Page 63, Step 6, Planetoid Configurations (clarification): The armor value mass factor is in fact the armor value *mod* (refers to the Mod column on the Armor Table in Step 9).

Page 63, Step 11, Open Vehicle? (correction): The second and third sentences should read: If the vehicle has a chassis UCP of 0.2 or less, it cannot be enclosed; occupants must ride on its outside. If the chassis UCP is more than 0.2, the vehicle is enclosed unless selected otherwise.

Page 64, Step 1, Power Plants (corrections and clarifications): The table heading is misleading. Power Out, Weight and Price are per kiloliter of volume; Power Out, Weight and Price of each table entry are for 1 kiloliter of power plant volume. Volume column should be labeled Minimum Volume, the smallest volume to which the power plant may be built.

TL 12 Fusion Power Plant: Kl/Hour entry should be 0.003, not 0.005.
TL 17 Antimatter Power Plant: Kl/Year entry should be 250.0, not 25.0.

Further testing of vehicle designs using the hydrocarbon fueled power plants has revealed that they are too inefficient as given. More acceptable values are given below:

		--------------- *Per Kiloliter* ------------			*Minimum*		
TL	*Description*	*Power Out*	*Weight*	*Price*	*Volume*	*Kl/Hr*	*Fuel Type*
5	Internal Combustion	0.25	1	1000	0.005	0.030	Hydrocarbons
6	Improved Internal Comb	0.40	1	2000	0.001	0.025	Hydrocarbons
7	Gas Turbine	0.60	1	5000	0.005	0.040	Hydrocarbons
8	MHD Turbine	0.80	1	10000	0.001	0.035	Hydrocarbons

Antimatter power plants use fuel pods: a special self-contained fuel package that contains a measured quantity of antimatter enclosed in a strong artificial gravity "bottle". The bottle's gravity fields are maintained by an array of superbatteries. Fuel pods are the heart of an antimatter power plant, and they typically provide fuel for up to a year before needing replaced. Fuel pods also have a minimum size to which they may be built:

TL	*Min Vol (Kl)*
17	2.000
18	0.800
19	0.200
20	0.050
21	0.005

Antimatter power plant output increases dramatically as the ability to safely contain a progressively larger annihilation mass occurs. This means that a given fuel pod is "burned up" at a progressively faster rate, however.

Page 64, Step 1, Storage Batteries (addenda and correction): Divide the cost of all batteries by 100.

Page 64, Step 1, Fuel Cells (correction and clarification): On the Fuel Cells table, the headings for the two rightmost columns should be: *Price* and *Fuel Liters/Hour*. The minimum tech level for the fuel cells shown is TL10.

Page 64, Step 2, Scale Efficiency (correction): On the Small Plants Efficiency Decrease table, the Volume column entry for Turbines is missing. It should be 0.10-.

Page 65, Step 3, Jump Units Required (correction): The Jump-4 entry for a size of 75,000 is incorrect; it should be 3750, not 2750.

Page 65, Step 5, Maneuver Drive (clarification): An antigrav unit requires a gravity well to push against, so an antigrav maneuver drive is less efficient at 10 diameters and beyond. The effective maneuver number of the craft drops by 50% at 10 diameters and beyond; for example, a maneuver-2 drive drops to a maneuver-1, and a maneuver-1 drops to a maneuver-0.5. Thruster units do not suffer these effects.

Page 66, Steps 6 and 7, Suspension (clarification): Only vehicles require suspensions, not small craft or starships.

Page 66, Step 7, Contact-Based Suspension (correction and addenda): The table for contact-based suspensions is incorrect.

CONTACT-BASED SUSPENSIONS

| | ------------ Per kiloliter of suspension ------------ | | | Min |
Type	Power (kW)	Weight (kg)	Price (Cr)	Percent
Wheels	0.02	0.5	12	1.5
Tracks	0.03	1.5	25	2.0
Each Leg	0.04	1.0	35	5/10*

Minimum Percent: The minimum percent of chassis volume required depends on the suspension system. Greater volume reduces ground pressure and thus increases off-road speed.

For Wheels: 1.5 percent.

For Tracks: 2.0 percent.

For Ordinary Legs: 5 percent per leg; 8 or more legs always require 40% of the chassis volume. A minimum of two legs is required.

For Contoured/Pseudo-Biological Legs: 10 percent per leg (15 percent gives average-sized legs; the maximum is 20 percent, giving large legs). Two legs are required.

Contact-based suspensions also require a transmission.

Page 66, Step 8, Contact-Based Transmission (correction and addenda): The table for contact-based transmissions is incorrect.

CONTACT-BASED TRANSMISSIONS

| | | - Per kW Power Plant Output - | | |
TL	Type	Volume	Weight	Price
5	Wheels	3.0	3.0	30
6	Wheels	1.0	1.0	15
7	Wheels	0.3	0.3	5
5	Tracks	5.0	5.0	50
6	Tracks	2.0	2.0	25
7	Tracks	0.5	0.5	10
8	Each Leg	8.0	8.0	100
9	Each Leg	2.0	2.0	25
10	Each Leg	0.4	0.4	15

Values shown are the totals for all necessary tracks or wheels, and for each leg (minimum of two required). Values shown are for one unit of transmissions per kilowatt of power plant output. One unit is required for each kilowatt of power plant output.

Page 66, Step 9, Select Avionics (correction): Avionics table headings should be: Volume, Weight and Power - not Power, Volume and Weight.

The first row should show a TL level of 7–.

Page 67, Step 2, Meson Communicators (correction): Meson communicator, planetary range, TL 20, is given a weight of 0.2; it should be 2.0.

Page 67, Step 4, Laser Communicators (correction): The TL 16 column for a Laser Communicator should read: —, —, 0.001, 0.002, 0.004, 0.006, 0.010. The TL 17 column for a Laser Communicator should read: —, —, 0.001, 0.001, 0.003, 0.005, 0.010.

Page 67, Step 5, Maser Communicators (correction): The price note should say: If TL8, x2. The entry for a TL 8 V. Distant Maser Communicator should be 0.032, not 0.32. The TL 16 column for a Maser Communicator should read: —, 0.002, 0.003, 0.004, 0.007, 0.010, 0.040.

Page 68, Step 2, Radio Jammers (correction): The entry for a TL 9 Continental Radio Jammer should be 0.0026, not 0.002. The TL 10 entry on the same line (next column over) should be 0.002, not 0.0026.

Page 68, Step 3, Radars (correction): The prices for Radar should be: Weight x MCr1. All-weather Radar is Weight x MCr1.5.

Page 68, Step 5, Electromagnetic Masking (clarification): An EMM package does not mask the craft's emissions when it uses active EMS. An EMM package does not mask the craft from active EMS scans conducted by other craft.

Page 68, Step 7, Ladar (correction): Weights for TL 10 and 11 regional Ladars should be TL 10, 0.016 and TL 11, 0.008.

Page 69, Step 11, Neutrino Sensors (correction): The minimum magnitude for TL 20 should be 0.1 kW.

Page 70, Step 15, EMS Active Array (correction): The power requirement for the EMS Active Array should be: Weight in tons x 10.

Page 70, Step 16, EMS Passive Array (correction): There should be no entry for TL 13, and all other TLs should be shifted one place left, to match the EMS Active Array table in Step 15.

Page 71, Step 3, Meson Gun Table (correction): Price column and hardpoints column for the Meson Guns table are incorrect. They are:

MESON GUNS (SPINAL MOUNT)

UCP	MCr	Hardpoints	
A	10000	50	
B	12000	80	
C	3000	20	
D	5000	50	
E	800	10	
F	1000	20	
G	400	10	
H	600	20	
J	400	10	
K	10000	80	(volume should be 110,000, not 11,000)
L	3000	50	
M	800	40	
N	600	20	
P	5000	80	
Q	1000	70	
R	800	50	
S	2000	80	
T	1000	70	
U	2000	80	
V	1200	70	
W	1000	50	
X	2000	80	
Y	1200	70	
Z	800	50	

Page 72, Step 6, Bays (correction): Bay hardpoints are 10, not 100.

Page 72, Step 7, 100-ton Missile Bays (addition): The 100-ton missile bays stop at UCP factor 9, while 50-ton missile bays go all the way to UCP factor C. The correctly extended 100-ton missile bay entry is:

100-Ton Bay Weaponry

				-------------------------------- TL of the weapon --------------------------------													
TL	Type	Pwr	Wgt	MCr	8	9	10	11	12	13	14	15	16	17	18	19	20	21
8	Missile	5	50	20	7	7	8	8	9	9	A	A	B	B	C	C	D	D

Page 72, Step 8, 50-Ton Bay Weaponry (correction): TL 9 should be empty for the Plasma Gun, Fusion Gun, and Repulsor. Prices are missing: Plasma Gun, MCr5; Fusion Gun, MCr8; and Repulsor, MCr6. The Plasma and Fusion Gun bays are incorrect. They should be listed as:

50-Ton Bay Weaponry

				----------------------------- TL of the weapon -----------------------------											
TL	Type	Pwr	Wgt	MCr	10	11	12	13	14	15	16	17	18	19	20	21
10	Plasma Gun	2,500	35	5	4	5	6	—	—	—	—	—	—	—	—	—
12	Fusion Gun	5,000	35	8	—	—	7	8	9	A	B	C	D	E	F	—

Page 73, Step 9, Turrets, Mixed Weaponry (clarification): The craft design tables for turrets on pages 73 and 74 list the values for one weapon of the type installed in the turret. If you want to create a turret with mixed weapons, simply select the single weapons you want.

Page 73, Step 13, Plasma Gun Turrets (correction): Each Plasma Gun turret can have up to 2 weapons.

Page 74, Step 14, Fusion Gun Turrets (correction): Each Fusion Gun turret can have up to 2 weapons. Also, the Fusion Gun Turrets table is incorrect; a corrected version is presented below:

Fusion Gun Turrets

				------------------------- UCP Factor -------------------------									
TL	Type	Pwr	Wgt	MCr	1	2	3	4	5	6	7	8	9	A
12	Fusion Turret	500	5	2	—	—	—	1	4	10	16	20	—	—
14	Fusion Turret	500	5	2	—	—	—	—	1	4	10	16	20	—
17	Fusion Turret	500	5	2	—	—	—	—	—	1	4	10	16	20

This errata also changes the listed example: For example, 1 turret with 1 fusion gun (Tech level 17) produces a UCP fusion gun of 6.

Page 74, Step 16, Disintegrator Turrets (correction): The disintegrator turret example is confusing. A better example is 5 turrets with 10 disintegrators (TL 18) produce a UCP disintegrator factor of 3.

Page 74, Step 17, Rate of Fire (clarification): Rate of fire applies in personal combat, not in space combat. Each space combat round represents 20 minutes of elapsed time—ROF is inconsequential.

Page 74, Step 18, Magazine Requirements (correction and clarification): Missiles and sandcasters have ammunition storage requirements. Volume required is indicated in the table below.

AMMUNITION STORAGE

Type	TL	Volume	Weight	Price
Standard HE	5	0.1	0.05	20000
Nuclear	7	0.1	0.07	150000
Antimatter	16	0.1	0.09	200000
Sandcaster	7	0.1	0.05	400

Each weapon in a turret holds one round of ammunition. 100-ton bays hold 100 rounds; 50-ton bays hold 50 rounds. Each craft should have enough ammunition for at least one round of fire from all such batteries. One round of fire from a battery is called a battery-round.

Magazines: Otherwise empty bays can be designated as additional ammunition storage. Storage should be allocated in battery-rounds. For example, the battery-round for one triple missile turret is 3 missiles; the battery-round for one 100-ton missile bay is 50 missiles (100 missiles / ROF 2); Battery-round for one 50-ton missile bay is 25 missiles (50 missiles / ROF 2). A battery-round for one triple sandcaster turret is 18 canisters (ROF 6).

A 100-ton bay used as an ammunition magazine can hold up to 13,500 individual rounds.

Page 75 through 77, CBM Ammunition (omission): CBM ammunition is mentioned but no information is given for usage. Use the following details:

Bore Size	Hit DM
10cm	+1
12cm	+1
14cm	+2
16cm	+3
18cm	+4
20cm	+6
22cm	+8
24cm	+10
30cm	+12

Danger Space: 4x danger space of a HE round of the same Bore Size and TL.

For all targets in the danger space, roll once each for a contact hit and a fragmentation hit.

Contact Penetration: At TL 7, 6; at TL 8+, same as a 4cm HEAP howitzer round of the same TL.

Fragmentation Penetration: one-half the value of Contact Penetration (due to the abundance of submunitions exploding in the danger space).

Damage: same as a 4cm HEAP howitzer round of the same TL.

Page 75, Step 20, Mortars (clarification): Indirect Fire range lists a range band and a number in parentheses. The number in parentheses is the actual range in kilometers. Where the range band indicates a general range band for "effect", the exact range in kilometers is much more accurate. We recommend you use either the range band or the exact range in kilometers in a given combat session—don't use both. Missing and matching range methods can be confusing.

Page 76, Howitzer Ammunition (addition): The costs for the 2cm HE, 4cm HE and 2cm HEAP rounds are missing. They are: 2cm HE, Cr2; 4cm HE, Cr4; 2cm HEAP, Cr3.

Pages 76 and 77, Flechette Penetration (correction): The "Pen" column for flechette rounds should be labeled "Dgr" (for danger space) instead. The penetration for flechette rounds is equal to the HE penetration for the same sized round.

Page 77, Step 22, High Velocity Gun CPR Rounds (correction): Indirect fire range in km for a 10cm bore is 20, not 22. Indirect fire range in km for a 24cm bore is 60, not 90.

Page 77, Step 22b, HIVEL Gun Ammunition (correction): TL 8 ammunition volume and weight should be 0.014, not 0.14.

Page 77, HIVEL Ammunition (addition): The costs for the 2cm HEAP and 4cm HEAP rounds are missing. They are: 2cm HEAP, Cr5; 4cm HEAP, Cr10.

Page 77, Step 23b, Heavy Slugthrowers Table (addition): The following table presents more slugthrower weapon options for craft designs:

HEAVY SLUG THROWERS (CREW-SERVED)

TL	Type	Power	Vol	Wt	Price
5	Medium Machinegun-5	—	0.010	0.010	1,500
	100 round ammo belt	—	0.003	0.003	120
	ground tripod/pintel mount	—	0.025	0.025	300
	water cooling jacket	—	0.019	0.019	400
6	Heavy Machinegun-6	—	0.015	0.015	3,000
	100 round ammo belt	—	0.010	0.010	250
	ground tripod/pintel mount	—	0.040	0.040	400
	water cooling jacket	—	0.034	0.034	500
7	Light Machinegun-7	—	0.006	0.006	1,200
	100 round ammo belt	—	0.003	0.003	120
	ground tripod/pintel mount	—	0.010	0.010	250
7	5.5mm Gatling Gun-7	0.001	0.070	0.070	12,350
	2,500 round ammo hopper	—	0.031	0.031	2,250
	ground tripod/pintel mount	—	0.200	0.200	1,250
7	7mm Gatling Gun-7	0.002	0.100	0.100	15,500
	2,500 round ammo hopper	—	0.062	0.062	3,000
	ground tripod/pintel mount	—	0.300	0.300	1,500
8	5.5mm Gatling Gun-8	0.001	0.080	0.080	19,500
	5,000 round ammo hopper	—	0.062	0.062	4,500
	ground tripod/pintel mount	—	0.250	0.250	1,350
8	7mm Gatling Gun-8	0.002	0.100	0.100	23,500
	5,000 round ammo hopper	—	0.125	0.125	6,000
	ground tripod/pintel mount	—	0.300	0.300	1,750
10	VRF Gauss Gun-10	0.004	2.000	2.000	200,000
	1,000 round ammo hopper	—	0.300	0.300	6,000
	ground tripod/pintel mount	—	4.000	4.000	4,500

Page 77, Step 23c, 3cm Autocannon Table (addition): The following table presents an autocannon as a weapon option for craft designs:

TL	Type	Ammo	Pen/ Atten	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
8	3cm Autocannon	HE	2	6	VLong(3.5)	4	3	M	200
		HEAP	5	4	VLong(3.5)	4	—	M	200
		KEAP	4	4	VLong(3.5)	4	—	M	200

Tech Level Modifications:
HE Pen/Attn: +1 for ever 2 tech levels over 8.
HE Dngr Spc: +10 meters for every 3 tech levels over 8.
HEAP Pen/Attn: TL 9—10, +5; TL 11—12, +7; TL 13+, +9.
KEAP Pen/Attn: +1 for every 3 tech levels over 8.

Page 77, Step 23d, Miscellaneous Slugthrowers (addition): The following table presents still more slugthrower weapon options for craft designs:

MISCELLANEOUS SLUG THROWERS

TL	Type	Pwr	Vol	Wt	Price	Range	Sig	ROF
6	18cm MRL-6 tube	0.010	3.600	3.600	5,000	—	—	1
	Short range rocket*	—	0.003	0.001	170	Dist(9)	H	
	Medium range rocket*	—	0.004	0.002	340	Dist(18)	H	
	Long range rocket*	—	0.005	0.003	510	Dist(32)	H	
8	3cm Autocannon-8	0.002	0.350	0.350	11,000	VLong(3.5)	M	200
	200 round ammo hopper	—	0.100	0.100	1,000	—	—	
	ground tripod/pintel mount	—	0.050	0.050	250	—	—	
10	12cm Remote MRL-10 tube	0.020	2.000	2.000	5,000	—	—	1
	Short range rocket*	—	0.002	0.001	75	Dist(7)	H	
	Medium range rocket*	—	0.003	0.002	150	Dist(13)	H	
	Long range rocket*	—	0.004	0.003	225	Dist(22)	H	
11	6cm Light MRL-11 tube	0.004	0.120	0.006	500	—	—	1
	Short range rocket*	—	0.001	0.001	11	VLong(4)	M	
	Medium range rocket*	—	0.002	0.002	22	Dist(6)	M	
	Long range rocket*	—	0.003	0.003	33	Dist(10)	M	

*Select HE, HEAP or KEAPER warhead. Treat as a mortar round for determining penetration, damage and danger space.

Page 78, Step 24, Mass Driver Guns (Correction): Replace the second paragraph below the table with the following: Base Rate of Fire for Mass Driver Guns is 60. Rate of Fire may be increased by increasing power output. Doubling power doubles rate of fire. The limit to increased rate of fire is the square of the gun's Tech Level times 60 (the limit at TL 8 is 3,840; the limit at TL 15 is 13,500).

Page 78, Step 25, Beam Laser Table (addition): The following table presents additional information about craft-mounted beam laser weapons:

TL	Type	Pwr	Pen/Atten	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
8	Beam Laser	0.5	5/2	4	Dist(2.5)	2	1.5	H	40
		1.0	10/2	5	Dist(5.0)	2	3.0	H	40
		5.0	28/3	10	VDist(25)	2	4.5	H	40
		10.0	36/3	20	VDist(50)	2	15	H	40
		25.0	47/4	50	Rgnl(125)	2	30	H	40
		50.0	55/4	100	Rgnl(250)	2	45	H	40
13	Beam Laser	0.5	6/2	5	Dist(2.5)	2	1.5	L	40
		5.0	30/3	12	VDist(25)	2	4.5	L	40
		25.0	49/4	60	Rgnl(125)	2	30	L	40

Page 78, Step 26, Pulse Laser Table (addition): The following table presents additional information about craft-mounted laser weapons:

TL	Type	Pwr	Pen/Atten	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
8	Pulse Laser	1.0	6/2	4	Dist(2.5)	3	1.5	H	80
		2.0	13/2	5	Dist(5.0)	3	3.0	H	80
		10.0	30/3	10	VDist(25)	3	4.5	H	80
		20.0	38/3	20	VDist(50)	3	15.0	H	80
		50.0	49/4	50	Rgnl(125)	3	30.0	H	80
		100.0	57/4	100	Rgnl(250)	3	45.0	H	80
13	Pulse Laser	1.0	7/2	5	Dist(2.5)	3	1.5	L	80
		10.0	33/3	12	VDist(25)	3	4.5	L	80
		50.0	51/4	60	Rgnl(125)	3	30.0	L	80

Page 78, Step 26, Pulse Laser Guns (correction): The TL 13 laser that uses power of 1.0 has an incorrect volume and weight; the correct value is 0.03, not the 0.30 shown.

Page 78, Step 27, Standard Plasma Gun Table (addition): The following table presents additional information about craft-mounted standard plasma weapons:

TL	Type	Pen/Atten	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
10	Standard Plasma PA-10	44/5	20	VDist(5.1)	2	15	H	40
11	Standard Plasma PA-11	44/5	20	VDist(5.1)	2	50	H	40
11	Standard Plasma PB-11	54/5	20	VDist(7.8)	2	30	H	40
12	Standard Plasma PB-12	54/5	20	VDist(7.8)	2	30	H	40
12	Standard Plasma PC-12	64/5	20	VDist(12)	2	45	H	40
13	Standard Plasma PC-13	64/5	20	VDist(12)	2	45	H	40

Page 78, Step 28, Rapid-Pulse Plasma Gun Table (addition): The following table presents additional information about craft-mounted rapid-pulse plasma weapons:

TL	Type	Pen/Atten	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
12	Rapid Pulse Plasma RPA-12	44/5	20	VDist(5.1)	3	15	H	80
13	Rapid Pulse Plasma RPA-13	44/5	20	VDist(5.1)	4	15	H	160
13	Rapid Pulse Plasma RPB-13	54/5	20	VDist(7.8)	3	30	H	80
14	Rapid Pulse Plasma RPA-14	44/5	20	VDist(5.1)	5	15	H	320
14	Rapid Pulse Plasma RPB-14	54/5	20	VDist(7.8)	4	30	H	160
14	Rapid Pulse Plasma RPC-14	64/5	20	VDist(12)	3	45	H	80
15	Rapid Pulse Plasma RPA-15	44/5	20	VDist(5.1)	6	15	H	640
15	Rapid Pulse Plasma RPB-15	54/5	20	VDist(7.8)	5	30	H	320
15	Rapid Pulse Plasma RPB-15	64/5	20	VDist(12)	4	45	H	160

Page 78, Step 29, Standard Fusion Gun Table (addition): The following table presents additional information about craft-mounted standard fusion weapons:

TL	Type	Pen/Atten	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
12	Standard Fusion FX-12	67/5	30	VDist(18)	2	45	H	40
13	Standard Fusion FX-13	67/5	30	VDist(18)	2	45	H	40
13	Standard Fusion FY-13	71/5	30	VDist(21)	2	45	H	40
14	Standard Fusion FY-14	71/5	30	VDist(21)	2	45	H	40
14	Standard Fusion FZ-14	79/5	30	VDist(30)	2	45	H	40
15	Standard Fusion FZ-15	79/5	30	VDist(30)	2	45	H	40

Page 78, Step 30, Rapid-Pulse Fusion Gun Table (addition): The following table presents additional information about craft-mounted rapid-pulse fusion weapons:

TL	Type	Pen/Atten	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
14	Rapid Pulse Fusion RFX-14	67/5	30	VDist(18)	3	45	H	80
15	Rapid Pulse Fusion RFX-15	67/5	30	VDist(18)	4	45	H	160
15	Rapid Pulse Fusion RFY-15	71/5	30	VDist(21)	3	45	H	80
16	Rapid Pulse Fusion RFX-16	67/5	30	VDist(18)	5	45	H	320
16	Rapid Pulse Fusion RFY-16	71/5	30	VDist(21)	4	45	H	160
16	Rapid Pulse Fusion RFZ-16	79/5	30	VDist(30)	3	45	H	80

Page 79, Step 33, Weapon Mounts (correction): Change the last sentence to read: If a vehicle is open-topped or smaller than a UCP of 0.2, the weapon mount must be Fixed or Open; Turrets or Cupolas are not allowed.

Page 80, Step 2, Nuclear Dampers (correction and clarification): The listed Nuclear Damper price is in MCr. Note the following highlighted corrections for the Nuclear Dampers table.

UCP	Power	Volume	Weight	MCr
2	5000	270	300	40
3	7500	540	590	45

Page 80, Step 3, Meson Screens (correction): The following table represents corrected information about meson screens:

UCP	TL	Power	Volume	Weight	MCr
1	12	0.015	1220	910	80
2	13	0.030	400	300	50
3	13	0.045	610	460	55
4	14	0.060	215	160	40
5	14	0.075	270	230	45
6	14	0.090	325	290	50
7	15	0.105	270	245	40
8	15	0.120	400	360	50
9	15	0.135	540	490	60
A	16	0.150	325	310	50
B	17	0.165	365	340	60
C	18	0.180	435	390	70
D	19	0.195	485	460	80
E	20	0.210	540	560	90
F	21	0.225	595	640	100

The corrected table for optimized Meson Screen Packs is:

UCP	TL	Power	Volume	Weight	MCr
1	16	0.135	108	85	55
1	17	0.100	90	75	23
1	18	0.065	84	65	17
1	19	0.035	65	55	9
1	20	0.015	40	45	4
1	21	0.010	33	40	1

Page 80, Step 6, White Globes (clarification): White Globes price is in MCr.

Page 81, Step 1, Environment Controls (correction): Basic Life Support volume and weight is 0.005, not 0.050.

Page 81, Step 2, Control Points (addenda and correction): When determining control points required by the power supply, ignore storage batteries. Storage batteries require no control points.

Page 81, Step 3, Computers (clarification and correction): Computer prices are in MCr. 9/bis computer should be 9/fib. Max CP input for a 9/fib computer should be 100 million.

The input CP is the maximum control panel input the computer can handle. You cannot connect more control panel CPs to the input side of the computer than listed here. If the control panel output times the computer multiplier does not totally satisfy the control panel needs of the craft in question, the craft will not work correctly.

Page 81, Step 4, Control Panel Units (clarification): The first sentence "Select and install enough control panel units..." should instead read "Select and install enough control panel units and control panel add-ons..."

Page 81, Step 6, Electronic Circuit Protection (clarification): To implement the protecting effects of electronic circuit protection in starship combat, ignore every odd-numbered hit on the computer. So, if the ship has electronic circuit protection, ignore the first computer hit, the third computer hit, the fifth computer hit, and so on.

Page 82, Step 3, Reduced Vehicle Gunners (revision and correction): The formula for reducing vehicle gunners penalizes a design that has increased sensors, which was not what was intended, and the original revision (X=(C+S)÷W) encourages designs with more sensors than necessary, which was not what was intended either. The following formula fixes both problems: X=C÷(W÷S).

Page 82, Step 4, Supplanted Vehicle Commander (revision): The formula for determining if a vehicle commander is unnecessary penalizes expensive (and thus higher TL) designs, which was not what was intended. The following formula fixes this problem: X=(T÷S)÷C.

Page 82, Step 6, Vehicle Crew Accommodations (clarification): The position with an Access of None is for vehicles with a displacement UCP of 0.2 or less; this represents volume for the seat and leg room of a person riding outside a vehicle, such as on a motorcycle.

Page 82, Step 7, Starship and Spacecraft Crews (corrections and clarifications): On the Engineering Crew formula (Ce): L=Locomotion CP. On the Maintenance Crew formula (Cm): A=Hull displacement divided by 100, H=Hull CP. On the Gunnery Crew formula (Cg): If Cg as computed above exceeds 50, then recompute Cg instead as Cg = 50 + (Cg/50), rounding fractions up. On the Frozen Watch formula (Cf): H = Hull displacement divided by 1000 (minimum 1). On the Medical Crew formula (Cd), Cd = (Z/120)+((Cl+Cf)/20) (drop fractions), where Z=Crew and Passengers, Cl=Low Passengers, and Cf=Frozen Watch.

Page 82, Step 8, Crew Segments (correction): Divide the crew into one even segment per 13,500 kiloliters of hull; treat a fractional hull segment as a full segment. For example, the 45-person crew of a 16,200-kiloliter ship divides into 23-person segments.

Page 82, Step 9, Extended Accommodations Table (clarification): A low berth holds one individual, and is essentially a specialized bunk. An emergency low berth holds 4 individuals on a short-term emergency basis only. The volume of all accommodations was doubled from the original volumes given in **High Guard** to allow for access—what good does it do to put in a bunk if you can't get to it?

Page 82, Step 10, Subordinate Craft (addition): The requirements for a drop capsule that is ready for use is: power=0.001Mw, volume=0.4 kl, weight=0.2 tons, price=Cr80,000.

Page 83, Step 3, Fuel Purification Plant (clarification): The listed price of the fuel purification plants is in credits (Cr).

A good "trick" is to include the fuel purification volume requirement in the fuel per volume requirement, giving us a sort of "fuel capacity rate". To do so, use the following table:

Fuel Consumption Modifiers to Include Fuel Purification

TL	Mod
8	x1.70
9	x1.60
10	x1.55
11	x1.45
12	x1.40
13	x1.35
14	x1.25
15	x1.20
16	x1.15
17	x1.05

Page 87, Agility (clarification): In the old **High Guard** system, agility was defined as an attribute of maneuver drive—that is, "how effectively can my drive out-maneuver yours." In the new **MegaTraveller** rules, separating out weight and volume into unique craft attributes made it clear that agility needed to be more precisely defined as its own unique attribute, related to ship mass, not to ship speed.

Under the new rules, agility is defined as the "ability to change your craft's orientation over time," which is more a function of ship mass than of ship speed. Under this new definition, it becomes immediately obvious that smaller vessels will tend to have a greater agility than larger vessels. Consider: which is faster, the Queen Mary, or a rowboat? Which can change its heading more quickly? The rowboat has the greater agility, even though its "maneuver drive" speed rating is far less than the Queen Mary's.

Page 87, Active Object Scan (clarification): The table does not show the range to an object; rather, the table shows the range limit (that is, the strength) of the sensor. Since the strength of the sensor is what the table shows, it makes sense that weaker sensors—those with a shorter range—are less sensitive.

Page 87, Active Object Pinpoint (correction): From the context, it is obvious that ladar is being described, not radar. Replace all occurrences of radar or RADAR with ladar or LADAR.

Page 88, left column, Neutrino Sensors (correction): The final entry in the Neutrino Sensors table should be "0.1 kW +10", not "1kw +10".

Page 88, Passive Energy Pinpoint Table (correction): The table at the top of the second column on the page is mistakenly labeled as "Passive Energy Scan Ability", and should instead be labeled "Passive Energy Pinpoint Ability."

Page 88, Bearing Table (correction): Change "Over 400,000" to "500,000+".

Page 91, left column, Surprise (correction): In the referee's paragraph of the task for determining surprise, change "If any mishap occurs..." to "If exceptional failure occurs...". Thus if the attacker gets exceptional failure on the surprise task roll, the defender has surprise instead.

Page 90, right column, Tactical Pools (addition): Modify the tactical point pools of each side according to the following table, once for each unit, based on their Control Panel Units (page 81):

TL	Control Type	DM
8	Electronic linked	–2
9	Computer linked	–1
10	Dynamic linked	0
13	Holodynamic linked	+1

Page 91, right column, Step 2, Fight a Round of Combat (clarification): If the tactical pools of both sides are equal, or if neither side has a tactical pool, then determine the side which selects which side acts first based on the following precedence:
1. The side with a single ship, if the other side has multiple craft;
2. The side with the ship with the highest agility;
3. The side with the pilot with the highest Pilot skill;
4. The side with the fewest craft;
5. Roll a d6 for each side, high roll selects.

Page 92, Sensor Operation Tasks (correction): The word *Difficult* is incorrectly used in the sensor task for locating a target (on the bottom of the left column). The word should be *[Difficulty]*, meaning a variable difficulty is used on this task. The referee notes for this task explain how to arrive at the proper difficulty level by using the starship's UCP.

Page 92, right column, Sensor Lock (clarification): Each new combat round, as long as the target unit does not move out of its square, the sensor lock stays in effect.

If the sensing unit uses active sensors for the scan and the enemy has any functioning sensors, the sensing unit must reveal itself to the enemy (just as if the enemy had performed an exceptional success sensor scan on the sensing unit).

Page 93, left column, Range Modifiers (clarification): Change all references from "beyond planetary range" to "at far range".

Page 94, left column, Modifiers for Ship Damage Tables, second entry (correction): Replace "If the weapon inflicting the hit has a UCP factor of 9 or less..." with "If the weapon inflicting the hit has a UCP factor of A or more, apply a DM of +6."

Page 94, DMs for Ship Damage Tables (revision): Change the wording of the sentence that says "If the weapon inflicting the hit has a UCP factor of…" to read "If the weapon inflicting the hit is a spinal mount, apply a DM of +6."

Page 94, Power Plant-n (clarification): Reduce the UCP power plant factor of the target vessel by 10% (minimum of 1) for each -n level hit. For example, the Mercenary Cruiser in the **Imperial Encyclopedia** (800-ton displacement) has a power plant UCP factor of 20/40. A power plant-1 hit reduces this by 2 (10% of 20), to 18/40. Once the UCP factor is reduced to one-half (10/40), spinal mount weapons (if any) no longer work, and the maneuver drive rating drops by one-half. An additional 5 hits on the Mercenary Cruiser would render the ship's power plant inoperative.

Any additional hits once the inoperative level is reached are applied at 10% damage against the right-hand value (for the Mercenary Cruiser, this reduces the 40 on the right by 4 for each level of power plant hit). If the right-hand number reaches zero, the power plant is destroyed beyond repair.

Page 95, Black/White Globes (clarification): Treat white globes just like black globes, except a ship mounting a white globe can see out, maneuver and fire. All other effects are the same. A black globe that is totally on shows up on enemy sensors as a "hole" in space. The prudent commander will flicker his black globe to allow enough emissions from his ship to escape so as to blend in with background levels and effectively be invisible to enemy sensors (roll 1D x 10% to determine the flicker rate needed to currently match local background levels). A shrewd commander will flicker a white globe for exactly the same effect.

Page 95, right column, Special Rules (addition): A space vessel with an antigrav-based maneuver drive has its maneuver drive number halved when 10 or more squares away from a massive astronomical body. A thruster-based maneuver drive does not suffer these effects.

Page 95, left column, Tractors (clarification): Tractor Pull/Target Weight = Agility and Speed Loss (round fractions up).

Page 97, Starship Combat Tasks (clarification): Change all references from "beyond planetary range" to "at far range."

Page 97, Starship Combat Penetration Task (clarification): The task for penetrating a defense in starship combat is confusing. A clearer way to express the task is:

To penetrate a defense in starship combat:
Difficult, Off=computer size, penetration table DM; Def= computer size (confrontation).
Referee: Notice the penetration table DM belongs under the offensive DMs and is added, rather than a defensive DM that is subtracted.

Page 98, Table 1, Disintegrators (revision): The current Disintegrator Table makes this a weapon that is not really lethal, and since they are outrageously expensive, not really cost-effective. This was not the intent for these extremely high tech weapons. The following table properly upgrades disintegrators to a much more lethal and cost-effective weapon, as was originally intended:

Attacking Disintegrator Factor

	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
To Hit:	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12
To Pen:	**Nuclear Damper**														
1	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9
2	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
3	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
4	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8
5	0	1	1	2	2	3	3	4	4	5	5	6	6	7	7
6	0	0	1	1	2	2	3	3	4	4	5	5	6	6	7
7	−1	0	0	1	1	2	2	3	3	4	4	5	5	6	6
8	−1	−1	0	0	1	1	2	2	3	3	4	4	5	5	6
9	−2	−1	−1	0	0	1	1	2	2	3	3	4	4	5	5
A	−2	−2	−1	−1	0	0	1	1	2	2	3	3	4	4	5
B	−3	−2	−2	−1	−1	0	0	1	1	2	2	3	3	4	4
C	−3	−3	−2	−2	−1	−1	0	0	1	1	2	2	3	3	4
D	−4	−3	−3	−2	−2	−1	−1	0	0	1	1	2	2	3	3
E	−4	−4	−3	−3	−2	−2	−1	−1	0	0	1	1	2	2	3
F	−5	−4	−4	−3	−3	−2	−2	−1	−1	0	0	1	1	2	2

Page 98, Table 3, Tractors (correction): The Tractor Table is upside down and backwards, and because of this it is easier to penetrate better defenses, which is wrong. The correct table is given below:

Attacking Tractor Factors

	1	2	3	4	5	6	7	8	9
To Hit:	5	5	6	6	7	7	8	8	9
To Pen:	**Repulsor**								
1	9	10	11	11	11	11	11	11	11
2	8	9	10	11	11	11	11	11	11
3	7	8	9	10	11	11	11	11	11
4	6	7	8	9	10	11	11	11	11
5	5	6	7	8	9	10	11	11	11
6	4	5	6	7	8	9	10	11	11
7	3	4	5	6	7	8	9	10	11
8	2	3	4	5	6	7	8	9	10
9	1	2	3	4	5	6	7	8	9
A	0	1	2	3	4	5	6	7	8
B	−1	0	1	2	3	4	5	6	7
C	−2	−1	0	1	2	3	4	5	6
D	−3	−2	−1	0	1	2	3	4	5
E	−4	−3	−2	−1	0	1	2	3	4
F	−5	−4	−3	−2	−1	0	1	2	3

Page 99, Attacking Beam Factor table (correction): The "To Hit" values are incorrect. The correct values are:

Attacking Beam Factor

	1	2	3	4	5	6	7	8	9	A	B	C
To Hit:	3	4	4	5	5	6	6	7	7	8	8	9

Page 100, Table 6, Missile Table (correction and addition): The "To Hit" values are incorrect; also, since the 100-ton missile bay has been extended, a "D" factor column needs to be added to the Missile Tables. Also, move disintegrators from the Sand and Beam table to the Repulsor table. The second table should now read "Repulsor or Disintegrator". The correct table is:

	Attacking Missile Factor												
	1	2	3	4	5	6	7	8	9	A	B	C	D
To Hit:	4	4	5	5	6	6	7	7	8	8	9	9	10
To Pen:	**Sand or Beam**												
1	6	7	8	9	10	11	11	11	11	11	11	11	11
2	5	6	7	8	9	10	11	11	11	11	11	11	11
3	4	5	6	7	8	9	10	11	11	11	11	11	11
4	3	4	5	6	7	8	9	10	11	11	11	11	11
5	2	3	4	5	6	7	8	9	10	11	11	11	11
6	1	2	3	4	5	6	7	8	9	10	11	11	11
7	0	1	2	3	4	5	6	7	8	9	10	11	11
8	−1	0	1	2	3	4	5	6	7	8	9	10	11
9	−2	−1	0	1	2	3	4	5	6	7	8	9	10
A	−3	−2	−1	0	1	2	3	4	5	6	7	8	9
To Pen:	**Repulsor or Disintegrator**												
1	−4	−3	−2	−1	0	1	2	3	4	5	6	7	8
2	−5	−4	−3	−2	−1	0	1	2	3	4	5	6	7
3	−6	−5	−4	−3	−2	−1	0	1	2	3	4	5	6
4	−7	−6	−5	−4	−3	−2	−1	0	1	2	3	4	5
5	−8	−7	−6	−5	−4	−3	−2	−1	0	1	2	3	4
6	−9	−8	−7	−6	−5	−4	−3	−2	−1	0	1	2	3
7	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1	0	1	2
8	−11	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1	0	1
9	−12	−11	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1	0
A	−13	−12	−11	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1
B	−14	−13	−12	−11	−10	−9	−8	−7	−6	−5	−4	−3	−2
C	−15	−14	−13	−12	−11	−10	−9	−8	−7	−6	−5	−4	−3
D	−16	−15	−14	−13	−12	−11	−10	−9	−8	−7	−6	−5	−4
E	−17	−16	−15	−14	−13	−12	−11	−10	−9	−8	−7	−6	−5
F	−18	−17	−16	−15	−14	−13	−12	−11	−10	−9	−8	−7	−6
To Pen:	**Nuclear Damper or Proton Screen**												
1	1	2	3	4	5	6	7	8	9	10	11	11	11
2	0	1	2	3	4	5	6	7	8	9	10	11	11
3	−1	0	1	2	3	4	5	6	7	8	9	10	11
4	−2	−1	0	1	2	3	4	5	6	7	8	9	10
5	−3	−2	−1	0	1	2	3	4	5	6	7	8	9
6	−4	−3	−2	−1	0	1	2	3	4	5	6	7	8
7	−5	−4	−3	−2	−1	0	1	2	3	4	5	6	7
8	−6	−5	−4	−3	−2	−1	0	1	2	3	4	5	6
9	−7	−6	−5	−4	−3	−2	−1	0	1	2	3	4	5
A	−8	−7	−6	−5	−4	−3	−2	−1	0	1	2	3	4
B	−9	−8	−7	−6	−5	−4	−3	−2	−1	0	1	2	3
C	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1	0	1	2
D	−11	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1	0	1
E	−12	−11	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1	0
F	−13	−12	−11	−10	−9	−8	−7	−6	−5	−4	−3	−2	−1

Page 100, Table 7, Particle Accelerator table (omission): The particle accelerator table was inadvertently omitted. Here it is:

Attacking Particle Accelerator Factor

	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	J	K	L	M	N	P
To Hit:	2	3	4	4	5	5	6	6	7	8	8	8	8	8	9	9	9	9	9	10	10	10	10

(cont'd)	Q	R	S	T	U	V	W	X	Y	Z
To Hit:	10	11	11	11	11	11	12	12	12	12

Page 101, Starship Damage Tables (correction): The Die column is incorrect. The corrected table is given below. In addition, strike the entry for disintegrators under the Interior Explosion Table. Disintegrators only use the Surface Explosion Table, which may give an interior explosion as a result. The Surface Damage Table is the only way disintegrators can end up rolling on the Interior Explosion Table.

STARSHIP DAMAGE TABLES

Die (2D)	Surface Explosion Damage Table	Radiation Damage Table	Interior Explosion Damage Table
–2	No Effect	No Effect	No Effect
–1	Weapon–1	Weapon–1	Power Plant–1
0	Weapon–1	Weapon–1	Jump–1
1	Fuel–1	Weapon–1	Screens–1
2	Weapon–1	Weapon–1	Sensor–1
3	Weapon–1	Weapon–2	Power Plant–1
4	Fuel–1	Sensor–1	Jump–1
5	Weapon–1	Computer–1	Screens–1
6	Weapon–1	Weapon–2	Computer–1
7	Fuel–1	Sensor–2	Power Plant–1
8	Maneuver–1	Computer–2	Sensor–2
9	Weapon–2	Weapon–4	Computer–1
10	Fuel–2	Sensor–2	Crew–1
11	Maneuver–1	Computer–2	Power Plant–2
12	Weapon–3	Computer–2	Jump–2
13	Fuel–3	Crew–1	Screens–3
14	Maneuver–2	Computer–3	Sensor–3
15	Interior Explosion	Crew–1	Fuel Tanks Shattered
16	Interior Explosion	Computer–4	Critical
17	Interior Explosion	Crew–2	Critical
18+	Critical	Critical	Critical
	Use this column for:	*Use this column for:*	*Use this column for:*
	Fusion, Plasma, Laser, Missiles, Particle Accelerator, and Disintegrator.	Particle Accelerator, Nuclear and Antimatter Missiles and Meson Guns.	Meson Guns

IMPERIAL ENCYCLOPEDIA

The following corrections apply to the **Imperial Encyclopedia**.

Page 10, left column, Empress Marava (correction): Change Araloine to Arakoine.

Page 10, right column, Emperor Styryx (correction): Emperor Styryx died in 994.

Page 20, Bilstein Yards (clarification): The library data printed in this section is circa late 1120. Most of the Glisten subsector (and thus the Bilstein Yards) was taken by the Aslan in late 1121.

Page 21, left column, fifth paragraph (correction): The last sentence should read "while a search went on for a member of Jaqueline's family to take the throne".

Page 37, left column, Second Frontier War (correction): Pronoun in last sentence should be "she".

Page 42: right column, Thoengling Empire (correction): Capitalize "Thoengling" in the second sentence.

Page 44, left column, Vargr Campaigns (correction): Dates should be 210 to 348.

Page 67, Drugs (clarification): Here, in tabular form, are all the drug prices:

Drug	Per Dose (Cr)
Single Disease Vaccine	15
Multiple Disease Vaccine	20
Antitoxin	20
Antibiotics	50
Metabolics	1,000
Slow Drug	500
Medical Slow	100
Fast Drug	200
Combat Drug	750
Anagathics	20,000
Truth Drug	5,000
Slow Drug Antidote	600
Fast Drug Antidote	900

Page 68, Vacc Suits (addition): There is a TL 7 vacc suit available that acts as mesh armor, has a volume of 3.6 kiloliters, weighs 12 kg, and costs Cr 10,000. The Dexterity encumbrance is also –3.

A series of hostile environment "hard" vacc suits are also available. Their values are given in the table below:

TL	Armor	Volume	Weight	Price (Cr)	Dex Encumbrance
8	Cloth–2	3.8 kliters	35 kg	12,000	–3
9	Cloth–1	3.8 kliters	40 kg	16,000	–3
10	Cbt Armor–2	3.0 kliters	40 kg	18,000	–3
11	Cbt Armor–1	2.0 kliters	10 kg	20,000	–3
12	Cbt Armor	2.6 kliters	25 kg	150,000	–2

Page 74, Armor and Protection (addition): Clamshell armor is a jacket of combat armor which only protects the torso and groin areas.

Page 74, Mines (addition): Add the following section on Mines:

All mines have low signature until detonated.

APERS Mines: An APERS mine explodes if contacted, usually only wounding the person who activated it. A bounding APERS mine has a booster charge which propels it into the air about one meter before detonation.

Antitank Mines: Antitank mines require a ground pressure of at least 150 kilograms to detonate, so you don't waste 10 kilograms of explosives on one soldier. At TL9, bounding antitank mines with magnetic sensors are introduced. These are designed to leap into the air several meters and detonate to catch low-flying grav vehicles. Others are designed with short-range, armor-piercing rockets which fire up into the vehicle's grav plates.

Chemical Mines: Chemical mine effects depend on the filler—lethal, nonlethal, persistent or nonpersistent agents. One special type of chemical mine is the fou gas mine. When detonated, it spreads flaming petroleum products across the danger space. Another is the paint mine, a Vargr invention, which spreads phosphorescent neon paint across the danger space, ruining the chameleon effect of any battle dress or combat armor unfortunate enough to be on or cross the area.

Directional Mines: Directional mines are not buried. They are concealed at ground level and detonated by trip-wire or command. The first danger space is a circular area around the mine itself due to the blast. The second is the range of the primary effect. Everyone within a 30-degree-wide cone out to 50 meters is hit by flechettes.

Trip-Wire Mines: Trip-wire mines have three-meter trip-wires attached and are activated if the trip-wire is touched or cut. The signal mine is mainly used as a warning device at night or in poor visibility. The flare acts as a small illuminated round with only a few seconds' duration.

Chemical, directional and antitank mines can be command detonated.

Page 75, 7mm Bolt Action Rifle (addition): The 7mm Bolt Action Rifle listed in the **Players' Manual** errata is available at TL 4 and costs Cr 100. In all other respects, it is identical to the standard 7mm rifle listed on page 75 of the **Imperial Encyclopedia**.

Page 75, PGMP-13 (correction): The PGMP-13 volume and weight should be 0.9, not 9.0.

Page 75, PGMP-14 (correction): The PGMP-14 volume and weight should be 9.0, not 1.0.

Page 75, Weapons Prices (addition): Add the following values to the Weapons Prices table:

Weapon	TL	Weight	Price (Cr)	Ammo Weight	Ammo Price
Hand grenade HE	4	0.5	4	—	—
Hand grenade HE AP	5	1.0	10	—	—
Smoke grenade	5	0.5	3	—	—
Incendiary grenade	5	1.0	20	—	—
Chemical grenade	6	0.5	6	—	—
4cm Rifle grenade	5	0.4	8	—	—
6cm Rifle grenade	6	0.5	9	—	—
4cm RAM rifle grenade	8	0.6	10	—	—
APERS mine	5	1.0	20	—	—
Bounding APERS mine	5	3.0	75	—	—
Directional mine	6	2.0	250	—	—
Antitank mine	5	14.0	1,000	—	—
Chemical mine	5	15.0	1,400	—	—
Trip-wire mine	5	1.0	100	—	—
7cm AT GL-6	6	6.0	1,500	2.0	45
8cm AT GL-6	6	7.0	3,000	2.5	75
9cm AT GL-6	6	8.0	4,500	3.0	175
Disposable GL-6	6	2.0	200	—	—
4cm GL-7	7	2.0	500	0.3	5
4cm Auto GL-7	7	40.0	5,000	0.4	6
4cm RAM GL	8	2.0	1000	0.4	6
4cm RAM Auto GL	8	40.0	10,000	0.5	7
6cm Recoilless Rifle	6	21.0	7,500	1.3	75
8cm Recoilless Rifle	6	67.0	15,000	10.0	300
10cm Recoilless Rifle	6	152.0	18,000	16.0	450
Flamethrower	5	23.0	11,000	20.0	300

Page 75, Armor Table (addition): Add the following values to the Armor table:

Armor	TL	Vol	Weight	Price (Cr)
Leather	1	3.0	5.0	75
Chainmail	1	4.5	25.0	150
Plate	2	6.0	35.0	250
Clamshell	11	1.8	10.0	10,000

Page 76, Vehicles (correction): As there are numerous errors in the UCPs for the various vehicles presented, here are the revised UCPs for the ground vehicles:

GROUND CAR

CraftID:	Ground Car, TL 5, Cr 3,100
Hull:	2/5, Disp=2, Config=4USL, Armor=4B, Unloaded=4 tons, Loaded=5 tons
Power:	1/2, Int Comb=0.1Mw, Duration=6 hours
Loco:	1/2, Wheels, Road=80 kph, Off-road=25 kph
Commo:	None (some have a radio receiver)
Sensors:	None
Off/Def:	HardPoints=1
Control:	Panel=Mech, Env=Basic env
Accomm:	Crew=1 (Operator=1), Seats=Cramped x 6
Other:	Cargo=1kl, Fuel=0.072kl; ObjSize=Small, EmLevel=Faint

The ground car is an ordinary self-powered vehicle suitable for use in civilized areas on low-tech worlds.

WHEELED ATV

CraftID:	Wheeled ATV, TL 6, Cr 46,400
Hull:	9/23, Disp=10, Config=4USL, Armor=6B, Unloaded=28 tons, Loaded=55 tons
Power:	1/2, IntComb=2Mw, Duration=4/12
Loco:	1/2, Wheels, Road=100kph, Off-road=35kph
Commo:	None (some have a radio receiver)
Sensors:	None
Off/Def:	HardPoints=1
Control:	Panel=Mech, Env=Basic env, basic ls
Accomm:	Crew=1 (Operator=1), Seats=Roomy x 17
Other:	Cargo=25kl, Fuel=18kl; ObjSize=Small, EmLevel=Faint

The wheeled all-terrain vehicle is a wheeled vehicle used on low-tech worlds for exploration.

TRACKED ATV

CraftID:	Tracked ATV, TL 6, Cr 49,600
Hull:	9/23, Disp=10, Config=4USL, Armor=6B, Unloaded=47 tons, Loaded=74 tons
Power:	1/2, IntComb=2Mw, Duration=4/12
Loco:	1/2, Tracks, Road=80kph, Off-road=50kph
Commo:	Radio=Rgnl (500km)
Sensors:	None
Off/Def:	HardPoints=1
Control:	Panel=Mech, Env=basic env, basic ls
Accomm:	Crew=1 (Operator=1), Seats=Roomy x 17
Other:	Cargo=25kl, Fuel=18kl; ObjSize=Small, EmLevel=Faint

The tracked all-terrain vehicle is a tracked vehicle used on low-tech worlds for exploration.

OPEN-TOP AIR/RAFT

CraftID:	Open-Top Air/Raft, TL 15, Cr275,000
Hull:	2/5, Disp=2, Config=4USL, Armor=4G, Unloaded=1.6 tons, Loaded=7.2 tons
Power:	1/2, Fusion=1.5Mw, Duration=60/180
Loco:	1/2, Std Grav, Thrust=8.0 tons, NOE=120kph, Cruise=90kph, Top=120kph
Commo:	Radio=Planetary (50,000km)
Sensors:	PassEMS=VDist (50km), ActEMS=VDist (50km), ActObjScan=Diff, ActObjPin=Diff, PasEngScan=Form
Off/Def:	HardPoints=1
Control:	Computer=0 x 2, Panel=HoloDynLink x 5, Env=Basic env
Accomm:	Crew=1 (Operator=1), Seats=Roomy x 4
Other:	Cargo=5.4kl, Fuel=3.3kl; ObjSize=Small, EmLevel=Faint

The open-top air/raft is common on high-tech worlds, being efficient and inexpensive.

ENCLOSED AIR/RAFT

CraftID: Enclosed Air/Raft, TL 15, Cr389,000
Hull: 3.6/9, Disp=4, Config=1USL, Armor=4G, Unloaded=5 tons, Loaded=19 tons
Power: 1/2, Fusion=0.25Mw, Duration=60/180
Loco: 1/2, Std Grav, Thrust=20.6 tons, NOE=120kph, Cruise=90kph, Top=120kph
Commo: Radio=Planetary (50,000km)
Sensors: PassEMS=VDist (50km), ActEMS=VDist (50km), ActObjScan=Diff, ActObjPin=Diff, PasEngScan=Form
Off/Def: HardPoints=1
Control: Computer=0 x 2, Panel=HoloDynLink, Special=HUD, Env=Basic env, basic ls, inertial comp
Accomm: Crew=1 (Operator=1), Seats=Roomy x 4
Other: Cargo=8kl, Fuel=13.5kl; ObjSize=Small, EmLevel=Faint

The enclosed air/raft is another of the most common vehicles on high-tech worlds; it has a slightly higher cost but correspondingly more comfort than the open version.

GCARRIER

CraftID: GCarrier, TL 15, MCr14.44
Hull: 7/18, Disp=8, Config=4SL, Armor=10G, Unloaded=20 tons, Loaded=48 tons
Power: 1/2, Fusion=54Mw, Duration=10/30
Loco: 1/2, Std Grav, Thrust=53 tons, NOE=120kph, Cruise=90kph, Top=120kph
Commo: Radio=Sys (1,000AU)
Sensors: PassEMS=VDist (50km), ActEMS=VDist (50km), ActObjScan=Diff, ActObjPin=Diff, PasEngScan=Rout
Off/Def: HardPoints=1

	Ammo	Pen/ Attn	Dmg	Max Range	Auto Tgts	Dngr Spc	Sig	ROF
Fusion RFX-15	0	67/5	30	VDist(18)	4	45	H	160

Control: Computer=0 x 2, Panel=HoloDynLink, Special=HUD, Env=Basic env, basic ls, inertial comp
Accomm: Crew=1 (Operator=1), Seats=Roomy x 4
Other: Cargo=27kl, Fuel=13kl; ObjSize=Small, EmLevel=Faint

The Gcarrier is an enclosed military or quasi-military grav vehicle. Similar in concept to an armored air/raft, the Gcarrier has a gun mount and an armored rear hatch door.

SPEEDER

CraftID: Speeder, TL 15, MCr1.36
Hull: 5/14, Disp=6, Config=1AF, Armor=4G, Unloaded=19 tons, Loaded=25 tons
Power: 1/2, Fusion=54Mw, Duration=45/135
Loco: 1/2, Std Grav, Thrust=52 tons, NOE=190kph, Cruise=810kph, Top=1,080kph
Commo: Radio=Sys (1,000AU)
Sensors: PassEMS=VDist (50km), ActEMS=VDist (50km), ActObjScan=Diff, ActObjPin=Diff, PasEngScan=Rout
Off/Def: HardPoints=1
Control: Computer=0 x 2, Panel=HoloDynLink, Special=HUD, Env=Basic env, basic ls, inertial comp

> **Accomm:** Crew=1 (Operator=1), Seats=Roomy x 2
> **Other:** Cargo=2kl, Fuel=58kl; ObjSize=Small, EmLevel=Faint

The speeder is a streamlined grav-powered craft intended for high-speed transport between points on a world surface.

Pages 78 through 85, Starships, Spacecraft and Vehicles (clarification): The starship examples all include the 20% discount.

Page 78, Ship's Boat (correction): Top Speed (vacuum) = 4200kph.

Page 78, Slow Boat (correction): Top Speed (vacuum) = 2850kph.

Page 79, Pinnace (correction): Top Speed (vacuum) = 3840kph.

Page 79, Slow Pinnace (correction): Top Speed (vacuum) = 2120kph.

Page 80, Fighter (correction): The following design by Scott Kellogg (corrected for **Rebellion Sourcebook** and **Arrival Vengeance**) contains many corrections:

> **CraftID:** Fighter, TL15, MCr19.63088
> **Hull:** 9/23, Disp=10, Config=3AF, Armor=40G, Unloaded=179.7tons,
> Loaded=189.1tons
> **Power:** 3/5, Fusion=627.5Mw, Duration=5/15
> **Loco:** 3/5, StdGrav, Thrust=1773 tons, MaxAccel=9.4G (DeepSpace=4.7G),
> NOE=190kph, Cruise=3150kph, Top=200kph, Agility=6
> **Commo:** Radio=System
> **Sensors:** PassiveEMS=Interplanetary, ActiveEMS=Planetary, ActObjScan=Diff,
> ActObjPin=Diff, PasEngScan=Rout
> **Off:** BeamLaser = xx2
> > Batt   1
> > Bear   1
> **Def:** DefDM=+10
> **Control:** Computer=2x3, Panel=HoloLink, Special=HoloHUDx1/2/2, Env=basic env,
> basic ls, ext ls, grav plts, inertial comp.
> **Accomm:** Crew=1 (Operator =1), Seats=Roomyx1
> **Other:** Cargo=6.75kl, Fuel=37.65kl; ObjSize=Avg, EmLevel=Mod

Page 80, Scout/Courier (correction): Fuel = 515 kliters.

Page 81, Seeker (correction): Fuel = 504 kliters.

Page 81, Far Trader (correction): Replace "basic basic ls " with "basic env, basic ls".

Page 82, Yacht (correction): Maneuver = 1, Jump = 1.

Page 83, Mercenary Cruiser (correction): Maneuver = 3, Jump = 3.

Page 86, Reference to Interplanetary Travel Diagram and Formula (correction): The travel diagram and formula are in the **Referee's Companion**.

Page 92, Step 6, Travel to 100 diameters (addition): Double the travel time if the vessel has an antigrav-based maneuver drive.

Page 92, Step 9, Jumpspace (correction): Replace "2 to 5=days" with "2 to 5 = 7 days".

Page 93, Step 10, Emerge from Jumpspace (addition): Double the travel time if the vessel has an antigrav-based maneuver drive.

Recording Devices (omission): Recording devices were accidentally omitted from the **Imperial Encyclopedia**. They are listed here for your convenience.

TEXT RECORDERS

At TL 10, text recorders can transcribe: that is, they can produce written text directly from spoken words. Information is recorded on small tape cassettes costing Cr 3. At TL 13, data is recorded on holographic crystals instead. Tapes can hold approximately 20 million words; crystals can hold ten times that. At TL 10, text recorders can transcribe spoken voice to written text automatically. Memclips for specific languages are also available—each allows transcribing from a specific spoken language.

Description	TL	Volume	Weight	Price (Cr)
Text Recorder	10	2 liters	1 kg	1,200
Linguistics Memclip	10	—	—	150
Recording Tape (20 million words)	10	—	—	3
Recording Crystal (200 million words)	13	—	—	3

SOUND RECORDERS

Extremely small, pencil-sized recorders appear at TL 10, and can easily record anything detectable by the human ear. Dedicated computer software within the recorder allows the user to instantly playback any part of a recording. By TL 13, sound recorders use holographic crystals as the recording media. Cartridges can hold approximately 10 hours of recordings; crystals can hold ten times that.

Description	TL	Volume	Weight	Price (Cr)
Sound Recorder	10	—	—	300
Recording Cartridge (10 hours)	10	—	—	5
Recording Crystal (100 hours)	13	—	—	5

IMAGE RECORDERS

Two-dimensional images remain the most common method of image recording, with the speed and ease of use improving drastically at higher tech levels. Although holography is generally invented around TL 7, inexpensive and practical methods to produce and view still holographic images are not perfected until TL 11. Inexpensive two-dimensional image recordings (snapshots) are still a popular alternative to three-dimensional images beyond TL 11.

Two-Dimensional Still Camera: The TL 10 still camera is inexpensive, easy to use and produces detailed images that can be viewed instantly. The "recording card" used to record images is re-usable (200 images). The recording crystal can hold ten times more than the card.

Description	TL	Volume	Weight	Price (Cr)
2D Still Camera	10	0.1 liter	0.1 kg	150
Recording Card (200 images)	10	—	—	3
Recording Crystal (2000 images)	13	—	—	3

Three-Dimensional Still Camera: In spite of the awkwardness of using the first marginally portable three-dimensional still cameras (which require a separate power pack) at TL 11, 3-D image recorders are in public demand, because of there great advantages over the two-dimensional machines. At TL 13, with the advent of compact batteries providing the necessary sustaining power level, three-dimensional still cameras reach handheld size. The recording card can hold 40 images, the crystal 400.

Description	TL	Volume	Weight	Price (Cr)
3D Still Camera	11	14 liters	8 kg	1,500
Power Pack (TL 11, 12 camera)	11	2 liters	2 kg	600
Recording Card (40 images)	11	—	—	10
3D Still Camera	13	1 liter	0.5 kg	5,000
Recording Crystal (400 images)	13	—	—	10

VIDEO RECORDERS

Even though holovision typically becomes available at TL 10, producing holovideos still requires expensive, bulky equipment and high power at that tech level. Often, not until TL 13 are effective techniques devised for producing inexpensive holovideos with simple, lightweight equipment.

Two-Dimensional Video Recorder: Electronic recorder of visual images, either as single frames or sequential motion pictures using integral camera and lens system. Information is recorded on small visual tape cassettes for later viewing. At TL 13, recording is on holographic crystals. Each tape can hold 60,000 distinct images or one hour of motion pictures; crystals can hold 10 times that amount.

Description	TL	Volume	Weight	Price (Cr)
2D Video Recorder	8	3 liters	1.2 kg	900
Recording Tape (1-hour capacity)	8	—	—	2
Recording Crystal (10-hour capacity)	13	—	—	2

Three-Dimensional Video Recorder: The three-dimensional video recorder is barely portable at TL 13. More portable units are commonly available by TL 14, with TL 15 bringing forth the handheld 3-D recorder. All of these recorders use holocrystals for image storage. Separate power packs are not needed. Normal crystals hold 1 hour of information, high capacity crystals (TL 15 only) hold five.

Description	TL	Volume	Weight	Price (Cr)
3D Video Recorder	13	20 liters	15 kg	15,000
	14	8 liters	6 kg	20,000
	15	2 liters	2 kg	30,000
Recording Crystal (1 hour)	13	—	—	15
Hi-Capo Crystal (5 hour)*	15	—	—	50

*works only with TL15 recorder

WEAPON/AMMUNITION ACRONYMS LIST:

ACR: Advanced Combat Rifle
CBM: Cluster Bomblet Munition
CPR: Chemically Propelled Round
HE: High Explosive
HEAP: High Explosive, Armor-Piercing
KEAP: Kinetic Energy, Armor-Piercing
KEAPER: Kinetic Energy, Armor-Piercing, Explosive Round
MRL: Multiple Rocket Launcher
RAM: Rocket Assisted Munition
VRF: Very Rapid Fire

REBELLION SOURCEBOOK

The following errors have been identified for the **Rebellion Sourcebook**:

Page 6, Introduction, second paragraph (correction): The date for Dulinor's elevation to Archduke of Ilelish is 1104.

Page 10, Introduction, second paragraph (correction): The correct order of death should be Emperor Strephon, Empress Iolanthe, the Aslan Yerlyaruiwo ambassador, and then Grand Princess Ciencia Iphegenia.

Page 19, left column, third paragraph (clarification): Based on TNS items published in Challenge, xboats brought news of the assassination to Terra on 036-1117.

Page 19, right column, second paragraph (correction): The Corridor and Old Expanses Fleets were ordered to Zarushagar, not Core.

Page 26, Fleets of the Imperium (clarification): There are several duplications of fleet numbers:

Fleet Number	Location	Recommendations
108	Old Expanses M and N	*[could be same fleet]*
128	Reft E and Delphi M	Delphi M = 118
179	Ilelish F and L	Ilelish L = 189
193	Spinward Marches F and Deneb M	
212	Spinward Marches B and Vland O	
213	Spinward Marches C, Deneb B, and Corridor I	
214	Deneb A and Corridor H	
255	Corridor G and Lishun N	Lishun N = 256
260	Deneb N and Antares A	

Fleet numbers remaining unused are: 131, 303, 309, 310, 312, 315.

Page 27, Fleets, second paragraph (clarification): The breakdown of the Corridor Fleet given here does not match the map on the previous page; the 16th, 27th, and 70th Fleets are in Fornast sector, while the 41st Fleet is in Zarushagar sector.

Page 28, Imperial Navy Command Channels (clarification): The legend has been reversed; the dotted line indicates noble supervision, while the undotted line indicates naval orders.

Page 32, Depots of the Imperium (correction and clarification): The depot in Antares has been left off the map, and the word Depot in Corridor sector covers up Kaasu, the sector capital. The location of Usdiki in Gushemege has inexplicably moved.

Page 42, Factions of the Rebellion, right column (correction): The senior Duke of Daibei sector is Craig, not Horvath. The recently named Archduke of Deneb is Norris, not Morris.

Page 43, Friends and Enemies (omission): The Friends and Enemies table referred to, and the explanatory text, is missing. It was printed in the HIWG fanzine TIFFANY STAR #6, and created by Marc Miller and Mike Mikesh.

FRIENDS & ENEMIES (1117-1120)

	Luc	Mar	Dul	Ant	Dab	Vln	Str	Van	Nor	Asl	Vrg	Zho	Sol
Lucan	—	e	e	e	e	e	e	e	.	.	e	e	e
Margaret	e	—	e	.	f	.	.	f	.	.	e	e	e
Dulinor	e	e	—	e	f	e	e	.	.	.	e	e	e
Antares	e	.	e	—	f	.	.	.	.	.	.	e	e
Daibei	e	f	f	f	—	.	.	.	.	.	.	e	e
Vland	e	.	e	.	.	—	e	.	.	.	.	e	e
Strephon	e	.	e	.	.	e	—	.	.	.	e	e	e
Varian	e	.	.	.	.	.	.	—	.	.	.	e	e
Norris	.	.	.	.	.	.	.	.	—	e	e	e	e
Aslan	.	.	e	.	.	.	.	.	e	—	.	.	e
Vargr	e	.	.	.	.	.	.	.	.	.	—	.	.
Zhodani	e	.	.	.	.	.	.	.	e	.	.	—	.
Solomani	e	e	e	e	e	e	e	e	e	e	.	e	—

Legend: e = enemy, f = friend, . = neutral.

Lucan: Anyone that has not declared himself for Lucan is an enemy. Norris is an exception because he is too far and cut off from involvement.

Margaret: She vocally opposes both Lucan and Dulinor for their villainous acts that put them in power. Her sympathies are with the Brothers of Varian, although no formal alliances are established. Bzrk similarly opposes Lucan and Dulinor, which is cause for some goodwill from Margaret. But since both are contenders for the Throne, no friendship exists.

Dulinor: He will oppose anyone competing directly against him for the Iridium Throne. Dulinor and Daibei are friends. The remark on the 1120 map, "Clashes Between Dulinor and Daibei," is really an interesting one time event.

Antares: As a candidate for the Throne, Brzk has declared himself against both Lucan and Dulinor. In his own sector, his fleets actively resist the Vargr raiders, but he has hopes of winning their cooperation through diplomacy.

Daibei: This federation has two established enemies, Lucan and the Solomani. Because Brzk is in active combat with Lucan, and Margaret is similarly defending against the Solomani, these are considered friends where the Ilelish faction is not involved.

Vland: This faction has committed itself to a separate direction, effectively turning its back on the Third Imperium. Its competing with neighboring factions for territory, while ignoring other factions too remote for concern.

Strephon: He has no friends among other factions because of doubt regarding his validity. However, Strephon frequently finds favor among the Imperial worlds outside the spheres of control of the other factions.

Brothers of Varian: Margaret sympathizes with this faction and often lends it support. However, they do not necessarily extend friendship to Margaret in turn. Elements within this group may support different factions.

Norris: He will stay as uninvolved with the Rebellion as he can for as long as he can.

Aslan: The clans are generally uninvolved in the Rebellion except with the invasion of Deneb. However, the drama that resulted in the death of the Aslan ambassador on Capital has moved Hierate feelings decidedly against Dulinor.

Vargr: The aggressions of the Vargr are being directed against the Third Imperium, which is now represented by Lucan. They have no particular antipathy against individual factions.

Zhodani: All Imperial factions and the Solomani will continue to mistrust the Zhodani because of psionic prejudice. The same attitude is not returned although the Zhodani do see a unified Imperium and Deneb as a threat.

Solomani: All Imperial factions are technically at war with the Solomani, although only a few are involved at the front. The Aslan are regarded as enemies because of the disagreement about the overlap of the Solomani Sphere into the Hierate.

Page 43, right column, Devastated Worlds (correction): The sentence with "bludgeons were used as small asteroids" should read "small asteroids were used as bludgeons".

Page 44, fourth paragraph, last sentence (correction): "Dulinor sacked the man" should be "Lucan sacked the man".

Page 49, left column, third line (correction): In the phrase "When Prince Asan almost married Marian", the word "almost" should be deleted.

Page 54, Julian War, second paragraph (correction): The two references to Sharurshid should refer to Makhidkarun.

Page 56, Introduction, second paragraph (correction): "was wreaked with " should be "wracked with".

Page 65, right column, artwork (clarification): The artwork is for Antares, not Daibei.

Page 66, Introduction, second paragraph (correction): The "fire" started in 589.

Page 71, On the Eve of the Rebellion (correction): In the map legend, the capital of Corridor is Kaasu, and Dlan and Ilelish are reversed, and Cyril is not the sector capital of Reft sector (the portions of Reft sector are administered from Deneb and Verge). On the map, Usdiki has been moved from its location in *Atlas of the Imperium*.

Page 73, 1119, subheading (clarification): Borders and boundaries shown are as of 365-1119.

Page 74, 1120, subheading (clarification): Borders and boundaries shown are as of 365-1120.

Page 77, Imperial *Rampart*-Class Fighter (correction): See the errata for the fighter from **Imperial Encyclopedia** page 80, above.

Page 78, Vargr *Aek Naz*-class Battle Cruiser (correction): The following design by Clay Bush contains many corrections:

CraftID:	*Aek Naz* Battle Cruiser, Type BC, TL11, MCr14,277(d)
Hull:	27,000/67,500, Disp=30,000, Config=1SL, Armor=50E, Unloaded=504,208tons, Loaded=543,955tons
Power:	2,883/5,767, Fusion=259,500MW, Duration=28/84
Loco:	540/1,080, Maneuver=1; 1,350/2,700, Jump=4; NOE=150kph, Cruise=750kph, Top=1,000kph, Vacuum=1,200kph; Agility=0
Commo:	Radio=System, LaserCom=System, MaserCom=System
Sensors:	PassEMS=Interstellarx2, ActEMS=FarOrbitx2, Densitometer=High, NeutrinoDect=1Gw; ActObjScan=Rout, ActObjPin=Rout, PasObjScan=Form, PasObjPin=Form, PasEngScan=Rout, PasEngPin=Form

Off: PartAcc= xD0, Missile=x8 3, Blaser=xx4, Plasma=x50

Batt	S	1 20	20	2
Bear	S	1 18	18	2

Def: DefDM= +4, ArmorDM=–3
Repulsor=x4x, Sandcaster=xx7

Batt	4	20
Bear	4	18

Control:	Computer=5fibx3, Panel=Dynamicx40,550, Special=HUDx300, Env=basic env, basic ls, ext ls, grav plts.
Accomm:	Crew=304(30x10; bridge=18, engrng=107, maint=9, gunnery=62, flight=25, troops=30, command=41, steward=10, medical=2), staterooms=152; Subcraft=shuttle x3, cutter x4, enclosed air/raft x2
Other:	Cargo=26,556kl, Fuel=188,442kl, Magazine=10,000 missiles. PurificationPlant(24hrs), Scoops; ObjSize=Large, EmLevel=Strong

This Tech level 11 battle cruiser shows the problems inherent in creating a heavy-firepower starship at the lower levels of technology. The result is a series of tradeoffs. To fit the required equipment into a 30,000-ton hull, power plant fuel capacity was cut. To support jump-4, the maneuver drive was cut to 1G with no excess power for agility.

No inertial compensators. Battery-round is 250 missiles; magazine can carry 40 battery-rounds.

Page 79, Vargr *Foghoks*-class Heavy Cruiser (correction): The following design by Clay Bush contains many corrections:

CraftID:	*Foghoks* Heavy Cruiser, Type CA, TL11, MCr4,734(d)
Hull:	9,000/22,500, Disp=10,000, Config=4SL, Armor=45E, Unloaded=175,809tons, Loaded=198,695tons
Power:	1,050/2,100, Fusion=94,500MW, Duration=28/84
Loco:	990/1,980, Maneuver=4; 270/540, Jump=2; NOE=150kph, Cruise=750kph, Top=1,000kph, Vacuum=3,400kph; Agility=0
Commo:	Radio=System, LaserCom=System, MaserCom=System
Sensors:	PassEMS=Interstellar, ActEMS=FarOrbit, Densitometer=High, NeutrinoDect=1Gw; ActObjScan=Rout, ActObjPin=Rout, PasObjScan=Form, PasObjPin=Form, PasEngScan=Rout, PasEngPin=Form

Off: Missile=x70, Blaser=xx3

Batt	8	10
Bear	8	10

Def: DefDM= +4, ArmorDM=–1
Sandcaster=xx4

Batt	10	
Bear	10	

Control:	Computer=5fibx3, Panel=Dynamicx10,703, Special=HUDx150, Env=basic env, basic ls, ext ls, grav plts.

Accomm: Crew=151(15x10; bridge=13, engrng=38, maint=3, gunnery=41, flight=20, troops=10, command=20, steward=5, medical=1), staterooms=151; Subcraft=shuttlex2, air/raftx4

Other: Cargo=19,246kl, Fuel=52,002kl, Magazine=20,000 missiles. PurificationPlant(28hrs), Scoops; ObjSize=Avg, EmLevel=Mod

This Vargr cruiser demonstrates the even greater problems (when compared to the larger Aek Naz class) of lower tech levels when using smaller hulls. This ship sacrifices endurance and armor to achieve the jump levels and weaponry it needs.

No inertial compensators. Battery-round is 400 missiles; magazine can carry 50 battery-rounds.

Page 80, Common Imperial Transport (correction): The following design by Clay Bush contains many corrections:

CraftID: Common Imperial Transport, Type MP, TL15, MCr4,089(d)

Hull: 18,000/45,000, Disp=20,000, Config=3USL, Armor=40G, Unloaded=93,537tons, Loaded=243,387tons

Power: 347/695, Fusion=93,780MW, Duration=27/81

Loco: 360/720, Manuever=1; 720/1,440, Jump=3; NOE=75kph, Cruise=225kph, Top=300kph, Vacuum=1,200kph; Agility=0

Commo: Radio=Systemx2, LaserCom=Systemx2, MaserCom=Systemx3

Sensors: PassiveEMS=Interstellar, ActiveEMS=FarOrbitx2; ActObjScan=Rout, ActObjPin=Rout, PasObjScan=NA, PasObjPin=NA, PasEngScan=Rout, PasEngPin=NA

Off: Missile=x05, Blaser=xx7

Batt	15	12
Bear	15	12

Def: DefDM=+8, OptNucDamper=1

Sandcaster=xx5

Batt		30
Bear		29

Control: Computer=9fibx3, Special=LgHoloDisplayx4, HeadsUpHolox20, Env=basic env, basic ls, ext ls, grav plts, inertial comp

Accomm: Crew=87 (20x5; bridge=8, engrng=12, maint=1, gunnery=45, flight=5, command=11, steward=5, medical=0), HighPass=20, staterooms= 107, emerlow=4; Subcraft=ship's boat, air/raft

Other: Cargo=143,943kl, Fuel=84,385kl, Magazine=9,000 missiles. PurificationPlant(48hrs), Scoops; ObjSize=Large, EmLevel=Mod

Battery-round is 180 missiles; magazine can carry 50 battery-rounds.

Page 81, Imperial *SEH*-class Light Cruiser (correction): The following design by Clay Bush contains many corrections:

CraftID: *SEH* Light Cruiser, Type CL, TL15, MCr13,147(d)

Hull: 27,000/67,500, Disp=30,000, Config=1SL, Armor=50G, Unloaded=316,257tons, Loaded=334,059tons

Power: 2,900/5,800, Fusion=522,000MW, Duration=27/81

Loco: 3,240/6,480, Manuever=3; 1,620/3,240, Jump=3; NOE=190kph, Cruise=750kph, Top=1,000 kph; Agility=0

Commo: Radio=Systemx3, LaserCom=Systemx5, MaserCom=Systemx3

Sensors: PassiveEMS=Interstellarx2, ActiveEMS=FarOrbitx2, Densitometer=High, NeutrinoDect=10kw, EMM; ActObjScan=Rout, ActObjPin=Rout, PasObjScan=Rout, PasObjPin=Rout, PasEngScan=Simple, PasEngPin=Rout

Off:	MesonGun=J0x, ParticleAcc=xx2, Missile=x90, Blaser=xx7,			
	Batt S	1	15	10
	Bear S	1	14	9
	Plasma= xx3, Fusion=x04			
		5	4	
		5	4	

Def:	DefDM=+8, NucDamper=7, MesonScrn=6, ArmorDM=–3	
	Repulsor=x90, Sandcaster=xx6	
	Batt 1	12
	Bear 1	11

Control: Computer=9fibx3, Panels=HoloLinkx1,433, Special=LgHoloDisplayx12, Env=basic env, basic ls, ext ls, grav plts, inertial comp; Electronic Circuit Prodection

Accomm: Crew=177 (30x6; bridge=13, engrng=35, gunnery=52, flight=17, troops=30, command=24, steward=5, medical=1), staterooms=177; Subcraft=cutterx5, air/raft

Other: Cargo=292kl, Fuel=250,128kl, Magazine=300,000 missiles, PurificationPlant(26 hrs), Scoops, ObjSize=Large, EmLevel=Mod

The *SHE*-class light cruisers are named for recipients of the Imperial Starburst for Extreme Heroism. Battery-round is 750 missiles. Magazine can carry 40 battery-rounds.

Page 82, Imperial *Voroshilef*-class Battleship (correction): The following design by Clay Bush contains many corrections:

CraftID: Modified Voroshilef Battleship, Type BB, TL13, MCr87,749(d)

Hull: 180,000/450,000, Disp=200,000, Config=4SL, Armor=50F, Unloaded=2,281,332tons, Loaded=2,416,693tons

Power: 28,500/57,000, Fusion=5,130,000MW, Duration=17/52

Loco: 21,600/43,200, Manuever=3; 10,800/21,600, Jump=3; NOE=170kph, Cruise=750kph, Top=1,000kph, Vacuum=2,860kph, Agility=6

Commo: Radio=Systemx2, LaserCom=Systemx3, MaserCom=Systemx3

Sensors: PassiveEMS=Interstellar, ActiveEMS=FarOrbitx2, Densitometer=HighPen/100m, NeutrinoDect=100kwx2; ActObjScan=Rout, ActObjPin=Rout, PasObjScan=Diff, PasObjPin=Diff, PasEngScan=Rout, PasEngPin=Diff

Off:	Disint=Axx, MesonGun=03x, Missile=x80, Blaser=xx7, Fusion=x60				
	Batt S	8	146	A	30
	Bear S	5	95	7	20

Def:	DefDM=+13, NucDamper=3, MesonScrn=3, ArmorDM=–3
	Sandcaster=xx5
	Batt 20
	Bear 13

Control: Computer=9x3, Special=LgHoloDisplayx100, HeadsUpHolox40, Env=basic env, basic ls, ext ls, grav plts. No inertial comp. Electronic circuit protection.

Accomm: Crew=1,030 (200x5; bridge=40, engrng=462, maint=0, gunnery= 82, flight=63, troops=200, command=141, steward=34, medical= 8), staterooms=536, FrozenWatch=0, LowPass=0, LowBerths=410. Subcraft=40-ton fighterx20, shuttlex5, air/raftx4; one 40-ton launch tube.

Other: Cargo=22,045kl, Fuel=1,618,800kl, Magazine=182,500 missiles. PurificationPlant(38hrs), Scoops; ObjSize=Large, EMLevel=Strong.

This version includes replacement of the particle accelerator spinal mount by a Disintegrator-A, replacement of a TL 13 fusion power plant by a TL 15 version, and replacement of Model/7fib computers by Model/9fib computers.

Battery-round is 7,300 missiles. Magazine carries 25 battery-rounds.

.   **Page 83, artwork (clarification):** The artwork shown is a 50,000-ton Ghalalk-class heavy cruiser from Supplement 6, Fighting Ships; the larger Planet-class heavy cruiser is similar.

Page 83, Imperial *Planet*-class Heavy Cruiser (correction): The following design by Clay Bush contains many corrections:

CraftID:	Planet Heavy Cruiser, Type CA, TL15, MCr31,239(d)
Hull:	67,500/168,750, Disp=75,000, Config=2SL, Armor=50G; Unloaded=721,210tons, Loaded=770,099tons.
Power:	5,240/10,480, Fusion=943,200MW, Duration=29/87.
Loco:	5,063/10.125, Manuever=2, 6,075/12,150, Jump=5; NOE=190kph, Cruise=750kph, Top=1,000kph, Vacuum=2,120kph, Agility = 0.
Commo:	Radio=Systemx3, LaserCom=Systemx10, MaserCom=Systemx3
Sensors:	PassiveEMS=Interstellarx3, ActiveEMS=FarOrbitx3, Densitometer=LowPen/250m, HighPen/1kmx2, NeutrinoDect=10kwx3, EMSjammer=FarOrbitx3, EMM; ActObjScan=Rout, ActObjPin=Rout, PasObjScan=Rout, PasObjPin=Rout, PasEngScan=Simp, PasEngPin=Rout
Off:	MesonGun=J0x, PartAcc=x90, Missile=x93, Blaser=xx7, Fusion=x04

Batt	S	3	25 A	25	A
Bear	S	3	19 8	19	8

Def:	DefDM= +8, NucDamper=9, MesonScrn=9, ArmorDM=–3 Repulsor=x90, Sandcaster=xx7

Batt	C	30
Bear	9	21

Control:	Computer=9fibx6, Panels=HoloLinkx6,623, Special=LgHoloDisplayx20, HeadsUpHolox40; Env=basic env, basic ls, ext ls, grav plts, inertial comp; Electronic circuit protection.
Accomm:	Crew=323 (75x4; bridge=17, engrng=84, gunnery=55, flight=29, troops=75, command=43, steward=10, medical=10), FrozenWatch=164, staterooms=323, lowberths=164, emerlow=233; Subcraft=shuttlex3, cutterx4, air/raftx4, 50-ton fighterx50, one 50-ton launch tube.
Other:	Cargo=4,650kl, Fuel=631,984kl, Magazine=64,000 missiles; PurificationPlant(12hrs), Scoops; ObjSize=Large, EMLevel=Mod.

Battery-round is 1280 missiles. Magazine can carry 50 battery-rounds.

Page 84, Imperiallines Frontier Transport Type TI (correction): The following design by Clay Bush contains many corrections:

CraftID:	Frontier Transport, Type TI, TL15, MCr607(d)
Hull:	1,800/4.500, Disp=2,000, Config=4SL, Armor=40G, Unloaded=11,680 tons, Loaded=23,645 tons.
Power:	69/137, Fusion=12,330MW, Duration=30/90.
Loco:	135/270, Manuever=2, 81/162, Jump=2; NOE=190kph, Cruise=750kph, Top=1,000kph, Vacuum=2,120kph; Agility=0.
Commo:	Radio=Systemx3, LaserCom=Systemx3, MaserCom=Systemx3
Sensors:	PassiveEMS=Interstellarx3, Densitometer=HighPen/1km, NeutrinoDet=10kwx2; ActObjScan=NA, ActObjPin=NA, PasObjScan=Rout, PasObjPin=Rout, PasEngScan=Simp, PasEngPin=Rout
Off:	Missile=x03, Blaser=xx4, FusionGun=x03

Batt	3	3	1
Bear	3	3	1

Def:	DefDM=+9, OptNucDamper=1 Sandcaster=xx4

Batt	2
Bear	2

Control:	Computer=9fibx3, Special=LgHoloDisplay; Env=basic env, basic ls, ext ls, grav plts; No inertial comp, Electronic Circuit Protection.
Accomm:	Crew=16 (2x8; bridge=2, engrng=2, gunnery=2, flight=5, troops=2, command=1, medical=1), Staterooms=16, EmerLow=5; Subcraft=shuttle, air/raft.

Other: Cargo=11,371kl, Fuel=8,489kl, Magazine=225 missiles;
PurificationPlant(24hrs), Scoops; ObjSize=Avg, EMLevel=Mod.

The Imperiallines TI Frontier Transport is a common sight throughout the Imperium, operating on trade and commerce missions to worlds off the main trade routes.

No active sensors, no inertial compensators, only 9 hardpoints. Battery-round is 9 missiles. Magazine can hold 25 battery-rounds.

Page 85, Imperiallines Frontier Transport Type TJ (correction): The following design by Clay Bush contains many corrections:

CraftID: Frontier Transport, Type TJ, TL15, MCr797(d)
Hull: 1,800/4,500, Disp=2,000, Config=4SL, Armor=40G, Unloaded=14,337tons,
Loaded=19,973tons.
Power: 69/137, Fusion=12,330MW, Duration=30/90.
Loco: 135/270, Manuever=2, 189/378, Jump=6; NOE=190kph, Cruise=750kph,
Top=1,000kph, Vacuum=2,120kph; Agility=0.
Commo: Radio=Systemx3, LaserCom=Systemx3, MaserCom=Systemx3
Sensors: PassiveEMS=Interstellarx3, Densitometer=HighPen/1km,
NeutrinoDet=10kwx2; ActObjScan=NA, ActObjPin=NA, PasObjScan=Rout,
PasObjPin=Rout, PasEngScan=Simp, PasEngPin=Rout
Off: Missile=x03, Blaser=xx4, FusionGun=x03

Batt	3	3	1
Bear	3	3	1

Def: DefDM=+9, OptNucDamper=1
Sandcaster=xx4

Batt	2	
Bear	2	

Control: Computer=9fibx3, Special=LgHoloDisplay; Env=basic env, basic ls, ext ls,
grav plts; No inertial comp, Electronic Circuit Protection.
Accomm: Crew=16 (2x8; bridge=2, engrng=2, gunnery=2, flight=5, troops=2,
command=1, medical=1), Staterooms=16, EmerLow=5; Subcraft=shuttle,
air/raft.
Other: Cargo=4,664kl, Fuel=13,889kl; Magazine=225 missiles;
PurificationPlant(24hrs), Scoops; ObjSize=Avg, EMLevel=Mod.

The Imperiallines TJ Frontier Transport is externally identical to the Imperiallines TI Frontier Transport. Internally, the only difference is the installation of jump-6 drives and a reduced cargo capacity. While TI ships routinely cover Imperiallines territory conducting trade and commerce, the Type TJ ships use their immense jump capacity to serve as clandestine Imperial couriers.

No active sensors, no inertial compensators, only 9 hardpoints. Battery-round is 9 missiles. Magazine can hold 25 battery-rounds.

Page 88, Aslan *Ihatei*-class Transport Type NP (correction): The following design by Clay Bush contains many corrections:

CraftID: Ihatei Transport, Type NP, TL13, MCr9,295(d)
Hull: 45,000/112,500, Disp=50,000, Config=3SL, Armor=40F,
Unloaded=303,543tons, Loaded=539,120tons.
Power: 1,245/2,490, Fusion=112,050MW, Duration=30/90.
Loco: 3,375/6,750, Manuever=1, 2,700/5,400, Jump=3; NOE=170kph,
Cruise=750kph, Top=1,000kph; Agility=0.
Commo: Radio=System, LaserCom=System, MaserCom=System
Sensors: PassiveEMS=Interstellar, ActiveEMS=FarOrbitx2, NeutrinoDect=100 kwx2,
Densitometer=HighPen/100m; ActObjScan=Rout, ActObjPin=Rout,
PasObjScan=Diff, PasObjPin=Diff, PasEngScan=Rout, PasEngPin=Diff
Off: None. 50 empty turrets. Two 100-ton bays. Sufficient power for missile bays,
missile turrets and sand turrets.
Def: DefDM=+6, NucDamper=2.

<table>
<tr><td>**Control:**</td><td>Computer=7fibx3, Panels=HoloLinkx2,605, Special=LgHoloDisplayx5, HeadsUpHolox50; Env=basic env, basic ls, ext ls, grav plts. No inertial comp.</td></tr>
<tr><td>**Accomm:**</td><td>Crew=705 (50x14; bridge=13, engrng=46, maint=0, gunnery=8, flight=53, troops=50, command=28, steward=6, medical=501); Staterooms=705, LowBerths=10,000; Subcraft=shuttlex5, cutterx8, air/raftx10 (2 of 6 cutters in empty 100-ton bays.)</td></tr>
<tr><td>**Other:**</td><td>Cargo=222,610kl, Fuel=178,152kl; PurificationPlant(24hrs), Scoops; ObjSize=Large, EMLevel=Strong.</td></tr>
</table>

The *Ihatei*-class transport is one of several standard designs encountered in Aslan colonial fleets. Like all of them, it provides economical movement of colonists (in low berths) and their supporting heavy equipment and start-up supplies (about 1.5 tons per colonist).

No magazines specified in design: assume use of cargo space near bays and turrets. 441MW to power any weapons installed in bays and turrets.

Page 89, Aslan *Weakhto*-class Cruiser (correction): The following design by Clay Bush contains many corrections:

<table>
<tr><td>**CraftID:**</td><td>Weakhto Light Cruiser, Type CL, TL13, MCr5,400(d)</td></tr>
<tr><td>**Hull:**</td><td>9,000/22,500, Disp=10,000, Config=2SL, Armor=50F, Unloaded=172,582tons, Loaded=178,687tons.</td></tr>
<tr><td>**Power:**</td><td>1,000/2,000, Fusion=135,000MW, Duration=28/84.</td></tr>
<tr><td>**Loco:**</td><td>990/1,980, Manuever=4; 360/720, Jump=3; NOE=170kph, Cruise=750kph, Top=1,000kph; Agility=0.</td></tr>
<tr><td>**Commo:**</td><td>Radio=Systemx2, LaserCom=Systemx10, MaserCom=Systemx2</td></tr>
<tr><td>**Sensors:**</td><td>PassiveEMS=Interstellar, ActiveEMS=FarOrbit, NeutrinoDect=100kw, Densitometer=HighPen/100m; ActObjScan=Rout, ActObjPin=Rout, PasObjScan=Diff, PasObjPin=Diff, PasEngScan=Rout, PasEngPin=Diff</td></tr>
</table>

Off: PartAcc=x40, Missile=x93, Blaser=xx5, PlasmaGun=x04, Fusion=x04

Batt	1	2 A	A	5	5
Bear	1	2 A	A	5	5

Def: DefDM=+6, NucDamper=3, MesonScreen=1, ArmorDM=–3. Sandcaster=xx5

Batt	A
Bear	A

<table>
<tr><td>**Control:**</td><td>Computer=7fibx3, Panels=HoloLinkx1,185, Special=LgHoloDisplayx5, HeadsUpHolox20; Env=basic env, basic ls, ext ls, grav plts, inertial comp.</td></tr>
<tr><td>**Accomm:**</td><td>Crew=134 (10x14; bridge=12, engrng=25, maint=4, gunnery=52, flight=8, troops=10, command=18, steward=4, medical=1); staterooms=72; Subcraft=shuttlex2, air/raft.</td></tr>
<tr><td>**Other:**</td><td>Cargo=687kl, Fuel=77,400kl, PurificationPlant(48hrs), Scoops; ObjSize=Avg, EMLevel=Strong.</td></tr>
</table>

The *Weakhto* class cruiser is typical of those deployed by the Aslan ihatei fleets on colonization missions. Considered obsolete by contemporary Aslan standards, the ship has enough life in it to provide effective protection for the colony ships it escorts, and to provide scout and recon services as the fleet seeks new colony worlds.

Weakhto class ships are named for famous clan battles; weakhto means battle.

Battery-round is 230 missiles. Magazine can carry 25 battery-rounds.

Page 95, Final Climax, second paragraph (correction): Mora is misspelled Moran.

COACC

A number of errors occurred in the writing and publication of Close Orbit and Airspace Control Command. In addition, the rules were less than complete in a few areas. The following attempts to correct these errors and address these omissions.

Page 9, artwork (clarification): The drawing shown is that of the Akron (TL-5) non-rigid airship described on page 87. The drawing on page 87 is that of the Rio de Janeiro class luxury passenger dirigible. This design was submitted for inclusion in **COACC** but not published.

Page 11, Ypres (TL5) Primitive Fighter (correction): The correct technology level is TL 5, not 4. The correct endurance is 3.3 hours, not 8 hours.

Page 17, Laramie (TL7) Jet Fighter (clarification and correction): Missile bays are 200 kg missile bays. Each may hold one Semi Active Radar Homing missile or Active Radar Homing missile. Note that the maximum external stores for this aircraft are 9.45 tons.

Page 19, Reno (TL9) Fighter/Interceptor (clarification): Missile bays are 200 kg missile bays. Each may hold one Semi Active Radar Homing missile or Active Radar Homing missile.

Page 21, Abilene (TL8) Jet Fighter (clarification): Missile bays are 200 kg missile bays. Each may hold one Semi Active Radar Homing missile or Active Radar Homing missile.

Page 23, Daytona class Orbital Fighter/Interceptor (correction): Correct TL is 10, not 9.

Page 25, Nuremburg class Attack Aircraft (clarification): Maximum external stores= 1500 kilograms (reduced from 2000 kgs).

Page 29, Weapons mounts (addition): Purpose-built attack aircraft with no sweep back in the wing design may have more than two outboard hardpoints on each wing. All hard points may carry weapons as long as the total external weapons load does not exceed the limits stated in the rules.

Page 29, Weapons mounts (clarification): Note that the rules state aircraft NORMALLY have no more than one fuselage hardpoint. This does not rule out additional fuselage hardpoints such as those found on the Mexico City bomber design.

Page 31, Weight (addition): A purpose-built attack aircraft may carry up to 40 percent of its clean weight as external stores and its gross takeoff weight may be 140 percent of its clean weight.

Page 33, Weapon Mounts Table (addition): Add the following line:

Code	TL	Type	Drag	Weight	Capacity	Price (Cr)
Pre-Stellar	7	Missile Bay	(1)	0.20	1 200 kg air-to-air missile	3500

Page 37, Port Stanley (TL8) VTOL Medium Attack Aircraft (clarification): This aircraft may carry either a 2000 liter drop tank beneath its fuselage or two 1500 liter drop tanks on its inboard underwing hardpoints, not both.

Page 49, Seattle (TL8) All-Weather Heavy Attack Aircraft (correction): Delete the fuselage hardpoint. This aircraft correctly has only the four inboard wing hardpoints and a maximum external load of 6 tons.

Page 50, Semiactive Radar Homing Missiles (clarification): The task "To radar illuminate target aircraft" becomes Formidable if the range is greater than 60 squares at launch. If lock is maintained and the range to target is reduced to below 60 squares in subsequent combat rounds, the task reverts to Difficult.

Page 53, Mexico City (TL9) Bomber (correction): The correct name for this class is New York City. The Mexico City designation belongs to a class of heavy freighter described later in this book.

Page 55, Semiactive Radar Homing Missiles (clarification): The task "To radar illuminate target aircraft" becomes Formidable if the range is greater than 60 squares at launch. If lock is maintained and the range to target is reduced to below 60 squares in subsequent combat rounds, the task reverts to Difficult.

Pages 59 and 64, Dive Bombing Release Points (correction): This table should read as follows:

Range	Altitude (meters)	DM
0	500 – 1500	+2
1	1500 – 3000	0
2	3000 – 4500	−1

Units: *Range:* Squares from target square

Page 59, "To hit designated target area with bombing attack" (correction):
Referee: DM –1 if bombing with high-drag bombs.
  Page 67, Fuel Tanks (correction): "These 500-, 1500, and 2000-liter external tanks..."
  Page 68, Air-to-Air Missiles (correction): The range figures for the SARH and ARHM should read 6/90 rather than 6/60.
  Page 68, Air-to-Air Missiles (addition): Add this line to the Air-to-Air Missiles table:

TL	Type	Weight	Range Min/Max	Speed	Dam.	Cost (Cr)
8	Heavy ARHM	1000	10/300	15	44	10,000

Note: Aircraft intending to fire the Heavy ARHM must be equipped with Regional radar.

  Page 69, Gun Weights Table (addition): Weights are in kilograms. Machinegun belts hold 100 rounds; autocannon belts hold 50 rounds. Multibarrel autocannon are fed from drumlike ammunition hoppers. These hoppers typically between 500 and 1500 rounds, depending on the available carrying capacity of the aircraft design.

GUN WEIGHTS

Weapon	Weight per gun	Weight per belt	Weight per round
Medium Machinegun	9.5	2.5	—
Light Machinegun	5.5	2.5	—
Heavy Machinegun	15	10	—
20mm autocannon	200	20	0.4
20mm 3-barreled autocannon	220	—	0.4
20mm 6-barreled autocannon	310	—	0.4
30mm autocannon	240	40	0.8
30mm 6-barreled autocannon	370	—	0.8

  Page 87, Akron Airship (correction): The airship pictured in the illustration is the Rio de Janeiro rigid dirigible. The Akron is pictured on page 9. The Rio de Janeiro class specifications are:

CraftID:	*Rio de Janerio* Rigid Airship TL 5, MCr 16.15
Hull:	13,333/33,333, Disp=4000, Vol=200,000 cubic meters, EnvelopeWeight=176tons, UsableLift=66tons, Airframe=Simple.
Power:	10 X 4/10 IntComb=0.25Mw, Duration=103 hours, 20 minutes
Loco:	Basic Propeller (Diesel), Thrust=20 tons, Cruise=90kph, Top=120kph, Agility=0
Commo:	Radio=Continental
Sensors:	None
Off/Def:	None
Control:	Simple
Accomm:	Crew=20 (3 Pilots, 3 Co-Pilots, 3 Navigators, 3 Engineers, 6 Flight Engineering Technicians, 3 Stewards, 1 Cook) in 6 double and 3 quadruple staterooms, 30 passengers in 15 double staterooms. Note: Crew listed above is sufficient to staff ship with three watches every 24 hours. Flights of less than 12 hours would only require one third the number of flight crew; however number of stewards would remain the same.
Other:	Cargo=11 tons, Fuel=15.5kl

This giant of the air is the size of many star liners. It carries its passengers in luxurious comfort on voyages up to 9,000 kilometers across Tech 5 worlds. Until the introduction of transcontinental airliners at Tech Level 6, this and similar airships are the only means of air transportation between the continents of many worlds.

  Page 94: Assignments Table (correction): The Assignments Table does not agree with the Assignment Resolution table. The Assignments Table should read:

Die	Atmosphere/Orbit	Ground
2	Strike	Missiles/Air Defense/Hospital
3	Strike	Missiles/Air Defense/Hospital
4	Superiority	Training
5	Transport/Support	Support/Base//Air Police/Security//Base
6	Training	Support/Base//Air Police/Security//Base
7	Transport/Support	Training
8	Training	Support/Base//Air Police/Security//Base
9	Strike	Training
10	Superiority	Missiles/Air Defense/Hospital
11	Special Assignment	Special Assignment
12	Special Assignment	Special Assignment

KNIGHTFALL

The following errata have been identified for **Knightfall**:

Page 11, Patching a Breach (correction): See the errata for the **Players' Manual**, page 90. The task for applying a patch to a breached vacc suit should be:

To apply a patch to breached vacc suits, battle dress or combat armor:
Routine, Vacc Suit or Battle Dress, Dex, 2 sec

Page 20, Active Sensor Pinpoint (correction): The default time for the sensor task is 10 seconds.

HARD TIMES

There is a single identified erratum for **Hard Times**:
Page 81, Fer-de-Lance class Destroyer (correction): Hull should be *900*/2,250, not 00/2,250.