Special Supplement 4
Lost Rules of

TRAVELLER

Science-Fiction Adventure in the Far Future

Far Future Enterprises

ROLE-PLAYING
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Lost Rules of Traveller

It has been over thirty years since Game Designers' Workshop first released **Traveller** to the gaming public. Due to the incredible playability of that original edition and its continued success, Far Future Enterprises released a series of Classic **Traveller** reprints, to allow gamers who were never able to purchase those original items to get them easily.

One of the problems with such a task is the question of what editions to use in the reprints. For example, the Classic **Traveller** core rules actually exist in three different rulesets. Logic would suggest using the most recent released edition; but in this case, there are rules elements of interest to the collector which would not be included.

The original 1977 release of **Traveller** contained three books – *Characters and Combat*, *Starships*, and *Worlds and Adventures*. This set of rules contains everything needed to play Traveller. However, in 1981, GDW took advantage of a need to reprint the core rules to also address and clean up the rules. This "second edition" actually adds quite a bit to the rules, but there are also some items dropped from the rules. This second edition also incorporated errata printed in *Book 4 – Mercenary* for the original 1977 edition.

This cleaned up "second edition" would be used for producing *The Traveller Book* in 1982, along with some additional material, including a special introduction for new players, two adventures, and additional details on what was becoming the "official Traveller universe" (OTU). Some additional rules did slip into *The Traveller Book* that appear nowhere else.

Finally, in 1983, GDW released *Starter Traveller*, intended at giving a younger audience a streamlined and simpler set of **Traveller** rules. This release dropped some of the more complicated rules, but added a different starship combat system (using range bands, much like the personal combat system, as opposed to vector movement) which many consider a great improvement on the original. Except where noted, *Starter Traveller* uses the 1981 edition rules.

Finally, other minor Classic **Traveller** rules appeared in other releases (notably *Mayday, Snapshot,* and the *Alien Modules*) which some referees and players of the Classic **Traveller** rules will find useful without adopting the game models in those products. This document presents a collection of rules elements for purchasers of FFE's *The Classic Books 0-8* to give them access to these "lost rules" not available in the Classic Reprints collection.

CHARACTERS (Book 1)

Acquiring Skills and Expertise (1981): The scout service is an exception to the normal eligibilities. Because the service has no rank or promotion, scout characters do not become eligible for extra skills during their careers. Instead, however, scouts receive two skills for each term of service, including the first.

Survival Optional Rule (1981): If the referee or player so indicates prior to character generation, then a failure of the survival roll can be converted to injury. The character is not dead, but instead is injured, and leaves the service (after recovery) having served only two years of the four year term.

Acquired Skills Tables (1977): On the Service Skills table, and the unrestricted Advanced Education table, the 1977 edition had several differences. For Marines and Army characters, ATV was offered instead of Vehicle on both tables. For Scout characters, Air/Raft was offered rather than Vehicle on both tables. For Merchant characters, +1 Stren was offered instead of Vehicle on the Service Skills table. For Other characters, Forgery was offered instead of Vehicle on the Service Skills table.

Aging (The Traveller Book): *The Traveller Book* added a section to the Aging rules.

Disability: Characters may quit adventuring when they reach age 66, if any one physical characteristic (strength, dexterity, or endurance) permanently equals 1, or if the sum of all three physical characteristics equals 10 or less. When a character quits adventuring, he or she leaves the game, taking along all money and possessions. The player is then free to generate a new character. Quitting due to disability is available to allow players to maintain reasonably competent characters.

Skills and Benefits: While several descriptions are different, the only skills with different mechanics are:

Bribery (1977): Bribery was not based on rolling less than the Law Level of the world, but on a basic throw of 8+, so the DMs listed were changed (no expertise was –5, per level of expertise +1, and strong friend +2).

Ship's Boat (1977): The original explanation of the Ship's Boat skill had some interesting additional details. For extremely bad weather, the DM stated was –3. In addition, the skill explained that small craft could only lift off from or descend to worlds of size 7 or less. Emergency landings must be made when landing a crippled craft, landing on a world of size 8 or greater, or due to bad weather. Throw 10+ for the craft to be utterly destroyed in the crash. Throw 6+ for the craft to be wrecked. DM: –1 per level. Passengers in the craft individually roll for injury, throwing Strength or greater to be injured. DM: –1 per level of expertise of the character piloting the craft.

Vehicle (The Traveller Book): The Traveller Book organizes vehicles in a different way than the 1981 LBB: The groups available are: Aircraft (select Helicopter, Propeller-driven Fixed Wing, or Jet-driven Fixed Wing), Grav Vehicle, Tracked Vehicle, Wheeled Vehicle, and Watercraft (select Small Watercraft, Large Watercraft, Hovercraft, or Submersible). In the case of Aircraft and Watercraft, other similar vehicles within the group may be operated by the individual at skill level minus 1.

COMBAT (Book 1)

Combat Procedure (The Traveller Book): *The Traveller Book* contains a much more detailed procedure.

COMBAT PROCEDURE

1. Determine facts of the encounter.
   - A. Which party has surprise?
   - B. Initial encounter range?
   - C. Escape or avoidance?
2. Begin combat round.
   - A. Individual movement status.
   - B. Individual targets and attacks.
       1) Attacker's DMs.
       2) Defender's DMs.
   - C. If attack succeeds, determine wounds inflicted at end of the round.
   - D. Roll for morale if unit has taken 25% casualties.
   - E. Begin new round (go to 2).
3. When combat ends, attend to the wounded and regroup forces.

Terrain DMs (1977): There are two different terrain entries in the 1977 edition table that do not appear in later editions:

TERRAIN DMs

Beach, Shore, Riverbank	+1
Suburb	−2

Encounter Ranges (Starter Traveller): In *Starter Traveller*, row 13 (Very Long) is removed, and the table is noted: Rolls of greater than 12 equal 12; rolls less than 1 equal 1. Since rows 12 and 13 were both Very Long, the change is quite logical.

Escape and Avoidance (The Traveller Book): The rule in *The Traveller Book* gives a DM of −1 if close or short range.

Movement (1977): The original 1977 rules for movement between range bands, as well as the distances between range bands were slightly different in some places.

Close Range: A combatant may elect to move closer to the enemy during the combat round. The movement table indicates the relative 'size' of each range, stating the number of combat rounds in which a character must state that he is closing range before he actually achieves the next closer range. If both parties, or members of both parties, are closing range, the next closer range is achieved when the sum of the rounds spent doing so corresponds to the total required by the table. Characters may run (or ride animals or vehicles) at approximately double speed. Running is considered an expenditure of energy and is counted as a combat blow (reducing total endurance points and prohibiting the character from attacking in the round). See the Endurance rule.

Open Range: A combatant may move away from the enemy by opening range in much the same manner as he would close range. The movement table indicates the number of rounds which must be spent in one range before moving to the next range.

MOVEMENT

Close	1
Short	1
Medium	3
Long	4
Very Long	5

If parties consist of more than one member, each member may decide for himself what his movement will be for a round. Movement in closing or opening range need not be consecutive rounds (a character could close for three rounds, stand and shoot for a few rounds, and then continue to close). A character who opens after closing negates one round of closing for each round of opening he performs (and vice versa).

A character who opens range with the enemy while at very long range has moved out of range and left the field of battle.

As an example of movement, the movement table indicates that long range is 4 rounds "deep" (it requires a character to close or open for four rounds before he is at the next range). A character would thus be required to state that he is closing for four rounds before he could be at medium range. If his opponent were also closing, each would spend 2 hours at long range before the range became medium range. If both characters were running toward each other, each would spend one round at long range before the range became medium (running counts as double speed). If one character closes and one character opens, the net change is zero, and each can continue to do so indefinitely without the range changing.

Characters in the same band are at close range. Those adjacent to a band containing a character are at short range to that character. Those 2 to 5 bands away are at medium range; those at 6 to 9 bands away are at long range. Characters at 10 to 14 bands away are at very long range. A character who moves 15 bands away from any other character is out of range, and has escaped.

Characters may move one band per combat round, two bands if running.

Movement (1981): For movement, distances are measured in range bands, each representing approximately 25 meters. The range band table gives the size of each of the combat ranges in range bands. For example, a character 4 range bands away from another character is at long range with respect to the other character.

In order to provide a simple display of ranges in an encounter, it is suggested that they be mapped out on a line grid (as shown in the diagram below). Ordinary lined paper serves this purpose quite well. Each band on the grid represents one range band. At the beginning of an encounter, markers representing each of the members of the encountering party and those encountered are placed in bands separated by a distance corresponding to the encounter distance. In subsequent rounds characters may move to close or open the range.

Close and short range are each less than a complete range band in size. To indicate that two characters are at close range, place their markers touching each other. All other characters in the same range band are at short range.

Characters may move one band per combat round if walking or two if running; animals may move faster, as covered in Book 3.

The line grid is intended to provide a simplified way of taking care of range determination and sacrifices some realism for the sake of play ease. The referee may

choose to expand this system to a square or hexagonal grid to take maneuver and actual position into account.

Before each combat round, each character must state his or her movement status. The four possible movement statuses are evade, close range, open range, and stand.

Evade: A combatant, at any range, may state evade as a status. The person may not make any attack (no swings, blows, or shots are allowed) during the combat round and may not use his weapon to parry or block (see expertise); he or she receives an advantageous DM in the defense, based on range from the attacker (–1 if at short or close range, –2 if at medium range, –4 if at long or very long range).

Close Range: A combatant may elect to move closer to the enemy during the combat round. Normally, a character may walk, moving one range band per combat round, or run (or ride animals or vehicles) at approximately double speed. Running is considered an expenditure of energy and is counted as a combat blow (reducing total endurance points and prohibiting the character from attacking that round). See the endurance rule. Moving from short to close range is counted as moving one range band.

Open Range: A combatant may move away from the enemy by opening range in much the same manner as he would close range. However, he may move from close range to one band away in one move without running.

Stand: A combatant may elect not to move during a combat round.

All movement is performed simultaneously. If parties consist of more than one member, each member may decide for himself what his movement will be for the round. Any character who moves more than 20 bands away from the nearest enemy character is out of range and has escaped.

COMBAT RESOLUTION (Book 1)

Wounding and Death (1977): A small change due to how weapon damage was handled in the 1977 LBB:

A further modification after the D indicates the specific number to be added to (or subtracted from) the die roll total. For example, 2D+4 indicates the roll of two dice (perhaps achieving 4 and 5, totaling 9) and four added to that (giving a total wound result of 13). A wound result of zero (or less) has no effect on a character.

Morale (1977/Starter Traveller): The point in time when a party must begin making morale throws was 25% in the 1977 edition. This was changed to 20% in the 1981 rules, but returned to 25% for Starter Traveller.

COMBAT EQUIPMENT (Book 1)

Folding Stocks (1977): When a folding stock is folded, the weapon is less accurate (DM –1 at all ranges). When the stock is extended, there is no effect.

SPECIAL CONSIDERATIONS (Book 1)

Throwing Blades (Starter Traveller): Polearms (spears, pikes , and halberds) may be thrown using this procedure, but the thrower must have a Strength characteristic equal to triple the weight of the thrown weapon, in kilograms. Throwing a blade or polearm counts as a combat blow or swing. (This was in *The Traveller Book*, with "in kilograms" added by *Starter Traveller*.)

Weapon Length Effects (1977): Polearms (spear, halberd and pike) and similar long weapons use the Short range modifier only on the first combat round at short

range. Thereafter, use the Close range modifier (even if the actual range remains Short). *Note: the 1977 rules only applied this to the pike. Snapshot applied this rule to all weapons longer than 3000mm.*

Reloading (The Traveller Book): Technically, guns reload themselves after each shot. However, when the magazine capacity of a gun is exhausted, then the shooter must reload the gun with a fully loaded magazine. Unless otherwise stated, the process of reloading a gun with a full magazine takes one combat round, during which time the shooter is treated as evading. Revolvers do not use magazines, and so take two combat rounds (one combat round if not simultaneously evading) to reload.

Empty magazines are, of course, reusable. Ammunition for such magazines can be purchased for approximately half the price of a full magazine. The tedium of reloading empty magazines requires that it be done at leisure, rather than in combat. The process takes several minutes for each magazine.

Laser carbines and laser rifles do not use cartridges; their power packs must be recharged upon being exhausted. Such a laser weapon may be returned to service by replacing the power pack. Recharging a spent power pack requires approximately an hour at a high-energy power source. When done commercially, there is a cost of Cr200 or Cr300 for the service. Generally, such power packs can be recharged at a ship's power plant at no cost.

Armor (The Traveller Book): With the exception of reflec, no armor may be worn with another type of armor. If reflec is worn in conjunction with another armor type and the wearer is attacked, the better type of armor provides the DM.

Darkness and Night (The Traveller Book): Poor lighting conditions may restrict the ability of an individual to see and attack. Total darkness restricts engagements to close and short range. Gun attacks at greater than short range are subject to DM of –9. Partial darkness (moonlit night, distant illumination, or other weak light sources) reduces visibility range to medium, and attacks with guns are subject to DM of –6.

Electronic sights eliminate negative DMs due to darkness and poor lighting.

Cover and Concealment (The Traveller Book): Cover is any solid object between an attacker and defender capable of protecting the defender from a weapon attack. Concealment is any object that prevents viewing or sighting of the defender. Cover may also be concealment, concealment is not necessarily cover.

Targets are considered under cover if they are behind a solid object which a shot cannot penetrate (such as a wall, rock, or heavy bulkhead). An individual under cover cannot be attacked; an individual in concealment cannot be attacked unless the attacker has some reason to shoot into the area. A target may be partially concealed by walls, objects, atmospheric conditions, or darkness. Targets are considered concealed if they cannot be viewed by an attacker. If fully concealed, a target cannot be attacked.

Individuals who attack from cover become visible and may themselves be attacked; because they retain partial cover they are eligible for a defending DM of –4. Individuals who attack from concealment provide reason to believe they are present, and may be attacked; because they remain partially concealed, they are allowed a defending DM of –1.

Zero Gravity (The Traveller Book): Virtually all weapons have recoil (except laser carbines and laser rifles) and in a zero-G environment, this recoil can disorient or render helpless individuals not trained to compensate for it. When fighting in a zero-

G environment, any individual has a chance of losing control of his or her movement/position each combat round. Throw 10+ to avoid losing control.

ZERO GRAVITY DMs

If firing a weapon	–4
If using a handhold	+5
If performing a swing or blow	–6
If Dexterity 9+	+2
If Dexterity 11+	+2

Using a handhold reduces Dexterity (for the above DMs, and for advantageous or required Dexterity) by –4.

Individuals who lose control may not fire until they have reoriented themselves and regained control. Roll 10+ in each subsequent combat round; DMs as above except handholds and weapons may not be used.

A much more extensive list of modifiers for Zero-G appears in Beltstrike.

Archaic Firearms (1981): The guns shown previously are those available in interstellar societies and which travelers granted free choice might want to purchase. Firearms, however, are also available at lower tech levels in less developed forms. Adventurers on primitive worlds may encounter them, and may conceivably be required to use them. A few types of archaic firearms are given below. Prices are extremely variable.

Hand Cannon (5000 grams; TL 2): Literally a small, hand-held, muzzle-loading cannon, it takes 2 rounds to load with powder and a ball, and is fired by holding a flame to the touchhole. It fires as body pistol, but may not fire at close range.

Flintlock Musket (4000 grams, TL3): A long smoothbore weapon relying on sparks struck from a flint to ignite the powder. It requires 1 round to reload during which time the firer may not evade, and when fired may misfire (roll 4+ to avoid); if a misfire occurs, the weapon will not fire, but the firer may attempt to fire it in the next round. The musket fires as a carbine, but may not fire at very long range.

Percussion Rifle (4000 grams, TL4): A muzzle-loading rifle relying on an explosive cap to ignite the powder. Loading is the same as for a musket but there is no chance of a misfire. The weapon fires as a rifle.

Muzzle-loading Pistol (1500 grams, TL 3 or 4): A single-shot pistol, either flintlock or percussion (with the same loading characteristics as described above). It fires as a body pistol.

Percussion Revolver (1000 grams, TL 4): A six-shot revolver, with each chamber individually loaded with powder, ball, and a percussion cap. The gun may be reloaded in 8 rounds, or the cylinder may be detached and another, previously loaded cylinder may be put on in 2 rounds (cylinder weight: 300 grams). It fires as a revolver. All these weapons require that the owner also carry gunpowder and properly sized lead balls; percussion weapons also require a supply of percussion caps.

WEAPON DAMAGE (Book 1)

The 1981 rules cleanup made changes to the Wound Inflicted column of the Range Matrix table in *Characters and Combat*. Note that the 1981 LBB showed Cutlass=2D and Body Pistol=3D; these were later corrected in *The Traveller Book* as follows:

Attacker's Weapon	Wound Inflicted (1977)	Wound Inflicted (TTB)
Hands	1D	1D
Claws	1D+3	1D
Teeth	2D–3	2D
Horns	2D–5	2D
Hooves	2D–6	2D
Stinger	3D–6	3D
Thrasher	2D+2	2D
Club	2D–3	2D
Dagger	2D–3	2D
Blade	2D	2D
Foil	1D+4	1D
Cutlass	2D+4	3D
Sword	2D+1	2D
Broadsword	4D	4D
Bayonet	3D	3D
Spear	2D+2	2D
Halberd	3D	3D
Pike	3D	3D
Cudgel	2D	2D
Body Pistol	3D–8	2D
Automatic Pistol	3D–3	3D
Revolver	3D–3	3D
Carbine	4D–8	3D
Rifle	3D	3D
Automatic Rifle	3D	3D
Shotgun	4D	4D
Submachinegun	3D–3	3D
Laser Carbine	4D	4D
Laser Rifle	5D	5D

WEAPON MATRIX (Book 1)

Dagger (The Traveller Book): The modifier for Dagger against Combat armor was changed from –5 to –7. The modifier for Dagger at Short range was changed from –1 to +2.

Foil (Starter Traveller): The modifier for Foil against Combat armor was changed from –8 to –6.

Body Pistol (1977): The modifier for Body Pistol against Reflec should be –4.

Carbine (The Traveller Book): The modifier for Carbine against Ablat was changed from +1 to –1.

Rifle (The Traveller Book): The modifier for Rifle against Cloth was changed from –2 to –3, the modifier for Rifle against Reflec was changed from +3 to +2, and the modifier for Rifle against Combat was changed from –4 to –5.

Submachinegun (The Traveller Book): The modifier for SMGs at Long range was changed from –6 to –3.

Ablat (1977): Each time that laser fire hits ablat armor, it decreases the ablat's DM by 1.

WEAPONS TABLE (Book 1)

Rifle (1977/1981): The Advantageous Dexterity DM for rifles is changed from +2 in 1977 to +1 in the 1981 edition.

TRAVELLING (Book 2)

Interplanetary Travel (1977): Perhaps the greatest difference between the 1977 and 1981 editions is the switch from miles to kilometers. For those interested in the conversion, 1G = 2000 miles per (10 minutes)².

Interstellar Travel (1977): The 100 diameter rule is perhaps better explained in the 1977 edition: "Once a starship moves to more than 100 planetary diameters from all worlds, it may activate its jump drive and move to another star system."

Starship Malfunctions (1977): Certain procedures, situations or mistakes may result in mishap or accident to a starship; these may well involve the passengers on such a ship.

In the 1977 edition, the mechanics of Contaminated Fuel and Lack of Mainten-ance are separated from Drive Failure (which works like it does in the later edition).

Contaminated Fuel: The use of unrefined fuel, often forced by circumstance, and about as often the result of false economy by a captain, can cause drive failure. If unrefined fuel is used, there is a chance that the drive will fail while in flight (throw 11+ for failure to occur, throwing once per jump in which unrefined fuel is used. DM +1 for each jump made, until the drives are flushed, which takes about a week at any starport).

Lack of Maintenance: Ignoring annual maintenance requirements can result in drive failure. Throw once per jump made after annual maintenance has been skipped: a result of 12 indicates drive failure.

Drive Failure: When a drive fails, due to any reason, all three sections (maneuv-er, jump, and power plant) are affected. They may be temporarily repaired by engi-neer crew members (throw 10+ to repair, once per day; allow DM of +level of engi-neering expertise on the throw). More comprehensive repairs are then made at the next starport by trained personnel.

Starship Malfunctions (1981): As with any mechanical device, a starship can mal-function. The two major malfunctions are drive failure and misjump. The primary influencing factors are unrefined fuel and lack of maintenance.

Refined fuel is available at starports at about Cr500 per ton; unrefined fuel is available at starports for Cr100 per ton, or can be skimmed from gas giants for free. In addition, water can be taken from oceans or lakes (if there are any on the world) and used as unrefined fuel. Military and quasi-military starships often use unrefined fuel because it is more available, and because their drives are specially built to use it. Commercial ships sometimes use unrefined fuel because it is cheaper.

Starships require continuing maintenance as they operate, and an annual main-tenance overhaul to keep them in top running order. Ships which are undercrewed and do not carry enough dedicated or full-time skilled engineers and those which avoid or delay their annual maintenance run the risk of malfunction.

Drive Failure: Each week, throw 13+ for drive failure; apply the following DMs: +1 if using unrefined fuel (and not equipped to do so), +1 per engineer missing from the crew list, +1 per week past annual maintenance overhaul date.

If a malfunction occurs, then throw 7+ for each drive in use (jump, maneuver, power plant) to determine which actually fail, (if any). Failed drives cease operations completely; maneuver drives will no longer thrust, jump drives will fail and indicate that they cannot support jump; power plants stop delivering power. Batteries will provide life support and basic lighting for 1D days. Throw 10+ per day of repair attempt with DM +engineering skill of the attending engineers to fix them temporarily. More complete repairs must be made at a starport by qualified personnel.

Drive Failure (Starter Traveller): In *Starter Traveller*, the DM for being past the annual maintenance overhaul date is changed from +1 per week to +1 per month.

Misjump (1977): For all jumps (in any situation), throw 12+ for a jump drive malfunction resulting in a misjump. A misjump involves a considerable random jump. Throw one die to determine the number of dice thrown (1 to 6). Throw that number of dice to determine the number of hexes long the jump is. Throw one die to determine in which of the six directions on the hex grid the jump is made.

MISJUMP DMs

Jump initiated within 100 diameters of a world or star	+5
Ship using unrefined fuel (except military or scout ships)	+3
Ship using refined fuel	−1
Ship operating beyond required date for annual maintenance	+2

Misjump (1981): Each time the ship engages in a jump, throw 13+ for a rnisjump; if the result is 16+, then the ship is destroyed.

A misjump is an unpredictable random jump. Throw one die to determine the number of dice thrown (1 to 6); throw that number of dice to determine the number of hexes in length the misjump is. Then throw one die to determine the direction of the misjump (one of the six directions possible on the hex grid). Finally, throw one die to determine the number of weeks spent in jump space before the ship re-emerges at its new location.

MISJUMP DMs

Using unrefined fuel (not equipped to do so)	+1
Within 100 planetary diameters of a world	+5
Within 10 planetary diameters of a world	+15
Military ship	−1
Scout ship	−2

STARSHIP REVENUE (Book 2)

The 1981 rules cleanup made changes to the Cargo Table and Passenger Table in *Starships* as follows:

Cargo (1977): The referee should determine all worlds accessible to the starship (depending on jump number), and roll (for each such world) a number of dice equal to the Population number of the destination. Each die represents one shipment, expressed in multiples of 5 tons. Thus, roll ten dice for the potential shipments to a population 10 world; should all dice show 6 (admittedly an unlikely event), there are 10 thirty-ton (die 6 × 5 tons = 30) shipments awaiting transportation. A starship can

carry as many shipments as will fit in the hold, but may not break down the size of any specific shipment. Thus, a starship with a cargo hold capacity of 85 tons could accept two of the above shipments, but not a third as it would not fit.

Cargo is normally shipped at a rate of Cr1,000 per ton. Starship owners may purchase goods locally and ship them at their own expense, speculating that they can later sell the items at sufficient increase to make a profit.

Cargo (1981): The referee should determine all worlds accessible to the starship (depending on jump number), and roll for each such world on the Cargo Table. He should roll to determine the number of major, minor, and incidental cargos available on the world of origin; modifiers take into account the world of destination. After rolling for the number of cargos, roll one die for each cargo to determine its size. Multiply the die roll for major cargos by 10, minor cargos by 5, and incidental cargos by 1 to determine the number of tons in each.

For example, if a ship is on a population 6 world, going to a population 3 world with a tech level 3 less than the current world, the referee rolls one die for major cargos; he rolls a 4 {+2 from the table, –4 for the low population of the destination, +3 for the tech level difference), giving five major cargos. He then rolls one die for each cargo and multiplies each result by 10 to determine their individual tonnages.

Each cargo is a distinct shipment and cannot be subdivided, but the ship may accept or reject specific cargos based on the best fit within the cargo hold. All cargos are carried at Cr1,000 per ton. Starship owners may purchase goods locally and ship them at their expense, speculating that they can later sell them at a profit.

CARGO

World Pop Digit	— — World of Origin — — Available at		
	Major	Minor	Incidental
0	—	—	—
1	1D–4	1D–4	—
2	1D–2	1D–1	—
3	1D–1	1D	—
4	1D	1D+1	—
5	1D+1	1D+2	—
6	1D+2	1D+3	1D–3
7	1D+3	1D+4	1D–3
8	1D+4	1D+5	1D–2
9	1D+5	1D+6	1D–2
A	1D+6	1D+7	1D

DMs for destination world:
If population 4–, –4.
If population 8+, +1.
If red zone, no cargo.
If amber zone, no major cargo.
TL: add (or subtract) difference between origin and destination.

Passengers (1977): After a starship has accepted cargo for a specific destination, passengers will present themselves desiring transport to that destination; the number and type of such individuals is dependent on the populations of the originating world and the announced destination. Consult the passenger table: roll the number

of dice specified in the originating world column (3D-1D, for example, indicates that three dice are rolled, and from that total, the result of another one die roll is subtracted). From the result of this roll, add or subtract the stated number in the destination column. Separate columns are presented for high passage, middle passage, and low passage.

PASSENGER TABLE

	Originating World			Destination		
Pop	High	Middle	Low	High	Middle	Low
0	—	—	—	—	—	—
1	—	—	—	—	—	—
2	1D–1D	1D–1D	3D–1D	–1	–2	–4
3	3D–2D	2D–2D	3D–1D	–1	–1	–3
4	3D–3D	3D–3D	4D–1D	–1	–1	–2
5	3D–2D	3D–2D	4D–1D	0	–1	–1
6	3D–2D	3D–2D	3D	0	0	–1
7	3D–2D	3D–2D	3D	0	0	0
8	2D–1D	3D–2D	4D	+1	0	0
9	2D–1D	2D–1D	4D	+1	+1	0
A	2D–1D	2D–1D	4D	+1	+1	+2

Passengers (1981): After a starship has accepted cargo for a specific destination, passengers will present themselves for transport to that destination. The passenger table is used to determine the number of passengers desiring passage to the announced world based on the origin world's population and on the destination world's population and travel zone status. Roll the dice specified (for example, 3D–1D indicates that three dice are rolled, and the result of another one die roll is then subtracted). Apply any indicated DMs.

PASSENGERS

World Pop Digit	Available at — — World of Origin — —		
	High	Middle	Low
0	—	—	—
1	—	1D–2	2D–6
2	1D–1D	1D	2D
3	2D–2D	2D–1D	2D
4	2D–1D	2D–1D	3D–1D
5	3D–1D	3D–2D	3D–1D
6	3D–2D	3D–2D	3D
7	3D–2D	3D–1D	3D
8	3D–1D	3D–1D	4D
9	3D–1D	3D	5D
A	3D	4D	6D

DMs for destination world:
If population 4–, –3.
If population 8+, +3.
If red zone, –12; no middle or low passengers.
If amber zone, –6.
TL: add (or subtract) difference between origin and destination.

STARSHIP DESIGN (Book 2)

Shipyards (1977): Any class A starport has a shipyard capable of starship construction located adjacent to it. Any class A or B starport has a shipyard capable of constructing non-starships. In most circumstances, shipyards are quite willing to construct and sell ships at standard prices. In some locations (throw 11+ to occur) a local government will prohibit the construction of military or armed vessels.

REQUIRED STARSHIP COMPONENTS (Book 2)

Engineering Section (1981): A starship must have a jump drive and a power plant; a maneuver drive may also be installed, but is not required. In all cases, the power plant letter must equal or exceed either the maneuver drive letter or the jump drive letter, whichever is higher.

Note that the 1977 rules did not include these two rules, which is the cause of most differences in the standard designs between the two editions.

OPTIONAL COMPONENTS (Book 2)

Computers (1977): Larger of smaller computer models may be installed or retrofitted to a starship, regardless of the model originally called for. In new construction, the different model is in lieu of the originally specified model; in retrofitting situations, the old model of computer can generally be traded in at 25% of original cost.

Turrets (1977): Turrets may be installed after construction at hardpoints specified on the ship's hull. Previously installed turrets may be removed and replaced by turrets of different sizes. Because they are options, they may be added to, or deleted from, the specifications of standard design ships. Used turrets removed in the case of renovation or retrofitting may be sold for 25% of their original cost. Turrets are considered to be streamlined.

Emergency Low Berths (1981): Emergency low berths cannot carry passengers, but can be used for survival. Each costs Cr100,000 and displaces one ton. Each holds four persons who share the same revival die roll. *While such berths are used in the 1977 lifeboat small craft design, no cost is given; the 1981 edition breaks them out as a usable component in designs.*

NON-STARSHIPS (Book 2)

Rules for non-starships or small craft changed between 1977 and 1981. Being aware of the 1977 rules will assist in understanding some published materials.

(1977) Non-starships may be constructed using the basic rules for starship construction, but omitting the jump drive. They may not later be converted to interstellar drive capability, but may be produced for 50% of the price of a comparable starship.

All non-starships consume fuel at the rate of 10 kilograms (1/100th of a ton) for each G of acceleration for ten minutes, regardless of mass or cargo carried.

A non-starship described above can support its passengers for up to 30 days in space. Beyond that time, air, food and water begin to run out. The passenger capacity cannot be increased, due primarily to design constraints, and potential overload of life support equipment. At the end of 30 days, throw 9+ each day to prevent the recycling machinery from breaking down. If it does fail, it must be repaired on the same day (throw 9+ to repair; DM: +1 per level of mechanical expertise, once per day) or the air is exhausted and the passengers will suffocate.

(1981) In order to build a starship, the hull tonnage must be at least 100 tons. In order to build a non-starship, the hull tonnage must be at least 100 tons and the

jump drive is omitted; pricing remains otherwise the same. This design and construction procedure does not apply to small craft, but the standard small craft shown may be customized to a great extent.

The fuel tankage listed for each craft is sufficient for four weeks of operations.

EXPENDABLES (1977 Book 2)

Certain materials for starship (and non-starship) operation are not considered to be routine operating expenses, but nevertheless involve occasional purchases on an irregular basis. These include ammunition and repair parts.

Missiles: Missiles for missile launch racks are expended when they are fired; replacements must be obtained for reloading purposes when the situation warrants. Basically, a missile is of the homing type, costing about CR 5000 each. Such missiles are committed to a specific target when fired, and after launch, home towards that target until either the missile or the target is destroyed. Other types of missiles are possible (for example, jump capable message torpedoes, or bombs for attacks against planetary surfaces), but such require either specific alterations to ordinary torpedoes, or location of an arms supplier who deals in such items. Specific attributes of such non-standard missiles are the realm of the referee.

Sand: The abrasive particles used in the sandcaster are of a special composition, combining prismatic crystals and ablative particles, which allows interference with laser beams and pulses, as well as inflicting minor damage on ships which it touches. Ordinary sand or particles are not considered to be an adequate substitute. Sand must be procured from arms merchants, generally pre-packed in a sandcaster canister, weighing about 50 kilograms. Base price for a canister of sand is set at CR 400.

The Repair Parts section of this rule was moved to the Space Combat chapter in the 1981 edition. The concept of jump-capable message torpedoes was deliberately removed from the 1981 edition, as the notion of jump drives on small craft was declared invalid.

DRIVE POTENTIAL (Book 2)

The 1977 and 1981 editions have significant differences in the Drive Potential tables. Also, note that the 1977 rules require a 36 month construction time for all custom hulls.

MAXIMUM DRIVE POTENTIAL (1977)

Jump Drive, Maneuver Drive, or Power Plant Type

HULL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	Build Time
100	2	4	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
200	1	2	3	4	5	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
400	—	1	1	2	2	3	3	4	4	5	5	6	6	—	—	—	—	—	—	—	—	—	—	—	16
600	—	—	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	—	—	—	—	24
800	—	—	—	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	28
1000	—	—	—	—	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	30
2000	—	—	—	—	—	—	—	—	—	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	32
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	1	1	1	1	1	34
4000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	35
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	36

DRIVE POTENTIAL (1981)

Jump Drive, Maneuver Drive, or Power Plant Type

Hull Tons	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	Build Time
100	2	4	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
200	1	2	3	4	5	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
400	—	1	1	2	2	3	3	4	4	5	5	6	6	—	—	—	—	—	—	—	—	—	—	—	16
600	—	—	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	—	—	—	—	24
800	—	—	—	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	28
1000	—	—	—	—	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	5	6	6	6	30
2000	—	—	—	—	—	—	—	—	—	1	1	1	1	1	1	1	1	1	1	2	2	3	4	6	32
3000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	1	1	2	3	4	34
4000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2	2	3	35
5000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	36

COMPUTER MODELS (Book 2)
The 1977 and 1981 editions have some differences in the Computer Models table

COMPUTERS (1977)

Model	MCr	Mass	CPU	Storage
1	2	1	2	4
1bis	5	1	4	—
2	9	2	3	6
2bis	12	2	6	—
3	18	3	5	9
4	30	4	8	15
5	45	5	12	25
6	55	5	15	35
7	60	5	20	50

COMPUTERS (1981)

Model	MCr	Tons	Capacity	TL
1	2	1	2/4	5
1bis	4	1	4/0	6
2	9	2	3/6	7
2bis	18	2	6/0	8
3	18	3	5/9	9
4	30	4	8/15	A
5	45	5	12/25	B
6	55	7	15/35	C
7	80	9	20/50	D

STARSHIP COMBAT (Book 2)
The differences caused by the change from Imperial measures (1977) to Metric (1981) are not detailed here.

Pulse Lasers (1977/Starter Traveller): Pulse lasers are less accurate but more powerful than beam lasers. A pulse laser fires with a DM of –1 to hit; however, if it hits the target suffers two damage rolls instead of one.
Hit Locations: These tables are different between the editions.

HIT LOCATIONS TABLE (1977)

Dice	Starship	Small Craft
2	Power plant	Drive
3	Maneuver	Drive
4	Jump	Drive
5	Computer	Drive
6	Hull	Drive
7	Hull	Cabin
8	Hold	Cabin
9	Fuel	Cabin
10	Turret	Weaponry
11	Turret	Weaponry
12	Turret	Weaponry

HIT LOCATIONS (1981)

2D	Starship	Non-Starship	Small Craft
2	Power plant	Power plant	Drive
3	Maneuver	Maneuver	Drive
4	Jump	Maneuver	Drive
5	Fuel	Fuel	Drive
6	Hull	Hull	Cabin
7	Hull	Hull	Computer
8	Hold	Hold	Cabin
9	Computer	Computer	Cabin
10	Turret	Turret	Weapons
11	Turret	Turret	Weapons
12	Critical	Critical	Critical

If no small craft computer, treat as Drive hit.

Missile Detonation (1977): When consulting the Hit Locations Table, apply a DM of –4.

Planetary Defensive Fires (1977): Many planets have extensive defenses based on laser weaponry, either in orbit or emplaced on the planetary surface. Such weaponry functions in the same manner as ship's guns, generally as beam lasers, and generally in triple turret mounts. Orbital emplacements are treated as starships; planetary surface emplacements must receive turret hits to affect them.

Ships can fire on such defenses from space. Persons located on the surface and in contact with a ship can serve as forward observers to assist in accurate fire.

MOVEMENT (Book 2)

Optional Acceleration Effects (1977): The vector movement system used in this game assumes, for simplicity, that all acceleration is instantaneous, and occurs at the beginning of the movement phase of the turn. For those who wish a greater degree of realism, note that, if acceleration occurs evenly during the movement phase, initial movement (i.e., during the turn acceleration is applied) will only be half that of the added vector ($D = \frac{1}{2}at$ for constant a). Full effect of the new vector will be felt only on succeeding turns. This also applies to the force of gravity.

RANGE BAND COMBAT (Starter Traveller)

To simplify the 1981 Space Combat rules, *Starter Traveller* dropped Classic **Traveller's** vector movement system in favor of a range band method (similar to the Personal Combat rules). This change influenced the Space Combat rules in *MegaTraveller* and *Marc Miller's Traveller* (T4) as well. The Gravity and Planetary Templates rules sections were dropped as unnecessary without the vector movement system. The following changes implement the Range Band system:

BASIC PARAMETERS

2. Space: In order to provide a simple display of ranges in an encounter, it is suggested that they be mapped out on a line grid. Ordinary lined paper serves this purpose quite well. Each band on the grid represents one range band; one range band equals 10,000 kilometers.

3. Thrust: Maneuver drive thrust is measured in Gs (gravities) expressed as a velocity, either forward or backward. Side-to-side movement is ignored, and forward or backward velocity is represented at the scale of 1 range band equals 1G (1,000 seconds acceleration at 1G will produce a velocity change of 10,000 km, or one range band in scale, per turn).

MOVEMENT

Ships move using their maneuver drives; use of the jump drive exits a ship into interstellar space, out of the area of play. In essence, ships depend on their maneuver drives and computer programs to allow them to catch ships they pursue or to escape ships pursuing them.

The referee determines in each space battle the location of the ships or craft involved. Typically, the referee specifies where a ship emerges from jump and how far it must travel before it can perform a jump safely. Further, the referee specifies when enemy ships appear and what their position is.

Ships move in range bands, each equal to 10,000 kilometers. They may move forward or back, but no side-to-side movement is allowed. Ranges are determined by counting the number of range bands between any two ships; for example, ships in adjacent range bands are at a distance of 1.

Every ship has a velocity, either forward or backward, which equals the number of range bands it moved in the previous turn. (Initial velocities are determined by the referee.) Each turn, a ship may change its velocity by up to its maneuver drive rating and then moves a number of range bands equal to its new velocity. For example, suppose a ship with maneuver drive-6 is moving forward with a velocity of 4 range bands per turn. During its movement phase, it could speed up to 10 range bands per turn forward, change to 2 range bands per turn backward, or anything in between.

Boarding: If a ship's maneuver drive has been disabled, it may be boarded from any other ship in the same range band with the same velocity.

LASER FIRE

In the tables for DMs, the following changes were implemented:

Attacker's DMs: Change "Obscuring Sand (per 25mm)" to "Obscuring Sand (per band)".

Defender's DMs: Change "Range greater than 2500mm" to "Range greater than 25 bands", "Range greater than 5000mm" to "Range greater than 50 bands", and "Obscuring Sand (per 25mm)" to "Obscuring Sand (per band)".

ORDNANCE LAUNCH

{added note} All ordnance which is launched has the launching ship's velocity, which must be taken into account. Sand will continue to move at the velocity possessed by the launching ship at the time of launch; missiles move as if they were ships with maneuver drive-6.

Missile Detonation: Ordnance which enters the same range band as a target in a movement phase, and which then survives anti-missile fire, detonates in the ordnance launch phase. This detonation will inflict 1 to 6 hits depending on the range at detonation. For each missile, throw one die. The result is the number of hits inflicted; determine each resulting hit location separately.

DETECTION

Ordinary or commercial starships can detect other ships out to a range of about one-half light second, or fifteen range bands. Military and scout starships have detection ranges out to two light seconds, or sixty range bands.

Tracking: Once a vessel has been detected, it can be tracked by anyone up to three light seconds (about ninety range bands).

SPECIAL SITUATIONS

Atmospheric Braking: removed.

Abandon Ship: A typical vacc suit is capable of one turn's acceleration at 1G before it runs out of fuel. A foamed atmospheric re-entry ablation shield (part of the vacc suit kit) can protect the individual while entering the atmosphere of a world, if his velocity is no more than one range band per turn.

COMPUTER PROGRAMMING (Book 2)

The 1977 edition had no rules on computer programming. Rules were published in JTAS #1 for use with the 1977 edition, and are somewhat different from the rules included in the 1981 edition.

The use of computer skill to write the extensive and complex computer programs intended for shipboard use is a long and difficult task. The skill required to write such programs is only one aspect of the problem; two other aspects are an actual understanding of the process being programmed, and the availability of time.

Computer Skill: Expertise in computer is essential to writing a program. First, it allows the individual to try. Second, higher skill levels tend to make the program smaller. Third, higher skill levels tend to allow faster completion of the program.

1. Trying: No one may attempt to write a computer program unless he has a skill level of at least 1 in computer (Individuals may always use computers for routine tasks, but that does not require programming). Exception: An individual with jack-of-all-trades may be assumed to have an equivalent level of computer skill in emergencies, but such programs as he writes will be temporary affairs, will not be retained for future use, and will not be saleable. In effect, jack-of-all-trades can be used to get out of a bad situation, but not for long-term goals.

2. Size: When a program is completed, throw one die and subtract the computer expertise being used (if the result is less than zero, make it zero). Add the result to the size for the program shown in the chart to find the size of the new program.

3. Completion: Examining the chart shows that the higher the computer skill being used, the greater the probability that a program will be completed sooner.

Understanding: Before a process can be programmed, it must be understood. The best programmer around cannot do a good program on gunnery if he does not understand gunnery. To promote understand, the programmer must have a certain level of skill in the process being programmed, or he must have, as a permanent assistant in the programming process, someone with the required skill (in such case, the programmer must have an intelligence of 7+ and the assistant must have an intelligence of 9+). If more than 1 skill is called for, two assistants may be provided. A program cannot provide a DM greater than the lowest skill level of the skilled individuals assisting.

Time: Conceptualizing a program is reasonably easy, but actually writing and debugging it can take a long time. The individuals concerned must plan on at least two months planning and preparation time. After that period, the weekly throw for program completion is made. Note that no progressive DM is allowed as time passes; there is the possibility that the program can never be written successfully by a specific level individual for a specific program.

Partnerships and Committees: Two individuals with computer skill may work together to write a program. The higher-level individual proceeds normally. The lower level individual may add 1 to his computer expertise (for this purpose, and rolls separately, thus taking into account the assistance the other gives during the process). More than two computer experts working together are a committee. They average their expertise and may make weekly rolls to the membership of the committee minus 2 (to cover overhead and administration). No members of the committee may not have computer expertise. Assistants providing outside skills are not considered part of the committee.

Synopsis: To write a specific program, its optimum size, computer skill level, required throw, and additional required skills must be determined, either from the chart or by the referee. At this point, the characters assign a programmer, and any assistants to the two month preparatory period (which need not be consecutive weeks). At the end of the period, the weekly throws for completion are begun. Upon achievement of the completion throw, the size throw is made to determine the final size of the program. If it will not fit into the available computer, continue weekly throws for completion. Always throw secretly at this point for a fatal flaw in the completed program (per *Traveller* Book 1, page 17).

COMPUTER PROGRAMMING CHART

Program Name	Size	Price	Knowledge Required to Write	Computer Skill	Throw
Predict-1	1	2.	Navigation-1 or Gunnery-1	1	10+
Predict-2	2	4.	Navigation-2 or Gunnery-2	1	10+
Predict-3	1	6	Navigation-3 or Gunnery-3	1	10+
Predict-4	3	8	Navigation-4 or Gunnery-4	1	11+
Predict-5	2	10	Navigation-5 ¤r Gunnery-5	2	12+
Gunner Interact	1	1	Maximum DM is Gunnery expertise used in writing the program.	2	11+
Target	1	1	Navigation-2 or Gunnery-2	2	10+
Selective-1	1	0.5	Gunnery-2	1	9+
Selective-2	2	0.8	Gunnery-3	2	9+
Multi-Target-2	1	1.	Gunnery-2	2	9+
Multi-Target-3	2	2.	Gunnery-3	2	10+

Multi-Target-4	4	3.	Gunnery-4	3	8+
Launch	1	2.	Gunnery-2	1	11+
Maneuver/Evade-1	1	1	Pilot-1 or Ship's Boat-2	1	10+
Maneuver/Evade-2	2	2	Pilot-2 or Ship's Boat-3	1	11+
Maneuver/Evade-3	3	3	Pilot-3 or Ship's Boat-4	2	10+
Maneuver/Evade-4	4	4	Pilot-4 or Ship's Boat-5	2	11+
Maneuver/Evade-5	2	5	Pilot-5 or Ship's Boat-6	3	10+
Maneuver/Evade-6	3	6	Pilot-6 or Ship's Boat-7	3	11+
Auto/Evade	1	0.5	Pilot-3 or Ship's Boat-4	2	11+
Return Fire	1	0.5	Gunnery-3	2	12+
Anti-Missile	2	1	Gunnery-3	3	10+
ECM	3	4	Electronic-3	4	9+
Maneuver	1	0.1	Pilot-1	1	9+
Jump-1	1	0.1	Pilot-1 and Navigation-1	1	10+
Jump-2	2	0.3	Pilot-2 and Navigation-2	2	11+
Jump-3	2	0.4	Pilot-2 and Navigation-2	2	12+
Jump-4	2	0.4	Pilot-2 and Navigation-2	3	11+
Jump-5	2	0.5	Pilot-2 and Navigation-3	3	12+
Jump-6	2	0.6	Pilot-2 and Navigation-4	4	11+
Library	1	0.3	not possible		
Generate	2	0.8	Pilot-2 and Navigation-4	4	12+
Anti-Hijack	1	0.1	Tactics-1 and Admin-1	1	9+

EXPERIENCE (Book 2)

Education (1977): A character may not work in this area unless his education characteristic is lower (at the start of the program) than his intelligence. *This restriction does not appear in the 1981 edition.*

WORLDS (Book 3)

Jump Routes (1977): The worlds of a subsector are connected by the charted space lanes, which mark the regular routes traveled by commercial starships. While it is possible for starships to travel without regard to the lanes charted, individuals who do not own or control starships are generally restricted to commercial travel on ships which ply to routes which are mapped.

For each world, note the starport type for it and for its neighbors. Consult the jump routes table, throwing one die. Four columns are provided, corresponding to jump distances one through four. Determine the distance between the two worlds, and the relationship between the starports. At the intersection of the distance column and the world pair row, a number is stated. If the one die throw is equal to or greater than the number, a space lane exists. Draw a line connecting the two worlds on the map. Each specific pair of worlds should be examined for jump routes only once.

This procedure is followed for most worlds within four hexes of each other; some worlds will obviously not have connecting space lanes, and others will obviously have many. The nature of interstellar jumps is such that a jump-2 may be made over two connecting jump-1 links; by remembering this facet of star travel, it is possible to ignore some potential connections because they are already present through the use of shorter connecting lanes. This may well help in the creation of legible subsector maps.

JUMP ROUTES

World Pair	Jump-1	Jump-2	Jump-3	Jump-4
A-A	1	2	4	5
A-B	1	3	4	5
A-C	1	4	6	—
A-D	1	5	—	—
A-E	2	—	—	—
B-B	1	3	4	6
B-C	2	4	6	—
B-D	3	6	—	—
B-E	4	—	—	—
C-C	3	6	—	—
C-D	4	—	—	—
C-E	4	—	—	—
D-D	4	—	—	—
D-E	5	—	—	—
E-E	6	—	—	—

The star map, once generated, shows the distribution of star systems in space, and shows their relationships to each other in relative distance and commercial space lane connections.

WORLD CREATION (Book 3)
Atmosphere Effects (*Alien Modules*): Certain atmospheres on worlds dictate the minimum tech levels as shown below. If a world has the indicated atmosphere and its tech level does not meet the minimum, change its population, government, law level and tech level to 000-0 instead.

Atmosphere	Min TL
2–	7
3	6
4, 7, 9	5
8, A	8
C	9

Hydrographic Percentage (1977): While later editions calculated Hydrographics as 2D–7 +atmosphere, the 1977 edition used 2D–7+size.

World Generation Checklist (1981): While the World Creation section shows the Hydrographics formula as 2D–7 +atmosphere, the checklist shows the Hydrographics formula as 2D–7+size (as in the 1977 edition); this error is repeated in *The Traveller Book* and *Starter Traveller*.

ENCOUNTERS (Book 3)
Legal Encounters (The Traveller Book): The once per day throw for legal encounters was printed as Law Level or more; *Starter Traveller* corrected this to Law Level or less.

ANIMAL ENCOUNTERS (Book 3)

TERRAIN DM CHART (1977): This chart was significantly changed in 1981 from the original 1977 edition:

TERRAIN DM CHART (1977)

Terrain Type	Type DM	Size DM
Clear, Road	+3	—
Plain, Prairie	+4	—
Hills, Foothills	—	—
Rough, Broken	–3	–3
Mountain	—	—
Forest	–4	–4
Woods	–2	–1
Jungle	–4	–3
Rainforest	–2	–2
Riverbank	+1	+1
Swamp, Marsh	–2	+4
Desert	+3	–3
Beach, Shore	+3	+2
Ruins	–2	—
Cave	—	–1

TERRAIN TYPES (1981)

Type	Equivalent	Type DM	Size DM
Clear	Road, Open	+3	—
Prairie	Plain, Steppe	+4	—
Rough	Hills, Foothills	—	—
Broken	Badlands	–3	–3
Mountain	Alpine	—	—
Forest	Woods	–4	–4
Jungle	Rainforest	–3	–2
River	Stream, Creek	+1	+1
Swamp	Bog	–2	+4
Marsh	Wetland	—	–1
Desert	Dunes	+3	–3
Beach	Shore, Sea Edge	+3	+2
Surface	Ocean, Sea	+2	+3
Shallows	Ocean, Sea	+2	+2
Depths	Ocean, Sea	+2	+4
Bottom	Ocean, Sea	–4	—
Sea Cave	Sea Cavern	–2	—
Sargasso	Seaweed	–4	–2
Ruins	Old City	–3	—
Cave	Cavern	–4	+1
Chasm	Crevass, Abyss	–1	–3
Crater	Hollow	—	–1

Animal Attributes (1977): The 1977 version of this table did not have a special Swamp column, but added a row for a die result of 13: Beach, T –6; Marsh, F –3; River, F –3; Sea, F –3; Other, F –3.

Animal Sizes and Weaponry (1977): The 1977 version of this chart produces some significant differences.

ANIMAL SIZES AND WEAPONRY

Die	Weight	Hits	Wounds	Weapons	Armor
1	1	1D/0	–2D	●	jack
2	3	1D/1D	–2D	teeth	—
3	6	1D/2D	–1D	horns	—
4	12	2D/2D	–1D	hooves	mesh
5	25	3D/2D	–1D	hooves+teeth	cloth
6	50	4D/2D	–1D	teeth	—
7	100	5D/2D	—	●	—
8	200	5D/3D	+1D	stinger	—
9	400	6D/3D	+2D	thrasher	—
10	800	7D/3D	+3D	claws+teeth	—
11	1600	8D/3D	+4D	claws	—
12	3200	8D/4D	+5D	teeth	—
13	●	●	●	●	—

● If this value is rolled, reroll one die and consult the appropriate column below:

1	6000	9D/4D	x2	as body pistol
2	12000	10D/5D	x2	as pike
3	18000	11D/6D	x3	as blade
4	24000	12D/6D	x3	as broadsword
5	30000	14D/7D	x4	stinger
6	36000	15D/7D	x4	as halberd

Animal Size DMs: In addition to those from the Terrain and Attributes tables, if planetary size is 4– or 8+, DM –1.

Animal Weapon and Armor DMs: If carnivore, +6. If herbivore, –6. Scavengers automatically have teeth in addition. Flyers automatically have no armor.

Animal Characteristics (1977): The Animal Characteristics table worked differently in the 1977 edition:

ANIMAL CHARACTERISTICS

Category/Type	To Attack	To Flee	Typical Speed
Herbivore			
Filter	If possible	8+	Ordinary/none
Intermittent	10+	9+	Double
Grazer	8+	5+	Double
Omnivore			
Gatherer	9+	8+	Ordinary
Hunter	If bigger, 6+	8+	Double
Eater	5+	10+	Ordinary/double

Carnivore			
Pouncer	If surprise	If surprised	Double
Chaser	If more	9+	Triple/double
Trapper	If surprise	9+	Ordinary/none
Siren	If surprise	10+	Ordinary/none
Killer	6+	11+	Double/ordinary
Scavenger			
Hijacker	7+	8+	Double
Intimidator	8+	7+	Double
Carrion-Eater	1+	8+	Ordinary
Reducer	10+	8+	Double

In order to determine the movement status of an animal in an encounter, throw for herbivore flight first, and if they do not flee, throw for attack. For all others, throw for attack first, and if they do not attack, throw for flight. If neither occurs, the animals stand. Throw for packs or groups of animals with one throw.

If animals are attacked, they will attack if their throw to attack is less than their to flee throw; otherwise they will flee. If no specific throw to attack is specified, the animal will attack if attacked (i.e., chasers).

Explanation of terms in the table:

If possible— Filters will attack if the range and situation allows.

If more— Chasers will attack on a throw of 6+ if there are more of them than in the encountered party.

If bigger— A hunter will attack if it is bigger than one member of the encountered party.

If surprise— Animals will attack if they have achieved surprise.

If surprised— Animals will flee if they are themselves surprised.

Speeds: Animals will move at ordinary speed (one column per round) or at double or triple speed. Some animals may not move (speed = none). When two speeds are specified, the first applies on a throw of 7+, otherwise the second applies.

Traveller

*This special supplement examines and interpolates various Lost Rules tucked away and forgotten in various **Traveller**® sources, and was produced to complement the Classic Traveller Reprints from Far Future Enterprises.*

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