

Book 1—Characters and Combat

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TRAVELLERTM
Science-Fiction Adventure
in the Far Future

Game Designers' Workshop

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TRAVELLER

Science-Fiction AdventureTM
in the Far Future

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TRAVELLER, Book 1, Characters and Combat
Second Edition

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Although this game (as presented in Books 1, 2, and 3) envisions
a referee or umpire to supervise play and to resolve questions,
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Introduction

To Mary Beth

Traveller deals with a common theme of science-fiction: the concept that an expanding technology will enable us to reach the stars and to populate the worlds which orbit them. The major problem, however, will be that communication, be it political, diplomatic, commercial, or private, will be reduced to the level of the 18th century, reduced to the speed of transportation. The result is a large (bordering on the infinite) universe ripe for the adventurer's bold travels. Using this set of three books, players can play single scenarios or entire adventuring campaigns set in any science-fiction situation. These game rules are as complete as they could be and provide for solitaire and unsupervised play. But the main thrust of the game is the refereed or umpired situation. An independent referee allows a large degree of flexibility and continuity often not possible when players themselves control the game. A referee inserts some measure of uncertainty in the minds of the players as they travel through the universe. Finally, the referee deals with new situations that these rules may not cover; after all, no set of rules can totally define the universe and how it works.

Traveller is basically a conversation game. It requires pencil and paper for notes, lists, and computations. Beyond that, it calls for a handful of six-sided dice for the generation of random numbers useful in combat and commerce. Everything else is optional, and depends on who is playing and what they want to play.

REQUIRED MATERIALS

Necessary:

Traveller, Books 1, 2, and 3.

Dice. Six-sided dice are used. Each player should have two; the referee should have more. Different colors are useful.

Paper. Scratch, lined, and graph.

Writing Instruments. Pencils, pens, erasers, and colored markers.

Optional:

Other **Traveller** Books, Adventures, and Supplements.

Miniature Figures. Metal, plastic, or paper representations of persons, aliens, beasts, vehicles, and starships.

Calculators.

Traveller is designed for mature people who have imagination and an interest in the worlds of science-fiction. Traditionally, a more experienced person serves as the game referee and controls the action of the scenario. Since the referee usually needs to make some preparations before the current game begins, he or she is responsible for being ready and knowing the rules that will apply.

Any number of people can play **Traveller** as player-characters. Typically, a group will consist of two or more players and a referee. The group can easily be as many as eight players, and some referees feel at ease with even more. Optimum group size is based on what the referee can handle, and is probably between three and ten players.

PLAYING THE GAME

There are three basic ways to play **Traveller**: solitaire, scenario, and campaign.

Any of these three may be unsupervised (that is, without a referee; the players themselves administer the rules and manipulate the situation). Recommended instead is the refereed game, where a separate player runs the situation and administers the rules.

The Solitaire Game: One player undertakes some journey or adventure alone. He or she handles the effects of the rules as the situation progresses. Solitaire is ideal for players who are isolated by situation or geography.

In addition, there are many aspects ideally suited to solitaire consideration. A single player can spend the time generating characters, designing starships, generating worlds and subsectors, planning situations, and mapping out ideas to use in later group adventures.

The Scenario: Several players embark on a journey or adventure together. The scenario resembles a science-fiction novel, in that some basic goal or purpose is stated, and the adventure occurs as the group strives to achieve the goal. Usually, the scenario is a one-time affair and ends when the evening is over or the goal is reached.

An example of a simple scenario might proceed like this: players generate characters (Book 1) and then look for a patron (Book 3). When they find one, he suggests an expedition to a world orbiting Sirius, a world reputed to be the source of "diamonds as big as your fist."

In most cases, the scenario is intended to be a one-time affair, with the characters and situation to be discarded at the adventure's end. Strangely enough, players generally become attached to their characters and usually want to continue their lives in further adventures. To this purpose, the campaign is designed.

The Campaign: Several players manipulate their characters in a series of continuing, linked adventures in a consistent universe. The referee is responsible for generating the basic facts of the universe before play begins. As the campaign unfolds, the players may range far and wide through the universe, perhaps beyond the referee's original boundaries. In such cases, the campaign may be temporarily halted as the referee expands the available data (or the referee may be forced to work through the night getting ready for the next day's adventures). Where the scenario is like a science-fiction novel, the campaign is like a continuing series.

DIE ROLL CONVENTIONS

Routinely in the course of **Traveller**, dice must be thrown to determine an effectively random or unpredictable course of action. These dice throws may be made by players for their characters, or by the referee for the effects of nature, non-players, or unseen forces. Rolls by the referee may be kept secret, or partially concealed depending on their effects. In situations where the players would not actually know the results of the roll, or would not know the exact roll made, the referee would make the roll in secret.

Generally, a dice throw involves two dice; exceptions requiring one die or three or more dice are clearly stated. The following terms and conventions for dice throws apply to the game.

Saving Throw (also called Throw): That dice roll required to achieve a stated effect. If only a number is stated, it must be rolled exactly. A number followed by a plus (such as 8+) indicates that the number or greater must be rolled. Similarly, a number followed by a minus (such as 6-) indicates that that number or less must

be rolled. Throws can be identified because the sign *follows* the number.

Die Modifier (abbreviated DM): A number to be applied to a die roll before it is used. Die modifiers are preceded by a sign which indicates whether the number is to be added to or subtracted from the die roll. Thus +4 would be added to the die roll while -2 would be subtracted.

THE REFEREE

Crucial to the continuing campaign is the referee; he or she actually creates a universe and then catalogs the creatures and societies which populate it. In order to begin, the referee creates a star map of a subsector and generates the specific details of the worlds within it. Initially, however, only clues (sometimes false or misleading) as to the nature of the universe are available to the players.

The referee may also indicate possible quests for characters through the use of rumors, barroom conversations, and so-called general knowledge. For example, a rumor may indicate the source of potential wealth or power; not-so-subtle clues may exist which could lead to devices or techniques to save the world from cataclysm. The possibilities are endless.

In any case, the referee can make or break a campaign, as it is his imagination that the other players use as a springboard to adventure.

The referee is responsible for maintaining the master maps and charts of the universe, and for determining the various effects of natural forces, chance, and non-player characters on the adventurers. The referee must settle disputes about the rules (and may use his own imagination while doing so, rather than strictly adhering to the letter of the rules).

GETTING STARTED

This book (Book 1) contains rules for generating individual characters, as well as the overall personal combat rules and weapons types. It is the best place for players to begin; all should generate a few characters to familiarize themselves with the system, and then proceed to generate their player characters.

Book 2 contains details on starships. Players can travel on them using the basic transportation rules, and may find it interesting to engage in trade and commerce in order to make some money. Later, they will become involved in ship design and construction.

Book 3 concerns the alien worlds and star systems that can be encountered in the far reaches of the universe. The referee is concerned with that part as he or she generates those worlds before the travellers arrive. Later, the players are concerned with the same data as they explore and investigate the world they have travelled to.

Characters

Characters are the central focus of **Traveller**; they are the alter-egos of the players, and all activity is centered on them. Each character has abilities and characteristics which define his or her actions and reactions. The *character* is the **Traveller** personality; the *player* is the person engaged in playing the game. Once a character is generated, he or she continues to live and adventure until killed in action, or until too old and decrepit to keep up.

All characters begin the game the same way: untrained, inexperienced, and about 18 years of age.

INITIAL CHARACTER GENERATION

Characters are generated through a series of six two-dice rolls which determine

CHARACTERISTICS

Strength is both a general evaluation of the character's physical ability, and a specific measure of force which may be applied.

Dexterity measures physical coordination.

Endurance measures physical determination and stamina.

Intelligence corresponds to IQ.

Education indicates the highest level of schooling attained.

Social Standing notes the social class and level of society from which the character (and his or her family) come.

created. The experience procedures and acquired skills table offer a genuine opportunity to enhance values, given only time and luck. Should a player truly consider the character so poor as to be beyond help, the low survival rate of the Scout Service may make it the best career choice.

The Universal Personality Profile: Characters in **Traveller** are precisely defined using the *universal personality profile* (the UPP), which expresses the basic characteristics in a specific sequence using hexadecimal (base 16) numbers. In hexadecimal notation, the digits 0 through 9 are represented by the common arabic numbers: the digits 10 through 15 are represented by the letters A through F. The highest single digit in base 16 notation is 15 (F). Characteristics are listed as a string of six digits, in the order originally rolled: strength, dexterity, endurance, intelligence, education, and social standing.

For example, a character who is totally average in all respects would have a UPP of 777777. If, instead, the individual were highly intelligent, his UPP would be

the basic characteristics affecting abilities and reactions. Roll two dice for each of the characteristics given on the characteristics table. Record the results.

Values for the generated characteristics may range initially from 2 to 12 (with 7 the average value). As a result of various modifications, characteristic values may ultimately range from 1 to 15. For player-characters (those manipulated by players) the values of characteristics may not exceed 15; they do not go below 1 except for the results of calamitous injury or aging.

Obviously, it is possible for a player to generate a character with seemingly unsatisfactory values; nevertheless, each player should use the character as it is

777B77 (the B in the fourth position indicates an intelligence of 11).

While the use of the UPP is optional, it allows the referee (and the players) to tell at a glance the characteristics of persons they encounter and deal with.

NOBLE TITLES

Naming: Once generated, the character should be named. There are several schools of thought on the nature of names. One school holds that the character should carry the name of the player; the referee can then refer to Frank or Cindy, and everyone knows exactly who's who. This usage is convenient, but tends to lose some of the flavor of the campaign.

Another school calls for the use of pseudonyms or fanciful names (for example: Alexander Lascelles Jamison, or Timothy Fairweather; more extremely, Seeker or Starkiller). As with everything in the game, the actual choice depends only on imagination.

Titles: Any character with a social standing of B (11) or greater may assume his or her family's hereditary title. Noble titles are commonly used, even if the individual is not engaged in local government. At the discretion of the referee, a noble may have some ancestral lands or fiefs, and may actually have some ruling power.

A knight (social standing B) is entitled to the use of Sir (or Dame) before his (or her) name. Social standing C entitles the individual to the title Baron or Baroness. In lieu of this title, the individual may instead use the prefix von or haut or hault (denoting baronial nobility) with his or her name.

Rank: Characters receiving commissions or promotions (as explained below) may use their rank as part of their names, even after leaving the service or retiring.

ACQUIRING SKILLS AND EXPERTISE

A newly generated character is singularly unequipped to deal with the adventuring universe, having neither the expertise nor the experience necessary for the active life. In order to acquire some experience, it is possible to enlist in a service.

Enlistment: A character may choose one of the six services (Navy, Marines, Army, Scouts, Merchants, and Other), and attempt to enlist. The prior service table gives the service enlistment throw required to enlist. Successfully throwing the number or higher on two dice allows enlistment. Most services allow die modifications if the character has one or two stated characteristics of a certain level or higher. If both stated characteristics are present in the required level, the die modification is cumulative.

For example, the enlistment throw for the Navy is 8+; DM of +1 is allowed for intelligence of 8 or greater, and DM of +2 is allowed for education of 9 or greater. Assuming a character with intelligence of 6 and education of 10 attempted to enlist in the Navy, he would be allowed a DM of +2 (for his education). He rolls a 3 on two dice, adds his DM of +2 to get a 5, which is insufficient to allow enlistment in the Navy. He has been rejected.

Only one enlistment attempt is permitted per character. If rejected for enlistment, he must submit to the draft. Enlistment or draft is not allowed after age 18.

The Draft: Should an attempt at enlistment fail, the character must submit to the draft. Each of the six services has a draft number; the draftee rolls one die, and

enters the service with that draft number. Note that it is possible for a character to be drafted into the very service which had just previously rejected an enlistment.

Draftees are not eligible for commissions during their first term of service; they do become eligible during the second and subsequent terms of service if they reenlist.

Terms of Service: Upon enlistment (or upon being drafted), a character embarks on a term of service lasting four years. This adds four years to the character's age. Each time a character reenlists, it is for an additional four year term of service.

Survival: Each term of service involves some danger; during the term, a character must successfully throw his service's survival number to avoid death in the line of duty. Each service also has DMs which may apply. Failure to successfully achieve the survival throw results in death; a new character must be generated.

—Optional Rule: 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.

Commissions and Promotions: Each service has a commission number; in order to be commissioned as an officer, the character must throw the stated number. DMs may apply to the throw. If the commission is achieved, the character receives rank level 1 in his or her service. A character may attempt to acquire a commission once per term of service until successful, with the exception that a draftee may not attempt to acquire a commission in the first term of service.

In the same term of service that a commission is received and in each subsequent term of service, a character may attempt to be promoted. Each service has a promotion number and DMs affecting that promotion throw. If a promotion is achieved, the character advances to the next higher rank in the service. A character is eligible for one promotion per term of service.

Commissions and promotions are not available in the Scout Service or in the Other Service.

Skills and Training: During each term of service, a character has the opportunity to acquire personal skills and expertise.

Allowances are made for the acquisition of new skills based on service, duty, commission, and promotion.

Skills are acquired by rolling on the acquired skills table once for each skill allowed, using one die. There are four

tables, each containing different general types of skills. One of the tables is chosen before the die is rolled, and the single die roll indicates the specific skill the character acquires.

Of the four acquired skill tables, the first three may always be used by a character. The fourth is available only through advanced education, and may be used only by characters with an education characteristic of 8 or greater.

During the character's first term of service, he or she becomes eligible for two skills; during each additional term of service, the character becomes eligible for one skill. Upon receiving a commission, he or she becomes eligible for one skill. Upon being promoted, the character becomes eligible for one skill. Thus, a character who joins the Navy, receives a commission, and then receives a promotion during the

initial term of service becomes eligible for four skills. The same character, in the next term, is eligible for one skill if he or she does not receive another promotion.

Some skills automatically accrue to a character (without using eligibility) by virtue of rank or service. These automatic skills are listed below the skills table.

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.

Reenlistment: Generally, a character is free to leave the service or to remain for another term, depending on the individual's goals and desires. As always, the possibilities of war, peace, and other considerations loom ever-present over the character's career, and may force others to decide the course of the career. Each service has a reenlistment number; in order to undertake a subsequent term of service, a character must throw that number or greater (no DMs are allowed). If the throw is not successful, reenlistment has been denied, and the person must leave the service. If the throw is 12 (exactly), the needs of the service require that the character serve another term, regardless of his or her personal desires. The reenlistment throw is required during each term of service.

Retirement: A character may serve up to seven terms of service voluntarily, and may leave after any term (provided mandatory reenlistment — a reenlistment throw of 12 exactly — does not occur). A person may retire any time after the end of the fifth term. Retirement grants the individual an annual retirement pay (in addition to any mustering out benefits); rates of retirement pay are shown in the retirement pay table.

Service beyond the seventh term is normally impossible, and retirement is mandatory for an individual who has completed a seventh term of service. However, persons who throw mandatory reenlistment must instead serve that additional term of service. It is theoretically possible for an individual to be required to serve ninth and even tenth terms under mandatory reenlistment.

MUSTERING OUT

When a character leaves the service (for any reason), he or she is eligible for mustering out benefits. The two mustering out tables indicate the nature of these

MUSTERING OUT BENEFITS

Per term of service	1
If rank 1 or 2	1
If rank 3 or 4	2
If rank 5 or 6	3

benefits: one provides travel, education, and material benefits, while the other provides cash severance pay. Each table is matrixed by service and a single die roll.

Allowed Die Modifications

If rank 5 or 6: DM +1 on skills table
Gambling: DM + level on cash table

When mustering out of the service, a character is allowed to consult these tables based on total terms of service and on final rank.

One benefit roll is allowed for each term served. Additionally, a character who has received rank 1 or 2 receives one extra roll. A character who has received rank 3 or 4 receives two extra rolls. A character who has received rank 5 or 6 receives three extra rolls, and in addition may apply a DM of +1 to die rolls on the skills and benefits table. Any character who has acquired gambling skill at level-1 or higher may add +1 to the die roll

on the cash table.

A character is free to choose between the skills and benefits table and the cash table, but no one may consult the cash table more than three times during the mustering out process.

For example, an uncommissioned character who has served four terms of service is eligible for four mustering out benefits. She may roll a total of four times, distributing the rolls as she desires between the two tables, provided only that she may roll no more than three times on the cash table. The player must designate the table being used before rolling the die.

AGING

Because each term of service is four years in length, a character can potentially age twenty years or more before venturing into the adventure portion of the game. This aging may even have a detrimental effect on a character's strength, dexterity, endurance, and even intelligence.

When a character reaches 34 years of age (the end of the fourth term of service) aging begins to take its toll. The aging table must be consulted then, and thereafter at four year intervals. This table shows each of the characteristics affected, and the throws necessary to avoid the effects of aging. If a specific throw is failed, then the reduction indicated is applied to the characteristic.

In some situations, the use of drugs (to speed up or slow down body chemistry) or low passage (suspended animation for low cost travel) will make the character age faster or slower than a strict game calendar would indicate. It is therefore quite important that each player maintain careful records on his or her character's physical age.

Aging Crisis: If, as a result of aging, a characteristic is reduced to zero, the character is considered to have had an aging crisis and become quite ill. A basic saving throw of 8+ applies to avoid death (subject to a DM for the expertise of any attending medical skill). If the character survives, recovery is made immediately (under slow drug, which speeds up the body chemistry). The character ages (one die equals the number of months in added age under slow drug) immediately, but also returns to play without delay. The characteristic which was reduced to zero automatically becomes 1. This process occurs each time (and for each characteristic) a characteristic is reduced to zero. In the event that slow drug is not available, the individual is incapacitated for the number of months indicated if the basic throw of 8+ is successful.

AGING TABLE

Term of Service	4	5	6	7	8	9	10	11	12	13	14+
Age	34	38	42	46	50	54	58	62	66	70	74+
Strength	-1 (8+)....				-1 (9+)....				-2 (9+)....		
Dexterity	-1 (7+)....				-1 (8+)....				-2 (9+)....		
Endurance	-1 (8+)....				-1 (9+)....				-2 (9+)....		
Intelligence	 no effect before age 66								-1 (9+)....		
Education	 unaffected by aging										
Social Standing	 unaffected by aging										

The negative number is the potential reduction in characteristic if the saving throw (on two dice; throw shown in parentheses) is not made. Term of service refers to the end of that numbered term; age refers to the first day of the personal (physical, not chronological) year.

NON-PLAYER CHARACTERS

Sometimes (often) player-characters will encounter people not actually manipulated by a player. They may be thugs or assailants; they may be potential hirelings or patrons. In any case, their skills and abilities should be determined by the referee using the character generation procedure.

For example, a starship captain may be looking for a crew for his ship. The referee would generate characters until one occurs with the required skill (navigation, medical, etc). Generally, the first appropriate character to be generated would present himself or herself for employment, and if not accepted (or considered to be unsuitable) a suitable delay would occur before another becomes available. As an alternative, the referee may simply generate a character and assign the required skill plus a few others for variety. Similarly, the characteristics of thugs and brigands who are menacing player-characters, or of people presenting themselves for hire, may be determined and recorded for use when necessary.

Loyalty and Dedication: In most cases, non-player characters will be dependable and loyal (assuming the absence of bad treatment by their employers); the possibility exists, however, that a seemingly loyal non-player character has foul play at heart. The referee should utilize the character reaction table (in Book 3) to determine such potential, and note such possibilities as they exist. Continued loyalty of non-player characters is ultimately dependent on the quality of treatment and level of skill of their employing player-characters.

Character Generation: Most players new to *Traveller* spend some time in the generation of various character types. It is recommended that the referee save these characters for future use as non-player characters, hirelings, and other types.

CAREER TYPES

The six career types generated here are general careers assumed to exist in the human societies within the galaxy. They can roughly be described as follows:

Navy: Members of the interstellar space navy which patrols space between the stars. The navy has responsibility for the protection of society from lawless elements in the interstellar trade channels, and from foreign powers.

Marines: Members of the armed fighting forces carried aboard starships. Marines deal with piracy and boarding actions in space, defend the starports and bases belonging to the navy, and supplement other ground forces such as the army.

Army: Members of the planetary armed fighting forces. Soldiers deal with planetary surface actions, battles, and campaigns. Such individuals may also be mercenaries for hire.

Scouts: Members of the exploratory service. Scouts explore new areas, map and survey known or newly discovered areas, and maintain the communications ships which carry information and messages between the worlds of the galaxy.

Merchants: Merchants of the commercial enterprises. Merchants may crew the ships of the large trading corporations, or they may work for the independent free traders which carry chance cargos and passengers between worlds.

Other: Characters who do not serve in one of the above areas instead follow unproductive careers with a variety of experiences. The Other service covers some trades, ne'er-do-wells, and the shady realm of the underworld. The exact nature of the career of any specific character in the Other field must be deduced from the skills and benefits received during character generation.

PRIOR SERVICE TABLE

	<i>Navy</i>	<i>Marines</i>	<i>Army</i>	<i>Scouts</i>	<i>Merchants</i>	<i>Other</i>
Enlistment	8+	9+	5+	7+	7+	3+
DM of +1 if	Intel 8+	Intel 8+	Dext 6+	Intel 6+	Stren 7+	—
DM of +2 if	Educ 9+	Stren 8+	Endur 5+	Stren 8+	Intel 6+	—
Draft	1	2	3	4	5	6
Survival	5+	6+	5+	7+	5+	5+
DM of +2 if	Intel 7+	Endur 8+	Educ 6+	Endur 9+	Intel 7+	Intel 9+
Commission	10+	9+	5+	—	4+	—
DM of +1 if	Social 9+	Educ 7+	Endur 7+	—	Intel 6+	—
Promotion	8+	9+	6+	—	10+	—
DM of +1 if	Educ 8+	Social 8+	Educ 7+	—	Intel 9+	—
Reenlist	6+	6+	7+	3+	4+	5+

Characters cycle through this table during each term of service. Note that the reenlistment die throw is required even if the character does not intend to reenlist.

DMs are cumulative in the case of enlistment if the characters have the necessary prerequisites. All rolls except draft are two-dice throws.

The table of ranks below indicates the initial commissioned rank, if a commission is received, and indicates the ranks to which characters are promoted. Ranks, commissions, and promotions are non-existent in the scout and the other services.

TABLE OF RANKS

	<i>Navy</i>	<i>Marines</i>	<i>Army</i>	<i>Scouts</i>	<i>Merchants</i>	<i>Other</i>
Rank 1	Ensign	Lieutenant	Lieutenant	—	4th Officer	—
Rank 2	Lieutenant	Captain	Captain	—	3rd Officer	—
Rank 3	Lt Cmdr	Force Cmdr	Major	—	2nd Officer	—
Rank 4	Commander	Lt Colonel	Lt Colonel	—	1st Officer	—
Rank 5	Captain	Colonel	Colonel	—	Captain	—
Rank 6	Admiral	Brigadier	General	—	—	—

MUSTERING OUT TABLES

Benefits	1	Low Psg	Low Psg	Low Psg	Low Psg	Low Psg
Table	2	+1 Intel	+2 Intel	+1 Intel	+2 Intel	+1 Intel
	3	+2 Educ	+1 Educ	+2 Educ	+2 Educ	+1 Educ
	4	Blade	Blade	Gun	Blade	Gun
	5	Travellers	Travellers	High Psg	Gun	Blade
	6	High Psg	High Psg	Mid Psg	Scout Ship	Low Psg
	7	+2 Social	+2 Social	+1 Social	—	Free Trader

Characters with rank 5 or 6 may add +1 to their rolls on this table. Gun and blade benefits must be declared by type immediately; additional benefits of that type may be declared as skill.

Cash	1	1000	2000	2000	20000	1000	1000
Table	2	5000	5000	5000	20000	5000	5000
	3	5000	5000	10000	30000	10000	10000
	4	10000	10000	10000	30000	20000	10000
	5	20000	20000	10000	50000	20000	10000
	6	50000	30000	20000	50000	40000	50000
	7	50000	40000	30000	50000	40000	100000

A maximum of three rolls are allowed on the cash table; all remaining rolls must be on the benefits table. Individuals with gambling expertise are allowed a DM of +1 on the cash table.

ACQUIRED SKILLS TABLES

Personal Development Table

	<i>Navy</i>	<i>Marines</i>	<i>Army</i>	<i>Scouts</i>	<i>Merchant</i>	<i>Other</i>
1	+1 Stren	+1 Stren	+1 Stren	+1 Stren	+1 Stren	+1 Stren
2	+1 Dext	+1 Dext	+1 Dext	+1 Dext	+1 Dext	+1 Dext
3	+1 Endur	+1 Endur	+1 Endur	+1 Endur	+1 Endur	+1 Endur
4	+1 Intel	Gambling	Gambling	+1 Intel	+1 Stren	Blade Cbt
5	+1 Educ	Brawling	+1 Educ	+1 Educ	Blade Cbt	Brawling
6	+1 Social	Blade Cbt	Brawling	Gun Cbt	Bribery	-1 Social

Service Skills Table

	<i>Navy</i>	<i>Marines</i>	<i>Army</i>	<i>Scouts</i>	<i>Merchant</i>	<i>Other</i>
1	Ship's Boat	Vehicle	Vehicle	Vehicle	Vehicle	Vehicle
2	Vacc Suit	Vacc Suit	Air/Raft	Vacc Suit	Vacc Suit	Gambling
3	Fwd Obsvr	Blade Cbt	Gun Cbt	Mechanical	Jack-o-T	Brawling
4	Gunnery	Gun Cbt	Fwd Obsvr	Navigation	Steward	Bribery
5	Blade Cbt	Blade Cbt	Blade Cbt	Electronics	Electronics	Blade Cbt
6	Gun Cbt	Gun Cbt	Gun Cbt	Jack-o-T	Gun Cbt	Gun Cbt

Advanced Education Table

	<i>Navy</i>	<i>Marines</i>	<i>Army</i>	<i>Scouts</i>	<i>Merchant</i>	<i>Other</i>
1	Vacc Suit	Vehicle	Vehicle	Vehicle	Streetwise	Streetwise
2	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
3	Electronic	Electronic	Electronic	Electronic	Electronic	Electronic
4	Engineering	Tactics	Tactics	Jack-o-T	Navigation	Gambling
5	Gunnery	Blade Cbt	Blade Cbt	Gunnery	Gunnery	Brawling
6	Jack-o-T	Gun Cbt	Gun Cbt	Medical	Medical	Forgery

Advanced Education Table (allowed only for characters with education 8+)

	<i>Navy</i>	<i>Marines</i>	<i>Army</i>	<i>Scouts</i>	<i>Merchant</i>	<i>Other</i>
1	Medical	Medical	Medical	Medical	Medical	Medical
2	Navigation	Tactics	Tactics	Navigation	Navigation	Forgery
3	Engineering	Tactics	Tactics	Engineering	Engineering	Electronics
4	Computer	Computer	Computer	Computer	Computer	Computer
5	Pilot	Leader	Leader	Pilot	Pilot	Streetwise
6	Admin	Admin	Admin	Jack-o-T	Admin	Jack-o-T

Some skills accrue to a character automatically (without the necessity of throwing for them, and without using up eligibility). This table shows the specific rank and service required for each automatic skill; this table should be consulted at the end of each term of service. Each automatic skill may be received only once.

RANK AND SERVICE SKILLS

Navy Captain		+1 Social
Navy Admiral		+1 Social
Marine		Cutlass-1
Marine Lieutenant		Revolver-1
Army		Rifle-1
Army Lieutenant		SMG-1
Merchant First Officer		Pilot-1
Scout		Pilot-1

SKILLS AND BENEFITS

The skills and benefits which can be acquired during a term of service are of greatly diverse types and values. They form an integral part of the player's character, assisting the referee (and the player) in calculating both general ability and the specific probability of performing certain tasks.

There are a finite number of skills listed, and it is possible that one specific skill may be acquired more than once; in such cases, the second acquisition increases the character's expertise in that skill. Upon the first acquisition of a skill, the player writes the skill name, followed by a dash and the number 1 (thus: navigation-1). The second time the skill is acquired, the number is increased to show greater expertise (thus: navigation-2). Additional acquisitions of the same skill will increase this skill level to 3, 4, or higher.

Benefits are of three basic types: characteristic alterations (such as +1 strength), weapons expertise (such as blade combat), and basic skills (such as navigation).

Characteristic Alterations: Expressed as an addition (or subtraction) to a character's ability. In this category, alterations tend to affect strength, dexterity, or endurance (although some services can affect other abilities as well). Characteristic alterations are applied immediately, and require no further attention. An example of a characteristic alteration is +1 dexterity.

Weapon Expertise: Expressed as a general trait, such as brawling, blade combat, or gunnery. When acquired, the character notes the area of expertise, and immediately selects the specific type of skill received. Thus, if the weapon skill received is gun combat, the character must select which type of gun the expertise is in. Gunnery and brawling do not require any selection because they have no subdivisions.

All player-characters have an innate weapon expertise, in all weapons, of zero. Acquisition of a weapon skill boosts this to level-1. Additional acquisitions of expertise in the same weapon increase the present level by one.

Brawling: Brawling is a general skill for hand-to-hand combat. It includes the use of hands, clubs, and bottles as weapons.

Blade Combat: Blade combat is a specific skill in the use of blades and polearms. The character may select one blade or polearm each time blade combat is received. The blades and polearms table indicates the weapons available under this skill. Selection of a specific blade or polearm should be a discriminating decision; the table is intended to assist in that decision even for players still unfamiliar with the Traveller combat system. Following each listed weapon are three columns. The +DM column indicates the minimum required strength for the character if he or she is to receive strength bonuses for using the weapon in combat. It is advantageous for a character to have skill in a weapon which provides such bonuses. The -DM column shows the level of strength (or less) which calls for mandatory strength penalties for using the weapon in combat; such penalties are to be avoided. Finally, the wounds column indicates the degree of wounding ability which the weapon has; it indicates relative power of the weapons.

A character may select one weapon each time that blade combat skill is received. In the event that a character receives blade combat three times, he might choose, for example, cutlass-2 (taking cutlass twice) and dagger-1, or decide to concentrate on one weapon, perhaps taking foil-3.

Note that one of the possible weapons is named blade. Players must be careful

to designate the weapon or weapons they have selected; otherwise, skill defaults to the edged weapon named blade.

Blade combat is explained in the personal combat section later in Book 1.

BLADES AND POLEARMS

Weapon	+DM	-DM	Wounds
Dagger	8+	3 -	2D
Blade	9+	4 -	2D
Foil	10+	4 -	1D
Sword	10+	5 -	2D
Cutlass	11+	7 -	3D
Broadsword	12+	7 -	4D
Bayonet	9+	4 -	3D
Spear	9+	4 -	2D
Halberd	10+	5 -	3D
Pike	10+	6 -	3D
Cudgel	8+	4 -	2D

GUNS

Weapon	+DM	-DM	Wounds
Body Pistol	11+	7 -	2D
Auto Pistol	10+	6 -	3D
Revolver	9+	6 -	3D
Carbine	9+	4 -	3D
Rifle	8+	5 -	3D
Auto Rifle	10+	6 -	3D
Shotgun	9+	3 -	4D
SMG	9+	6 -	3D
Laser Carbine	10+	5 -	4D
Laser Rifle	11+	6 -	5D

Gun Combat: Gun combat is a specific skill in the use of firearms. The character must immediately choose one firearm from the guns table; a different gun may be selected each time that the skill is received. The table contains columns indicating positive or negative DMs, but these are based on dexterity (not on strength).

Gun combat is explained in the personal combat section later in Book 1.

Gunnery: Gunnery is a skill in the use of weapons mounted on board spacecraft (beam and pulse lasers, sandcasters, and missile launchers). This skill entitles the individual to the job title of gunner. Space combat is covered in Book 2.

Basic Skills: Expressed as a general ability, such as navigation or engineering. Each skill is further defined below.

Administration: The individual has had experience with bureaucratic agencies, and understands the requirements of dealing with them and managing them.

When contact with officials is required, understanding their needs and motives will assist in dealing with them. A basic throw of 7+ will successfully resolve normal interaction without further problems (such as

avoidance of police harassment, insuring prompt issuance of licenses, approval of applications, avoidance of close inspection of papers, etc). DMs to be applied: no expertise, -3; per level of admin expertise, +2.

When serving in a bureaucratic organization, admin expertise allows competency in the eyes of superiors. DMs to be applied: +1 per level of expertise. The exact throw to be determined by the referee under the circumstances.

Referee: Admin expertise should also affect the quality of work and potential of success for an organization which the character is controlling or managing.

Air/Raft: The individual has training and experience in the use and operation of the air/raft, floater, flier, and all types of grav vehicles.

The air/raft is the major transportation vehicle on most worlds with high enough tech levels. Most people are aware of the basics of operation for such vehicles. The air/raft can be dangerous to operate in high speed situa-

tions or in bad weather. A basic throw of 5+ to avoid an accident or mishap in bad weather, chases, or high speed maneuvers should be used. DMs to be applied: per level of expertise, +1; if weather is extremely bad, if the craft is old, or if gunfire is involved in the chase, -1.

Referee: Generally, roll once for a short chase, twice or three times for longer flights. Book 3 provides a more complete description of the air/raft.

ATV: The individual is acquainted with modern all terrain vehicles, and has been trained in, or has experience with, their operation. The term ATV (all terrain vehicle) includes AFV (armored fighting vehicle) within its meaning.

bogged down in mud or sand, or trapped by jungle growth. Generally, driver expertise will serve as a DM (+1 per level) to help avoid such difficulty.

Referee: ATV skill will also serve to allow increased speed and greater maneuverability. It will also allow the individual to diagnose malfunctions within the vehicle, to help repair them, and to perform preventive maintenance on the ATV.

Bribery: The individual has experience in bribing petty and not-so-petty officials in order to circumvent regulations or ignore cumbersome laws. Bribery skill does not guarantee success, but does minimize bad effects if the offer is rebuffed.

should first roll on the reaction table (Book 3) and should not offer to a negatively reacting official. DMs to be applied: no expertise, +5; per level of expertise, +1; if the official reacts as a strong friend on the reaction table (a roll of 12), -2.

Referee: Insure that both the cash offered and the act solicited are reasonable; if not, implement appropriate DMs. Note that the roll for accepting a bribe varies inversely with the law level of a world; the more stringent the laws, the greater the corruption. If a bribe is not accepted, roll 3- for the offer to be reported to higher authorities.

Computer: The individual is skilled in the programming and operation of electronic and fibre optic computers, both ground and ship-board models.

program computers for organizations, ships, or other employers.

Computer programs (especially starship programs as mentioned in Book 2) may be written by characters with expertise. The individual must have access to a computer which will handle the intended program, knowledge of the skill being incorporated, and no other duties or responsibilities during each week of work. Book 2 gives more details.

In spite of all good intentions, there is always the possibility that such a program will have a fatal flaw, and will not function when actually used in space combat. Referee: Throw 7 exactly for a fatal error to be written in. If there is none, throw 5- for a negative DM to appear on the program when used; there is a half chance that the DM will be -1 or -2. These flaws will generally remain hidden until the program is actually used.

Referee: When characters want to write computer programs, the general procedure shown in Book 2 should be used, with modifications for the specific purpose.

Electronics: The individual has skill in the use, operation, and repair of electronic devices. The person is considered handy in this field, with the equivalent of a green thumb talent. This skill includes the repair of energy weapons.

understand, repair, assemble, or operate. Complex items would also require a certain level of education or a very high intelligence; many devices may also require some degree of dexterity.

Referee: Specific throws for specific situations must be generated. Obviously, some throws will be harder than others, and many will be impossible without an accumulation of DMs based on expertise, education, dexterity, intelligence, and the availability of parts and tools.

The ATV is used, in varying forms, on frontier and airless worlds, or in situations where weather, atmosphere, or players' intent preclude the use of air/rafts or aircraft. ATVs are quite reliable (throw 11+ per day for mechanical breakdowns), but are susceptible to off-road difficulties such as becoming

trapped by jungle growth. Generally, driver expertise will serve as a DM (+1 per level) to help avoid such difficulty.

Petty officials can generally be bribed to ignore regulations or poor documentation, requiring a throw of the law level of the world in question or less (plus a cash offer) to do as asked. If the first offer is refused, a second roll may be made with the cash offer doubled. The character offering the bribe

should first roll on the reaction table (Book 3) and should not offer to a negatively reacting official. DMs to be applied: no expertise, +5; per level of expertise, +1; if the official reacts as a strong friend on the reaction table (a roll of 12), -2.

Referee: Insure that both the cash offered and the act solicited are reasonable; if not, implement appropriate DMs. Note that the roll for accepting a bribe varies inversely with the law level of a world; the more stringent the laws, the greater the corruption. If a bribe is not accepted, roll 3- for the offer to be reported to higher authorities.

Computers perform valuable functions in human society, and individuals capable of using them find that their skill is equally valuable. Characters with computer expertise may be hired (when needed) to operate and

program computers for organizations, ships, or other employers.

Computer programs (especially starship programs as mentioned in Book 2) may be written by characters with expertise. The individual must have access to a computer which will handle the intended program, knowledge of the skill being incorporated, and no other duties or responsibilities during each week of work. Book 2 gives more details.

In spite of all good intentions, there is always the possibility that such a program will have a fatal flaw, and will not function when actually used in space combat. Referee: Throw 7 exactly for a fatal error to be written in. If there is none, throw 5- for a negative DM to appear on the program when used; there is a half chance that the DM will be -1 or -2. These flaws will generally remain hidden until the program is actually used.

Referee: When characters want to write computer programs, the general procedure shown in Book 2 should be used, with modifications for the specific purpose.

An advanced technological civilization depends heavily on the use of electronic devices. The need to use, repair, and replace electronic devices is ubiquitous.

Electronic expertise allows a character to use and operate electronic items; generally the skill is a DM applied to the throw to understand, repair, assemble, or operate. Complex items would also require a certain level of education or a very high intelligence; many devices may also require some degree of dexterity.

Referee: Specific throws for specific situations must be generated. Obviously, some throws will be harder than others, and many will be impossible without an accumulation of DMs based on expertise, education, dexterity, intelligence, and the availability of parts and tools.

Engineering: The individual is skilled in the operation and maintenance of starship maneuver drives, jump drives, and power plants.

The engineer is essential for the proper operation of any starships. Expertise qualifies the individual for such jobs, and can be used to get working passage on a ship in need of help. Greater levels of expertise enable the individual to handle problems of greater complexity and jobs with higher levels of responsibility.

Referee: Skill level is generally a DM applied to the throw to remedy an engineering problem. In order to handle the relative value of experience, the DM may be assigned on the basis of +2 per level of expertise.

Forgery: The individual has a skill at faking documents and papers with a view to deceiving officials, banks, patrons, or other persons.

occur (such encounters happen when the law level for a world or less is thrown; generally once or twice per day). The throw for detection of forged or fake documents is 6+; DMs to be applied: -2 per level of expertise.

Referee: Forgery is a useful skill, but control is required to prevent blatant misuse (to provide a bottomless checking account, for example). Note that administration and bribery may also be used to determine whether documents are actually examined by the individuals involved.

Forward Observer: The individual has been trained (in military service) to call on and adjust artillery (projectile, missile, and laser) fire from distant batteries and from ships in orbit.

first shots fired will invariably miss the target. On each subsequent turn in which such fire is delivered, a basic throw of 11+ to hit is required. DMs to be applied: +4 per level of expertise; per turn of adjustment (two minute turns): +1; if adjusting person has no expertise: -4.

Gambling: The individual is well informed on games of chance, and wise in their play. He or she has an advantage over non-experts, and is generally capable of winning when engaged in such games. Gambling, however, should not be confused with general risk-taking.

Games may be crooked (throw 10+ to be dishonest) in which case the referee will stack the odds against the players. Gambling-3 or better will usually detect crooked games (throw 7+ to detect).

Gambling-4 or better may be suspected of cheating and ejected (or worse) due to the finesse of the skill involved (throw 9+ to be suspected; DM -1 per level over 4). Characters may elect to use a lower expertise level in some cases in order to avoid detection of true skill level.

Referee: Characters' die rolls should not be divulged when gambling; instead merely inform the individual of wins and losses. This will serve to conceal any manipulation of the throws.

Gunnery: The basic skill of gunnery is covered on page 13. The individual is trained and competent in the operation of weapons mounted on starships.

Defensive and offensive weapons are mounted on a variety of interplanetary and interstellar vessels. Gunnery expertise qualifies an individual to operate such weaponry, and to be hired on a ship's crew with the title of gunner. Gunnery expertise provides DMs in space combat as covered in Book 2. Gunnery may also be used for similar weapons mounted on ATVs or air/rafts.

Engineering experience enables an individual to operate the vital drives of starships (and interplanetary craft) and to maintain the machinery against failure.

The engineer is essential for the proper operation of any starships. Expertise qualifies the individual for such jobs, and can be used to get working passage on a ship in need of help. Greater levels of expertise enable the individual to handle problems of greater complexity and jobs with higher levels of responsibility.

Referee: Skill level is generally a DM applied to the throw to remedy an engineering problem. In order to handle the relative value of experience, the DM may be assigned on the basis of +2 per level of expertise.

Documents necessary for cargo transfers, bank transactions, personal identification, and many other purposes are often closely inspected by officials such as the police, customs agents, or clerks when encounters

occur (such encounters happen when the law level for a world or less is thrown; generally once or twice per day). The throw for detection of forged or fake documents is 6+; DMs to be applied: -2 per level of expertise.

Referee: Forgery is a useful skill, but control is required to prevent blatant misuse (to provide a bottomless checking account, for example). Note that administration and bribery may also be used to determine whether documents are actually examined by the individuals involved.

Modern fire support can be a tremendously effective weapon, when available, but is virtually useless unless the technique of its application and adjustment is known. If artillery of any form (including communication with the firing battery) is available, the

first shots fired will invariably miss the target. On each subsequent turn in which such fire is delivered, a basic throw of 11+ to hit is required. DMs to be applied: +4 per level of expertise; per turn of adjustment (two minute turns): +1; if adjusting person has no expertise: -4.

Organized games (as at casinos) allow bets of up to Cr5000, and require a throw of 9+ to win. Private games allow bets ranging from Cr50 to Cr5000, and require a throw of 8+ to win. Gambling skill allows a DM of +1 per level, but the house will always win on a throw of 2 exactly.

Games may be crooked (throw 10+ to be dishonest) in which case the referee will stack the odds against the players. Gambling-3 or better will usually detect crooked games (throw 7+ to detect).

Gambling-4 or better may be suspected of cheating and ejected (or worse) due to the finesse of the skill involved (throw 9+ to be suspected; DM -1 per level over 4). Characters may elect to use a lower expertise level in some cases in order to avoid detection of true skill level.

Referee: Characters' die rolls should not be divulged when gambling; instead merely inform the individual of wins and losses. This will serve to conceal any manipulation of the throws.

Defensive and offensive weapons are mounted on a variety of interplanetary and interstellar vessels. Gunnery expertise qualifies an individual to operate such weaponry, and to be hired on a ship's crew with the title of gunner. Gunnery expertise provides DMs in space combat as covered in Book 2. Gunnery may also be used for similar weapons mounted on ATVs or air/rafts.

Jack of All Trades: The individual is proven capable of handling a wide variety of situations, and is resourceful in finding solutions and remedies.

The well-rounded individual (the renaissance man, so to speak) is uncommon in all societies, but is naturally proficient when he or she occurs.

This skill is a general ability which may be applied to nearly any endeavor at the discretion of the referee. The jack of all trades can attempt activity which is not normally possible due to the absence of skills or expertise. Unskilled people have no idea how to even start many projects; jack of all trades can apply this skill to such a project as if he or she has the skill. Jack of all trades can be considered to confer skill level-0 in every other skill (but never level-1).

For example: one of a group of adventurers arrives at an aging crisis (page 8) while on an expedition into the wilds of a unsettled planet. No one has medical expertise. Jack of all trades can be applied as a substitute for medical skill in this situation; the referee should assume that the person has studied independently at some time or has seen such a crisis previously and knows something of what to do. When using jack of all trades skill, the referee should also consider appropriate personal characteristics (intelligence, education), availability of equipment (drugs, medical instruments), and other factors (weather, shelter, the specific situation).

Jack of all trades, however, is never sufficient for an individual to achieve standing in another skill. Use of the skill in medical situations does not imply medic skill. Use of the skill to pilot a ship in an emergency does not imply pilot skill.

Leader: The individual has led troops in battle (or on adventures) and is possessed of a knowledge and self-assurance which will make for a capable emergent or appointed leader.

Leadership is a required ability to control a group of more than six non-player hirelings or soldiers. Such a group will tend to obey the general orders of the character with the highest leader expertise. Reaction throws are

necessary when the leader and the group first meet. DMs may be applied: +1 per level of leader expertise when consulting the reaction table (Book 3).

Leader-3 or better is sufficient to allow soldiers to obey orders without hesitation.

Leader-4 or better will allow a positive DM when recruiting soldiers or hirelings for adventures. The throws for such hirelings, and DMs, depend on the situation.

Mechanical: The individual has skill in the use, operation, and repair of mechanical devices. The person is considered to be handy in this field, with a talent similar to that of a green thumb. This skill specifically excludes the field of engineering; it does include non-engineer weapon repair.

Many of the devices of civilization are strictly mechanical in nature, and the need to repair, replace, or simply use them pervades life. Mechanical expertise allows a character the ability to operate mechanical devices easily, as well as to repair them quickly and efficiently.

Any situation requiring a knowledge of mechanical aspects of devices or equipment can be affected by mechanical skill.

Referee: Specific throws for specific situations must be generated. Obviously, the throw to fabricate a new main drive bearing as a starship plunges into a flaming sun would be harder than the throw to repair a broken air lock hatch while in port. Success in any mechanical enterprise is also affected by such variables as tool availability, personal strength and dexterity, education, and situation.

Medical: The individual has training and skill in the medical arts and sciences.

Medical science is capable of great feats in preserving and maintaining the health and welfare of individuals. The services of medically trained individuals are in great demand. The levels of medical skill represent steps in increasingly better ability and knowledge.

Medical-1 is sufficient to qualify a character for the position of medic on a starship crew. An expertise of medic-2 or better allows a DM of +1 when reviving low passengers (each normally throws 5+ to revive after a trip; otherwise the passenger dies).

Medical-3 is sufficient to qualify a character for the position of medic on a starship crew. An expertise of medic-2 or better allows a DM of +1 when reviving low passengers (each normally throws 5+ to revive after a trip; otherwise the passenger dies).

Medical-3 is sufficient for a character to be called doctor, and assumes a license to practice medicine, including writing prescriptions, handling most ailments, and dealing with other doctors on a professional level. A dexterity of 8+ is required for a doctor to also be a surgeon.

Xeno-Medicine: Normally, medical expertise is considered to apply to humans, and to a limited extent to the animals which live on human worlds. Anyone with medical expertise can apply that expertise (with a reduction of -2) to non-human aliens. For example, a human doctor (medical-3) may find herself in a situation which calls for treatment of an alien, with anatomy and physiology unfamiliar to her. She could provide treatment with the equivalent of medical-1. Obvious encumbrances such as strange environment or unfamiliar chemistry should also be considered by the referee.

Navigation: The individual has training and expertise in the art and science of interplanetary and interstellar navigation.

Travel between worlds depends on the starships and their crews; the navigator is relied upon to plot the course and to insure that correct information is made available to

the pilot and crew as they need it. The navigator interprets the long-range data provided by the ship's scanners and detectors.

Navigation expertise qualifies a character for the job position of navigator on a starship or interplanetary vessel.

Referee: In general, navigation skill allows a character to perform in a starship crew position which requires this type of skill. On exploratory missions, or when venturing into unexplored territory, navigation skill may be used to assist in the speedy computation of courses, in the accurate determination of courses, and in the determination of position when lost or strayed.

Navigation expertise can assist an individual in land or sea navigation as well. In any situation where directions need to be known or location must be determined, navigation expertise can be used as a DM of +1 per level on a throw to determine the needed information. The only requirement is that the night sky must be visible from the planetary surface.

Pilot: The individual has training and experience in the operation of starships and large interplanetary ships. This skill encompasses both the interplanetary and the interstellar aspects of large ship operation.

Interstellar travel depends on starships and their crews; the single most important crew position is that of the pilot, responsible for control of the starship's lift-offs, landings, and routine flight.

Pilot expertise qualifies a character for the job of pilot on a starship or interplanetary vessel over 100 tons.

Referee: Pilot expertise is usable as a DM in handling of starships as they move from world to world. Pilot expertise generally refers to interstellar ships; much of the ordinary operation, however, is similar to that of interplanetary craft and pilot expertise also applies to large interplanetary craft (100 tons and up). Small interplanetary craft (under 100 tons) handle somewhat differently; pilot expertise minus 1 may be used as ship's boat expertise as applied to interplanetary vessels under 100 tons; thus, an individual with pilot-3 could also operate a small craft interplanetary vessel as if he or she had a skill of ship's boat-2. The reverse is not true.

Ship's Boat: The individual is familiar with the function and operation of small interplanetary craft collectively known as ship's boats. These craft range in size from five to 100 tons, and include shuttles, lifeboats, launches, ship's boats, and fighters.

The small interplanetary craft carried as auxiliaries or boats on larger ships, or serving the needs of bases and stations, are distinctly different from the large vessels which ply the space lanes. Ship's boat expertise reflects a distinct experience and training in the operation of these craft. Pilot expertise minus 1

can be used as the equivalent level of ship's boat expertise.

Referee: Ship's boat skill is used as a DM in handling throws to determine various operations and their results. The following examples should illustrate this concept. Assume a hostile attack on a pinnacle (small craft) flown by a character with ship's boat-2. Throw 10+ for the pinnacle to escape on contact and avoid the attack; DM +2 based on the skill. Throw 8+ to avoid being hit by enemy fire if the escape attempt fails; DM +2, again based on the skill. Alternate these throws until either escape succeeds or the craft is hit. If the pinnacle is hit, throw 5+ for it to be crippled and boarded; 4- for the craft to be destroyed; no DMs apply to this throw for damage type.

Similarly, assuming bad weather (storms, wind, etc) at a planetary surface landing point, throw 9+ to land safely; +2 per level of expertise above 1.

Steward: The individual is experienced and capable in the care and feeding of passengers: the duties of the ship's steward.

The various duties necessary, and serves as an advantage when attempting to get such a job.

Referee: Steward skill represents a general awareness of cooking, personal care and attention, and other areas of experience which will make passengers and crew happy and content with their conditions of passage.

Streetwise: The individual is acquainted with the ways of local subcultures (which tend to be the same everywhere in human society), and thus is capable of dealing with strangers without alienating them. This skill is not the same as alien contact experience.

contraband or stolen goods, and other shady or borderline activities.

Referee: After establishing throws for various activities desired by the characters (such as the name of an official willing to issue licenses without hassle: 5+; the location of high quality guns at low prices: 9+), allow streetwise as a DM on the throw. If no streetwise expertise is used, impose a DM of -5.

Tactics: The individual has training and experience in small unit tactics (up to and including units of 1000 troops or individual spaceships). This skill is not to be confused with strategy, which deals with the reasons for the encounter and the intended results of the encounter; strategy is the realm of the players, rather than the characters.

amount of information available to the character in the miniature figure resolution of a battle which uses hidden movement, or could be applied as a DM in crucial situations.

Tactical skill should be considered by the referee when the character is applying for employment which might find such skill useful.

Vehicle: The individual is skilled in the operation, use, and maintenance of a specific type vehicle commonly available in society.

The individual immediately selects one vehicle from one of the following groups and gains one level of skill in that specific type. The groups available are: ground car, watercraft, winged craft (including helicopters), hovercraft, and grav belt. Individual vehicles within a class may be found in Book 3, beginning on page 20. In the case of ground car, winged craft, and watercraft, other similar vehicles may be operated by the individual at skill level minus 1 (the ground car class includes ATV). Vehicle skill is used for operation and as a DM against accident, and may also be used for assistance in repairing and maintaining a vehicle.

Vacc Suit: The individual has been trained and has experience in the use of the standard vacuum suit (space suit), including armored battle dress and suits for use on various planetary surfaces in the presence of exotic, corrosive, or insidious atmospheres.

suit (including running, jumping, hiding, jumping untethered from one ship to another, or other such activity). Allow a DM of +4 per level of expertise. When such an incident occurs, it may be remedied by any character with vacc suit skill (including the character in danger) on a throw of 7+; DMs: per level of expertise, +2; if no expertise, -4. Battle dress and combat armor are special forms of armored vacc suit and require at least vacc suit-1 to wear at all.

The responsibility for the welfare of passengers aboard a starship falls on the ship's steward. Although anyone can be hired as a ship's steward, this skill represents training in

Close-knit subcultures (such as some portions of the lower classes, trade groups such as workers, and the underworld) generally reject contact with strangers or unknown elements. Streetwise expertise allows contact for the purposes of obtaining information, hiring persons, purchasing or selling

When small units encounter hostile forces (in battle, by ambush, or while adventuring), tactical skill can provide an advantage in gaining victory or reducing the disaster of defeat.

Referee: Because tactical skill is an intangible, the exact results in battle are left to the referee to implement as necessary or prudent. It might influence the type and

The individual immediately selects one vehicle from one of the following groups and gains one level of skill in that specific type.

The groups available are: ground car, watercraft, winged craft (including helicopters), hovercraft, and grav belt. Individual vehicles within a class may be found in Book 3, beginning on page 20. In the case of ground car, winged craft, and watercraft, other similar vehicles may be operated by the individual at skill level minus 1 (the ground car class includes ATV). Vehicle skill is used for operation and as a DM against accident, and may also be used for assistance in repairing and maintaining a vehicle.

Non-breathable atmospheres or hostile environments can be easily overcome by use of protective equipment, but the danger of minor mishaps becoming fatal remains great. A basic throw of 10+ to avoid a dangerous situation applies whenever any non-ordinary maneuver is attempted while wearing a vacc

OTHER SKILLS

The above list of skills is certainly not exhaustive. Additional skills may be encountered.

Creating New Skills: The experience rules of Book 2 indicate methods by which an individual can learn additional skills after he or she begins actively adventuring. Those rules also cover the requirements for creating a new skill not otherwise detailed in the **Traveller** rules. For example, if a new weapon is developed (perhaps a laser pistol), a new skill would be required to enable its use.

Default Skills: Often, some characters will have no skills appropriate to a given situation. A journey across a vacuum plain may be called for, and no one has vacc suit skill. In such cases, the referee may indicate that all individuals not otherwise skilled have vacc suit-0. A level of 0 for a skill indicates that the individual can undertake ordinary activities, but is not experienced enough to try dangerous activities or fancy actions. Level-0 indicates an orientation to the skill by an experienced person; it should not be taken as a stepping stone to level-1. Skills appropriate for level-0 are: air/raft, ATV, forward observer, steward, vacc suit, and weapons.

OTHER BENEFITS

In addition to the skills acquired while actually in service, the following skills and substantial rewards can be acquired through the mustering out procedures.

Retirement Pay: Any character who leaves the service at the end of the fifth or later term of service is considered to have retired, and receives retirement pay. This pension is paid at the

RETIREMENT PAY	
5 terms	Cr4000
6 terms	Cr6000
7 terms	Cr8000
8 terms	Cr10,000

Service beyond the eighth term adds Cr2000 per additional term. Retirement pay is not available to characters who have served in the scout or the other service.

Travel Allowances: The mustering out procedure makes a variety of benefits available which may generally be called travel allowances. Such allowances take three basic forms: money, passages, and Travellers' Aid.

Money: The cash table (page 14) indicates specific amounts of money which become available. Some portion of the money should be considered severance pay or life's savings; the remainder is a travel allowance.

Passages: The skills and benefits table (page 14) includes passages, or tickets, for travel. They are acquired in blank, and represent one passage, or trip, between one world and the next world visited by the starship. They are available in three forms: high passage, middle passage, and low passage. Passages may be retained and used as needed, or they may be cashed in at 90% of their face value.

High passage includes first class accommodations and excellent cuisine, and allows up to one ton of baggage. High passage costs Cr10,000 when purchased.

Middle passage includes second class accommodations (although still of reasonably good quality) and passable food and drink, and allows up to 100 kilograms of baggage. The passenger is expected to tend to his or her own affairs (maid service, laundry, cleaning, etc) during the voyage. Middle passage costs Cr8000 when pur-

chased, and is subject to stand-by conditions; the ticket holder may be bumped if a high passenger appears (the middle passage ticket being returned in such cases).

Low passage involves travel in cryogenic capsules (cold sleep, or suspended animation), and the traveller is unconscious for the course of the journey. A character does not age while in cold sleep. Because of the intrinsic dangers of this method of travel, a basic throw of 5+ applies when the journey is over and the low passenger is revived. Failure of the throw results in death; a DM of +1 is allowed if there is an attending medic-2 or better, DM -1 if the low passenger has endurance of 6 or less. Low passage costs Cr1000 if purchased, and includes a baggage allowance of 10 kilograms.

Travellers' Aid: The Travellers' Aid Society is a private organization which maintains hostels and facilities at all class A and B starports in human space. Such facilities are available (at reasonable cost) to members and their guests.

Travellers' Aid Society membership may be acquired upon mustering out while using the skills and benefits table. Once this benefit is achieved, further receipt of the benefit has no effect; membership may be achieved only once per character. Receipt of membership in the Travellers' Aid Society upon mustering out may be construed as a reward for heroism or extraordinary service to the Society, rather than an official benefit of the service.

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. Membership is for the life of a character, and is not transferrable. The Travellers' Aid Society invests its membership fees and other income; it uses its capital and return to provide benefits to its members. Every two months, it pays dividends in the form of one high passage to each member. This passage may be used, retained, or sold.

Material Objects: The mustering out procedure makes two types of material objects available: weapons and starships.

Weapons: The skills and benefits table indicates as results blade or gun; in such cases, a character may choose any weapon in the category. If, while mustering out, the same benefit is received again, the character has the option of taking another example of the same weapon, selecting a different weapon, or taking the benefit as +1 in skill in the weapon previously received. For example, the benefit blade entitles the character to select any blade weapon, and he chooses cutlass. On the next benefit roll, he again receives blade as a benefit. At this point, he could select a different blade (perhaps foil), choose cutlass again (giving him two cutlasses), or elect to take expertise in the weapon he has already received (giving an expertise of cutlass-1). Expertise may only be taken in a weapon received as a benefit.

Starships: Two types of starships are available as mustering out benefits: type A free traders and type S scout/couriers.

The type A free trader is a 200-ton cargo vessel equipped to handle both freight and passengers. The ship and details on the financial circumstances noted below are fully described in Book 2. Receipt of this ship as a benefit confers possession of the ship, but also liability for the monthly payments (about Cr150,000) for the next forty years. Fuel, crew, and other expenses must also be handled by the character. If the ship benefit is received more than once, each additional receipt is considered to represent actual possession of the ship for a ten-year period. The ship is thus ten years older, and the total payment term is reduced by ten years. It is possible for a

character to own a ship, free and clear, by successively rolling the ship benefit five times (once to obtain it, and four times to pay off the four 10-year sequences of payment). The ship is also forty years old.

The type S scout/courier is a 100-ton dispatch vessel of a type very common within human space and fully described in Book 2. It is the policy of the scout service to make available such surplus scout ships to selected individuals on a reserve basis. The vessels are (hopefully) put to good use while they are not required in service, and both the ship and its pilot are available for recall to duty when needed. Only one scout ship may be acquired by a character; further receipt of this benefit results in no further effect. Possession of the scout ship is at the pleasure of the scout service, and it cannot be sold by the character. The ship may be used as desired. Fuel is free at scout bases. Maintenance is free at the scout bases at class B starports. The character is responsible for both upkeep and crew costs.

Characteristic Alterations: Finally, the skills and benefits tables makes provision for some characteristic alterations. These tend to be increases in education or intelligence, and are applied to the character immediately.

A NOTE ON GENDER AND RACE

Nowhere in these rules is a specific requirement established that any character (player or non-player) be of a specific gender or race. Any character is potentially of any race and of either sex.

FORMATS

Characters may be referred to in a variety of ways. The simplest involves an identification of the character's occupation or name, followed by the UPP (universal personality profile). For example, Arlent Streen, businessman, 895678.

When more detail is needed, or to be more precise, the following format should be used. It indicates rank and service, and can include name. The UPP, age, and terms of service make it easy for the referee or the players to relate any prior career to the present situation. The credit balance shows how much money the person has available. The second line indicates the skills the person has, and (at the far right) any personal possessions of import.

1	Retired Scout	99397A	Age 38	5 terms	Cr2,000
	Pilot-1, Vacc-2, Navigation-2, Shotgun-2				Shotgun, Scout Ship
2	Ex-marine Trooper	AB8B67	Age 34	4 terms	Cr2,000
	Cutlass-2, Vacc-1, Brawling-1, Autorifle-1, Mechanical-1				Cutlass
3	Ex-navy Ensign	756B88	Age 26	2 terms	Cr2,000
	Medical-2, Computer-2, Vacc-0, Carbine-0, Blade-1				Blade, Travellers'
4	Ex-marine Force Commander	8B5B88	Age 30	3 terms	Cr2,000
	Cutlass-1, Revolver-1, Vacc-3, Laser Rifle-2, ATV-1, Brawling-1				Cutlass
5	Ex-merchant 2nd Officer	8A6894	Age 26	2 terms	Cr1,000
	Streetwise-1, Vacc-1, Pilot-1, Revolver-2, Gunnery-1				Revolver
6	Ex-army Captain	7996A9	Age 30	3 terms	Cr2,000
	Rifle-1, SMG-1, Vacc-1, Air/Raft-1, Forward Observer-1, Brawling-3				SMG
7	Ex-other	856994	Age 26	2 terms	Cr1,000
	Electronic-1, Vacc-0, Computer-1, Bribery-1, Shotgun-0				Shotgun

CHARACTER GENERATION EXAMPLE

The following example is given to illustrate the process of character generation. Actual die throws are shown in brackets, as are comments on the application of game rules. Die modifications are labelled DM.

Alexander Lascelles Jamison. Having just finished school, Jamison sets out to win his fortune in the universe. Taking stock of himself and his personal qualities [generate all six personal characteristics; he rolls, consecutively, 6, 8, 8, 12, 8, 9] he soon decides that his UPP of 688C89 adapts him best for the merchant service. He visits his local starport, checks out the situation [required roll of 7+ to enlist, with a DM of +2 allowed for his intelligence of greater than 6; he rolls 5 (+2=7)], and just barely manages to convince a merchant captain to let him sign on.

First Term: During his first term of service [survival roll required is 5+, with a DM of +2 allowed for intelligence; he rolls 11 (+2=13)] he faces no great dangers, merely the humdrum of day-to-day events. His application for a commission [required roll of 4+, DM of +1 allowed for intelligence; he rolls 7(+1=8)] is a mere formality. As a 4th officer, he proves hard-working and efficient [promotion roll required is 10+, with a DM of +1 for intelligence; he rolls 10 (+1=11)], and is quickly promoted one rank. 3rd Officer Jamison clearly feels that he has found his place in life, and decides that he would like to continue in service [reenlistment roll of 4+ required, no DMs; he rolls 7] and reenlists. He has become eligible for four skills during this term of service [two for the initial term, one for obtaining a commission, and one for being promoted]. The work as 4th officer was, at times, strenuous [Table 1, roll 1= +1 strength] but he certainly developed his muscles. While learning the details of his job and dealing with people [Table 1, roll 5= blade combat] he learns to handle a dagger. Routine operations [Table 2, roll 2= vacc suit] require that he learn to handle himself in a vacuum suit. Finally [Table 2, roll 5= electronics], he takes an elementary course in electronics.

Second Term: The rapidly maturing Jamison suddenly finds himself faced with some of the dangers of the merchant service [survival throw required is 5+, with a DM of +2 allowed for intelligence; he rolls 3, which is the lowest it is possible to roll and still survive (+2=5)], possibly a pirate raid. He does stay alive, however. His continued efficiency [promotion throw of 10+ with a DM of +1 for intelligence; he rolls 12 (+1=13)] gains him his desired promotion to 2nd officer. He signs on for a third term of service [reenlistment throw of 4+ required, no DMs; he throws 6] and is accepted. He is eligible for two skills this term [one for service and one for his promotion]. He goes on a physical fitness kick [Table 1, roll 3= +1 endurance] and learns to better defend himself [Table 2, roll 4= gun combat] using the small body pistol.

Third Term: Jamison's third term is rather uneventful [survival throw of 5+, DM of +2 for intelligence; he rolls 9 (+2=11)]. Unfortunately [promotion roll of 10+ required, DM +1 for intelligence; he rolls 8 (+1=9)], he fails the examination for 1st officer by two points, and does not receive a promotion. Determined to succeed, he reenlists [reenlistment roll of 4+ required, no DMs; he rolls 10]. He is eligible for one skill [Table 2, roll 5= electronics] and studies an advanced course in electronics to increase his knowledge.

Fourth Term: Things go right in the fourth term for Jamison. Facing little danger [survival throw of 5+ required, DM +2 for intelligence allowed; he rolls 7

(+2=9)], he also passes his 1st officer exam [promotion throw of 10+ required, DM +1 allowed for intelligence; he throws 12 (+1=13)] easily, receiving his promotion and an automatic pilot-1 expertise. Reenlisting again, he begins a fifth term of service [reenlistment roll of 4+ required, no DMs; he rolls 7]. He is eligible for two skills this term. He trains himself in the martial arts [Table 1, roll 5= blade combat], choosing the cutlass and [Table 2, roll 4= gun combat] the submachinegun. Finally, this being the end of his fourth term, Jamison is (for the first time) susceptible to aging [saving throws for strength (8+), dexterity (7+), and endurance (8+) are made; he rolls 12, 7, and 9, resulting in no changes].

Fifth Term: Beginning his fifth four-year hitch [survival roll of 5+ required, DM +2 for intelligence; he rolls 7 (+2=9)], he stands for promotion [promotion roll of 10+ required, DM +1 for intelligence; he rolls 10 (+1=11)] and makes captain. At this point [reenlistment throw of 4+ required, no DMs allowed; he rolls 3], the service falls on hard times, and notifies Jamison that it will no longer require his services after the current term. He is eligible to retire (with a pension of Cr4000 per year). His service entitles him to two final skills. He studies [Table 4, roll 5= pilot] to improve his piloting skill, and [Table 3, roll 3= electronics] continues his interest in electronics. Age also begins to take its toll [throw for strength (8+), dexterity (7+), and endurance (8+); he rolls 9, 6, and 11, resulting in the reduction of his dexterity by one point] with a slight decrease in his health.

Mustering Out: Having completed twenty years of active duty in the merchant service, Captain Jamison is eligible for a variety of service benefits [five rolls on the tables for terms served, plus two by virtue of his rank; in addition, he is allowed +1 on all rolls on the benefits table]. He receives [cash table, roll 4= Cr20,000] a severance bonus of Cr20,000, [benefits table, roll 5 (+1=6)= +1 education] an educational benefit, [benefits table, roll 6 (+1=7)= merchant ship] possession of a merchant ship, [benefits table, roll 2 (+1=3)=middle passage] a travel allowance, [benefits table, roll 6 (+1=7)= merchant ship] credit for participation in the ship acquisition program, [benefits table, roll 6 (+1=7)= merchant ship] credit for more participation in the ship acquisition program, [benefits table, roll 6 (+1=7)= merchant ship] and more credit for participation in the ship acquisition program. Jamison has apparently been putting much of his salary and ship profits into a continuing program dedicated to acquiring a ship; now he has one, and thirty years of the forty year payment schedule have already been paid off.

Alexander Lascelles Jamison is now 38 years old, a retired merchant captain, with a pension of Cr4000 per year, and a healthy cash balance. His single middle passage, useless to him as a shipowner, has been converted to cash (Cr7,200). Considering that the merchants forced him out of the service at the peak of his career, he has some slight resentment against the merchant service.

Merchant Captain Alexander Jamison 779C99 Age 38 5 terms Cr33,200
Dagger-1, Cutlass-1, Vacc Suit-1, Pilot-2, Body Pistol-1, SMG-1, Electronic-3
Owns a type A free trader, with ten years payments remaining.

PERSONAL HISTORY AND DATA FORM

The Travellers' Aid Society Form (TAS Form 2) on the next page is intended to allow players and referees to maintain records on their more important characters. It may be photocopied or locally reproduced for use by travellers.

Combat

As adventurers journey through the cities and the wilds of the worlds they visit, they will encounter both men and beasts. At times, the only way such encounters can be dealt with is by force. To this end, the following combat system is provided.

BASIC COMBAT CONCEPT

This combat system is intended to cover situations where a party of adventurers (of one or more characters) encounters a party of people or beasts, and violence is offered by either side. The actual circumstances of each encounter are governed by the referee, in accordance with the encounter provisions of Book 3. Those rules provide for the likelihood of encounters and for the basic reaction of the other party to the encounter.

Combat is based on successive attacks by each character involved (blows if brawling, swings with blade weapons, and shots with guns). A basic throw of 8+ is required in every case to obtain a hit; that throw is subject to die modifications (DMs) for such considerations as range between the two parties, attacker and defender expertise in the weapons they are using, the types of weapons used, surprise, and other factors. If a hit is obtained, wounds are inflicted based on the type of weapon which made the hit.

Each combat round lasts 15 seconds. Combat continues until one party is vanquished, flees, dies, or surrenders.

PROCEDURE

Once an encounter occurs, the following procedure is used to determine the process of resolution of combat. Steps 1, 2, and 3 are executed only once per encounter. Step 4 is performed cyclically until the combat is concluded.

Surprise: Surprise is possible for either party, and the element of surprise gives an advantage both in attacking and in avoiding the enemy. Roll one die for each party: if one party has a die roll of three or more greater than the other party, the higher rolling party has achieved surprise. DMs are allowed for each party depending on expertise and situation, as shown in the surprise DM table.

Only one party can achieve surprise, and it is possible that neither party will achieve surprise. If no surprise is achieved, both parties are considered to be aware of each other at the range of the encounter.

COMBAT PROCEDURE

1. Determine if either party has the element of surprise.
2. Determine the initial range which separates the parties.
3. Determine if escape or avoidance for either party is possible or warranted.
4. Resolve actual combat using a series of combat throws.
 - A. Each character indicates his or her movement status.
 - B. Each character indicates his or her attack and target.

A party with the element of surprise may elect to avoid contact with the other party; see escape and avoidance.

A party with the element of surprise may attack with surprise swings, blows, and shots until surprise is lost. The endurance rule contains the definition of surprise blows. Surprise is lost when a member of the other party gives the alarm in some manner. All unsilenced shots will alert the enemy to an attack; silenced pistols, laser weapons, and all guns in vacuum do not make any noise when fired. Any character who is hit but not rendered unconscious will make

SURPRISE DMs

Leader skill	+1
Tactical skill	+1
Military experience . . .	+1
In a vehicle	-1
8 or more adventurers . .	-1
10 or more animals . . .	-1
Pouncer animals	+1

TERRAIN DMs

Clear, Road, Open . . .	+3
Prairie, Plain, Steppes .	+3
Rough, Hills, Foothills .	+2
Broken, Highlands . . .	+2
Mountain, Alpine . . .	+3
Forest, Woods	+1
Jungle, Rainforest . . .	-
River, Stream, Creek . .	+1
Swamp, Bog, Marsh . . .	-4
Desert, Dunes, Sand Sea	+4
Maritime Surface	+2
Maritime Subsurface . .	-1
Arctic	+2
City	-4
Building Interior, Cave .	-5

sufficient noise (probably a scream) to raise the alarm. If the alarm is not raised in this manner, there is a chance (throw 9+ for it to occur) that an un-attacked comrade in the defending party will see the person fall and give the alarm. Surprise continues until it is lost, and may thus continue indefinitely. Once surprise is lost, normal combat begins.

Because all attacks (shots, blows, and swings) are made simultaneously, all members of the attacking party may each make one attack as a surprise if the party has surprise. If surprise is not lost, each member of the party may make another surprise attack. This continues until surprise is lost. Because the attacks are simultaneous, everyone completes their surprise attacks even if one of them results in the loss of surprise.

Range: Encounters initially occur at any one of five ranges: close, short, medium, long, or very long. The specific initial range of an encounter is dependent on the referee's specific statement, or on a two-dice roll using the encounter range table. Throws on the range table are subject to DMs from the terrain DM table. In essence, the DMs take into account the altered probabilities of specific encounter ranges in differing terrain types. An encounter at close range is much less likely on a prairie than in a city, for example. Determine the DM from the terrain DM table and apply it to a two-dice roll on the encounter range table. The result indicates the range at which the two parties encounter.

For reference purposes, the distance equivalents of the ranges used in combat are given in the range table on the next page.

Escape and Avoidance: Encountering parties may attempt to avoid contact with, or escape from, an encounter. A party which has achieved surprise may always avoid an encounter by so stating. Non-player character parties which have surprise

ENCOUNTER RANGE

1	Short
2	Close
3	Short
4	Medium
5	Short
6	Medium
7	Medium
8	Long
9	Medium
10	Very Long
11	Long
12	Very Long
13	Very Long

RANGES

Close: in physical contact; touching.

Short: at sword or polearm point, approximately 1 to 5 meters.

Medium: at pistol range, from 6 to 50 meters.

Long: at rifle range, from 51 to 250 meters.

Very Long: at extreme range, from 251 to 500 meters.

parties encounter without surprise, either may attempt to escape immediately (before any combat or contact occurs). Roll 9+ to escape (DM allowed based on range: -1 if short range, +1 if medium range, +2 if long range, +3 if very long range). A non-player character party will attempt to escape at the option of the referee, based on the situation. Animals operate under different rules, as explained in Book 3.

Close: in physical contact; touching.
Short: at sword or polearm point, approximately 1 to 5 meters.
Medium: at pistol range, from 6 to 50 meters.
Long: at rifle range, from 51 to 250 meters.
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MOVEMENT

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.

RANGE BANDS

Close, Short: 0

Close, Short: 0
Medium: 1 to 2
Long: 3 to 10
Very Long: 11 to 20

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.

[illegible]

Before each combat round, each character must state his or her movement status. The four possible movements 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 is resolved in a series of attacks represented by dice throws made by the combatants. A series of such throws, in which each participating individual capable of making a combat throw makes one, is called a combat round. Combat rounds continue until the battle is resolved by the defeat of one party through rout, death, or surrender.

Basic Required Throw: During each combat round, each combatant selects a member of the opposing party as a target. He or she must then make a basic throw of 8+ to hit the target, and if successful, then determine the wounds inflicted.

The basic throw of 8+ is subject to a variety of applicable die modifiers, including armor/weapons relation, range, strength of attack (combat or weakened blows), movement status, attacking and defending expertise, and other aspects. The weapon matrix indicates weapon/armor relation; the range matrix indicates range effects; the weapon table indicates the effects of strength and dexterity, and of weakened blows. Other DMs are called for by later sections of these rules.

All DMs to the basic throw to hit are cumulative, being added together and then applied to the basic throw. It is important to remember that adding negative numbers (DMs) is subtracting ($3+1=4$; $3+-1=2$; $-3+-1=-4$).

Roll two dice and modify by the DM created; if the modified result is 8 or greater, the attack has achieved a hit on the target. If a hit is achieved, the wound column on the range matrix must be consulted to determine the extent of the wounding which has occurred.

Wounding and Death: The wound column indicates the amount of damage which has been inflicted on the target if a hit is achieved, and is dependent on the

type of weapon used (not the strength of the character or of the blow). The abbreviation used in the wound column is a capital D, meaning die or dice. The number before the D indicates the number of dice to be thrown: thus 3D means that the wound has inflicted hits equal to the throw of three dice.

Wound points are applied to the target's (defending character's) strength, dexterity, and endurance on a temporary basis. Each die rolled (for example, each of the two dice rolled in a result of 2D) is taken as a single wound or group of hits, and must be applied to a single characteristic.

The first wound received by any character, however, can be sufficient to stun or daze him or her, and is handled differently. This first wound is applied to one of the three physical characteristics (strength, dexterity, or endurance) determined randomly. As a result, first blood may immediately incapacitate or even kill.

When any one characteristic is reduced to zero by wounds, the character is rendered unconscious. When two have been reduced to zero, the character has been seriously wounded. When all three have been reduced to zero, the character is dead. Once a characteristic has been reduced to zero, further points may not be applied to it; they must be applied to other (non-zero) characteristics.

Unconscious characters (with at least one characteristic reduced to zero) recover consciousness after ten minutes (40 combat rounds) with all characteristics temporarily placed at a value half way between full strength and the wounded level. For example, a character with a strength of 8 who is wounded to a strength of 4 (and rendered unconscious through the zeroing of another characteristic) becomes strength 6 when he regains consciousness, and remains so until recovered. Round fractions against the character. A return to full strength for the character requires medical attention (a medical kit and an individual with at least medical-1 skill), or three days of rest.

Unconscious characters with two characteristics reduced to zero are considered seriously wounded and recover consciousness after three hours. Their characteristics remain at the wounded level (or 1, whichever is higher). Recovery is dependent on medical attention (a medical facility and an individual with medical-3 skill; recuperation to full strength without medical attention is not possible).

THE EFFECTS OF CHARACTERISTICS

Personal characteristics can affect combat, being the source of die modifications based on weapons and the duration of the battle.

Strength: The efficiency of various blows and swings (but not of shots) is dependent on personal strength. The weapons table indicates both a required strength level and an advantageous strength level for all blade and brawling weapons. A character using a specific weapon who does not have strength equal to or greater than the required strength level for that weapon is subject to the negative DM (applied to the basic throw to hit) stated in the weapon table. For example, a character with strength 5 does not meet the required strength of 7 for the cutlass, and if using that weapon is subject to a DM of -2.

A character of great strength, equal to or greater than the advantageous strength level stated for a specific weapon being used, is eligible for a positive DM (applied to the basic throw to hit) given in the table. For example, a character with strength 11 or greater is allowed a DM of +2 when using the cutlass.

Dexterity: The accuracy of shots is dependent on the dexterity of the char-

acter firing the weapon. In a manner similar to the effect of strength on swings and blows, the weapons table indicates the required and advantageous dexterity levels for guns, and shows the positive and negative DMs which should be applied to the basic throw to hit.

Endurance: The number of blows and swings which may be made, and their impact, is dependent on endurance. For this purpose, all blows and swings may be classed into one of four classes: surprise, combat, weakened, and special.

Surprise blows and swings are completely unrestricted; as long as the attacking character retains the element of surprise, he or she may make surprise blows and swings without limit (but only one per combat round).

Combat blows and swings are the ordinary attacks made in the course of battle after surprise is lost. A character may make a number of combat blows and swings which does not exceed his endurance; a character with endurance 9 may make 9 combat blows. Once this allowance has been used up, the character may make no more combat blows until he has rested for at least thirty minutes.

Weakened blows and swings are those attacks made after the combat blow and swing allowance has been used up. Each weakened blow or swing is subject to the negative DM indicated in the weapons table. Any number of weakened blows and swings may be made. To conserve strength, a character may elect to make any blow or swing weakened, and thus not have it counted against his endurance limit.

Special blows and swings are allowed in situations in which strength would not normally be a factor, such as against an unconscious opponent. Special blows and swings are not weakened, and may be made at any appropriate time without affecting the endurance limit.

Note that a character is allowed only a specific number of swings and blows by his endurance characteristic, and that only one blow or swing may be made per combat round. The number of blows and swings is based on the individual's endurance at the beginning of the combat encounter; wounds suffered during the encounter do not reduce the total possible swings and blows, but wounds suffered prior to the encounter which reduce endurance will reduce the allowance accordingly. The total allowance for swings and blows applies to all such attacks, regardless of whether the character shifts from brawling to blade combat or back. Gun combat is not affected by endurance.

EXPERTISE

A character's expertise or skill in a weapon can affect personal combat in both the attack and the defense.

Attacking: The level of expertise in a specific weapon is used as a positive DM on the basic throw to hit. If the character changes the weapon being used, then the expertise for the new weapon is used in combat.

Parrying: A character may use his expertise level in his brawling or blade weapon as a negative DM when engaged in brawling or blade combat (i.e. when using a brawling or blade weapon against an enemy also using such a weapon). The character is considered to be blocking or parrying his enemy's blow. Obviously, only blows or swings may be blocked, not shots. A long gun such as a rifle or carbine (but not a pistol) may be used to parry; if so, it is treated as a brawling weapon (a cudgel). A weapon may be used both to attack and parry in the same round.

Untrained Weapon Usage: Any character using a weapon in which he or she has no training is subject to a penalty of -5 when attacking and +3 when defending. All player-characters automatically have an expertise of zero (0) in all weapons shown in this book. This zero value is sufficient to avoid the no-expertise penalty, but it is not enough to provide a positive DM. Player-characters selecting their weapons should consider the potential benefits of their strength and dexterity level and any DMs that might be available for those characteristics.

WEIGHT

Characters are restricted in the total weight which they may carry, and may suffer negative DMs if they carry enough weight to become encumbered.

Normal Load: Any character may carry a load equal to his or her strength characteristics, in kilograms. A person with strength 12 could carry 12 kilograms. Weapons and other materials are given weights in grams and kilograms. Load is calculated by totalling the weight of all relevant items. Clothing, personal armor, and minor items such as holsters, scabbards, and belts are not counted. Other items such as tools, communicators, instruments, rations, and calculators are described in Book 3, and their weight constitutes part of the total load. $\times 5$

Double Load: A character may carry up to twice his or her strength in kilograms. Someone with strength 6 could carry 12 kilograms. Encumbered persons are treated as if their strength, dexterity, and endurance are one less than normal. For example, a character with a UPP 788953 carrying 12 kilograms of load would be treated as 677953 until such time as at least 5 kilograms have been shed.

Triple Load: A character who is part of a military force (mercenary unit; combat unit; troop unit) may carry up to triple his or her strength in kilograms, subject to a reduction of 2 in strength, dexterity, and endurance.

Different Gravity: A world of size 8 is assumed to have normal gravity. Subtract the size of the world on which the adventurers are from 8 and multiply the result by 12.5%. This indicates the additional load that the character is capable of carrying, in kilograms.

For example, a world with size 4 ($8-4=4$; $4 \times 12.5\%=50\%$) allows a character to carry an additional 50% load without being considered encumbered. A world with size 10 ($8-10=-2$; $-2 \times 12.5\%=-25\%$) reduces the allowable load by 25%.

World sizes are explained in Book 3. World sizes also assume that the world has normal (earth) density; different densities of worlds are possible through the use of a density constant K (determined by the referee; mentioned in Book 2). When a density constant K is in use, multiply the world size by K to determine the true gravity factor, and use that in determining load sizes.

MORALE

A party of adventurers which sustains casualties in an encounter will ultimately break or rout if it does not achieve victory.

At the point in time when 20% of a party is unconscious or killed, the party must begin making morale throws. For an average party, 7+ is the throw to stand, or not break and run. Valiant parties may have a higher throw. DMs are allowed: +1 if the party is a military unit; +1 if a leader (leader skill) is present; +1 if the leader has any tactical skill; -2 if the leader is killed (for two rounds at least, and until a new leader takes control); -2 if casualties (unconscious and dead) exceed 50%.

COMBAT EQUIPMENT

The weapons and armor used by a character constitute his or her primary means of achieving goals once logic and persuasion have failed. Weapons are also essential for self-defense. These various weapons, weapon accessories, and armor are described below. Weights are given in grams; costs are given in credits (Cr). The technological level at which the weapon is first produced is shown after the abbreviation TL; tech levels are explained in Book 3.

Brawling Weapons: Brawling generally involves found weapons which are already at the site of the battle. Brawling weapons are effective only at close and short range. Such weapons are classified as clubs, cost nothing, and generally weigh from 500 grams to 3 kilograms (one die times 500 grams). Pistols may be used as clubs when brawling. Bottles may be used as clubs (once, then they become dagger minus 1). Animals are equipped with their own weapons, generally specified in the encounter tables of Book 3.

Blade Weapons: The following edged weapons cover the range of blades which are available. Blade weapons are effective only at close and short range.

Dagger (250 grams; Cr10; TL 1): A small knife weapon with a flat, two-edged blade approximately 200mm in length. Daggers are usually carried in a belt sheath, and less frequently are concealed in a boot sheath or strapped to the forearm. Daggers are usually the last weapon of defense, and worn constantly. Each weighs 250 grams; that weight, however, does not count against the weight load of the character as the weapon is worn constantly and comfortably.

Blade (350 grams; Cr50; TL 3): A hybrid knife weapon with a heavy, flat two-edged blade nearly 300mm in length, and a semi-basket handguard. Because of the bulk of the handguard, it is generally carried in a belt scabbard.

Foil (500 grams; Cr100; TL 3): Also known as the rapier, this weapon is a light, sword-like weapon with a pointed, edged blade 800mm in length, and a basket or cup hilt to protect the hand. Foils are worn in scabbards attached to the belt.

Cutlass (1250 grams; Cr100; TL 3): A heavy, flat-bladed, single-edged weapon featuring a full basket hilt to protect the hand. The cutlass is the standard ship-board blade weapon and usually kept in brackets on the bulkhead near important locations; when worn, a belt scabbard is used. Blade length varies from 600 to 900mm.

Sword (1000 grams; Cr150; TL 1): The standard long-edged weapon, featuring a flat, two-edged blade. It may or may not have a basket hilt or hand protector. A scabbard to carry the sword may be attached to the belt, or to straps (or a sash) over the shoulder. Blade length may vary from 700 to 950mm.

Broadsword (2500 grams; Cr300; TL 2): The largest of the sword weapons, also called the two-handed sword because it requires both hands to swing. The blade is extremely heavy, two-edged, and about 1000 to 1200mm in length. The hilt is relatively simple, generally a cross-piece only, with little basketwork or protection. When carried, the broadsword is worn in a metal scabbard attached to the belt; less frequently, the scabbard is worn on the back, and the broadsword is drawn over the shoulder.

Polearms: The following polearms are generally available. In most cases, they will be in the hands of non-player characters encountered in the process of an adventure. They are effective at close and short range.

Bayonet (250 grams; Cr10; TL 3): A knife-like weapon similar to a dagger or

blade. When not attached to a rifle, a bayonet is treated as a dagger (or blade), carried in a belt scabbard, and requires dagger (or blade) skill for use to advantage. When attached to the muzzle of a rifle (only, not carbine or auto rifle), it transforms the gun into a polearm, and increases the length of the arm by 200mm.

Spear (2000 grams; Cr10; TL 0): A long (3000mm) polearm with a pointed tip, usually of metal. Often made by the person who carries the weapon, the spear is quite inexpensive.

Pike (3000 grams; Cr40; TL 1): A long (3000 to 4000mm) polearm with some form of flat blade tip.

Halberd (2500 grams; Cr75; TL 2): a quite elaborate polearm featuring a pointed, bladed tip. This weapon may be considered to be a combination between a battle ax and a spear. Length: 2500mm.

Cudgel (1000 grams; Cr10; TL 0): A basic stick used as a weapon. Easily obtained from standing trees or through the use of an unloaded long gun such as a rifle or carbine (laser weapons are too delicate to be used as cudgels). Length: 1000 to 2000mm.

Guns: The following guns are generally available (but note especially that the law levels given in Book 3 may restrict the possession, use, or importation of some or all of these guns). Pistols are effective at all but the longest ranges; other guns are effective at all ranges.

Body Pistol (300 grams loaded; Cr 520; TL 7): A small, non-metallic semi-automatic pistol designed to evade detection by most weapon detectors. It fires 5 gram projectiles at a velocity of 500 to 600 meters per second. A magazine containing six cartridges is inserted into the pistol handle; one cartridge is fired for each pull of the trigger. Pre-loaded magazines may be inserted into the pistol when it is empty, taking one combat round to do so. Body pistol ammunition is not interchangeable with the ammunition for any other types of guns.

Length: 100mm. Weight, unloaded: 250 grams (a loaded magazine weighs 50 grams). Base price: Cr500 (one loaded magazine: Cr20).

Automatic Pistol (1000 grams loaded; Cr210; TL 5): The basic repeating handgun, firing 9mm caliber bullets (each weighing approximately 10 grams) at velocities from 400 to 500 meters per second. A magazine containing 15 cartridges fits into the handle of the pistol, and one cartridge is fired for each pull of the trigger. Automatic pistol ammunition is interchangeable with submachinegun ammunition (although magazines are not). Preloaded pistol magazines may be inserted into an empty pistol, requiring one combat round for this reloading procedure to occur.

Length: 175mm. Weight, unloaded: 750 grams (loaded magazine weighs 250 grams). Base price: Cr200 (loaded magazine: Cr10).

Revolver (1000 grams loaded; Cr155; TL 4): An older variety of handgun, the revolver fires 9mm bullets with characteristics similar to those fired by the automatic pistol, but not interchangeable with them. No magazine is used: six cartridges are inserted into the revolver individually. Reloading takes two combat rounds, or one combat round if the individual foregoes the benefit of evasion.

Length: 200mm (some versions may be shorter or longer). Weight, unloaded: 900 grams (weight of six cartridges: 100 grams). Base price: Cr150 (six cartridges cost Cr5).

Carbine (3125 grams loaded; Cr210; TL 5): A short type of rifle firing a small caliber round (a 6mm bullet, weighing 5 grams, at a velocity of 900 meters per

second). A magazine containing ten rounds is inserted into the underside of the carbine, ahead of the trigger guard, and one round is fired with each pull of the trigger. Replacement of empty magazines takes one combat round. Carbine ammunition is not interchangeable with any other type of ammunition.

In essence, a carbine is a short rifle, firing a cartridge of smaller, lighter caliber. A sling usually allows the carbine to be carried on the shoulder, out of the way.

Length: 750mm. Weight, unloaded: 3000 grams (loaded magazine weighs 125 grams). Base price: Cr200 (loaded magazine: Cr10).

Rifle (4500 grams loaded; Cr220; TL 5): The standard military arm, firing a 7mm, 10 gram bullet at a velocity of approximately 900 meters per second. Longer and heavier than a carbine, it is also more effective. Standard equipment includes provisions for attaching a bayonet and telescopic sights, and a shoulder sling.

A twenty-round magazine is attached to the front of the trigger guard, and one round is fired with each pull of the trigger. Replacement of the empty magazine takes one combat round. Rifle ammunition may also be used in automatic rifles; rifle and auto rifle magazines are interchangeable, and weigh the same.

Length: 1000mm. Weight, unloaded: 4000 grams (loaded magazine weighs 500 grams). Base price: Cr200 (loaded magazine: Cr20).

Automatic Rifle (5500 grams loaded; Cr1020; TL 6): A highly refined and tuned version of the rifle, capable of full automatic fire as well as semi-automatic shots. Normally, the automatic rifle fires in bursts of four bullets for each pull of the trigger. It may be switched to semi-automatic fire at the end of a combat round, after all firing, in which case it is treated as a rifle until switched back. Ammunition and magazines are identical to those used for the rifle.

The automatic rifle is equipped with a sling (which allows the weapon to be slung from the shoulder while carried in the ready to fire position), a bipod, and a muzzle brake to steady the gun while firing.

Some versions of the automatic rifle are available which use 100 round belts of ammunition (not usable in rifles, however). Such belts cost the equivalent of six loaded magazines and weigh 2500 grams. Reloading with a new belt requires three combat rounds.

Length: 1000mm. Weight, unloaded: 5000 grams (loaded magazine: 500 grams). Base price: Cr1000.

Shotgun (4500 grams loaded; Cr160; TL 5): The basic weapon for maximum shock effect without regard to accuracy. The shotgun has an 18mm diameter barrel and fires shells containing either six 7mm bullets, or one hundred and thirty 3mm pellets. In each case, the projectiles weigh a total of 30 grams. Velocity for the projectiles is about 350 meters per second. A cylindrical magazine containing 10 shells is inserted under the barrel and parallel to it; cartridges are then fed automatically into the shotgun for firing. Reloading consists of replacing the cylindrical magazine and takes two combat rounds. One shot is fired for each pull of the trigger.

Magazines measure approximately 350mm long by 20mm in diameter and are quite clumsy to carry.

Shotguns are equipped with a sling for carrying.

Length: 1000mm. Weight, unloaded: 3750 grams (loaded magazine: 750 grams). Base price: Cr150 (loaded magazine: Cr10).

Submachinegun (3000 grams loaded; Cr520; TL 5): A small automatic weapon

designed to fire pistol ammunition. Magazines holding 30 cartridges are inserted into the weapon forward of the trigger guard or in the pistol grip, depending on the design. The gun fires four rounds per pull of the trigger. Replacement of an empty magazine requires one combat round.

Submachinegun ammunition (but not magazines) is interchangeable with automatic pistol ammunition.

Most submachineguns are equipped with slings to allow ease of carrying.

Laser Carbine (8000 grams, including power pack; Cr3500; TL 8): A lightweight version of the laser rifle, firing high energy bolts using current from a backpack battery/power pack. The laser carbine fires a 2mm beam of energy, aimed by integrated optic sights. The power pack is capable of producing 50 shots before it requires recharging. Recharging requires at least eight hours connected to a high energy source. The laser carbine is connected to the power pack by a heavy duty cable.

Length: 800mm. Weight of carbine: 5000 grams. Weight of power pack: 3000 grams. Base price: Cr2500 (extra power pack: Cr1000). Cost of recharge, at commercial rates: Cr200.

Laser Rifle (10 kilograms, including power pack; Cr 5000; TL 9): The standard high energy weapon, firing high energy bolts in the same manner as the laser carbine. Heavier, the laser rifle is also capable of longer sustained action, and is somewhat sturdier. The power pack can provide 100 shots before recharging. As in the laser carbine, the laser rifle is connected to the power pack by a heavy duty cable. Power packs are not interchangeable between the two weapons, however.

Length: 1000mm. Weight of rifle: 6000 grams. Weight of power pack: 4000 grams. Base price: Cr3500 (extra power packs: Cr1500). Cost of recharge, at commercial rates: Cr300.

Accessories: The following special accessories are generally available for the various weapons.

Telescopic Sights (800 grams; Cr200; TL 6): High-quality telescopic sights for attachment to rifles and carbines, for increasing their accuracy, especially at longer ranges. A rifle equipped with such sights has a DM of +4 to hit at long and very long ranges. Note that this DM is in addition to other allowed and required DMs.

Telescopic sights are delicate, however, and may be jarred out of alignment by any violent action (such as being left untended in a moving truck, a close explosion, or being dropped) on a throw of 7+. When the sights go out of adjustment, the basic throw to hit should not be revealed to the firer, and he or she will always miss.

Electronic Sights (1500 grams; Cr2000; TL 9): Electronic sights with image enhancement and low-light capabilities are available to provide the capability to see and hit in the dark. Electronics are treated like telescopic sights for damage and reliability, and function similarly.

Silencer (600 grams; Cr200; TL 6): Devices are available which will muffle or eliminate the sound of guns firing, but so far they have proven practical only when applied to body pistols, revolvers, and automatic pistols. A silencer attaches to the muzzle of the pistol, increasing its total length, and making it impossible to holster until the silencer is removed. Silencers are not interchangeable; one must be purchased for each specific model of pistol used.

Length: 100 to 300mm. Weight: 500 to 700 grams. Base price: Cr200.

Shoulder Stocks (1000 grams; Cr75; TL 5): It is possible to produce a shoulder stock which may be attached temporarily to a pistol or revolver, resulting in a crude carbine arrangement and some greater accuracy at longer range. The overall length of the pistol is increased by the length of the stock, and the pistol cannot be holstered. Attaching the stock (or detaching it) requires five combat rounds.

Length: 350mm. Weight: 1000 grams. Base price: Cr75.

Folding Stocks (500 grams; Cr100; TL 6): Carbines, rifles, and shotguns can be equipped with folding stocks which make it possible to reduce the overall length of the weapon by 300mm.

Weight: adds 500 grams to the weapon weight. Base price: Cr100.

Armor and Protection: The following items of armor and personal protection are generally available. The weight of personal armor and clothing is assumed to be part of the character's clothing load and is not affected by the weight rule. Only one form of personal armor may be worn, except that reflec may always be worn under other clothing or armor.

Jack (Cr50; TL 1): A natural or synthetic leather jacket or body suit covering the torso and upper arms and legs. Jack is somewhat better than ordinary clothing or bare skin when defending against blades; it is worthless against guns.

Mesh (Cr150; TL 7): A jacket or body suit made of natural or synthetic leather and reinforced with a lining of flexible metal mesh, similar to chain mail but lighter and stronger. Mesh reduces or stops penetration by blades and has some effectiveness against guns; it is ineffective against laser fire.

Cloth (Cr250; TL 6): A heavy duty body suit tailored from ballistic cloth. The fabric absorbs impact energy, distributing the blow over the body of the target and possibly resulting in bruising. Nevertheless, cloth armor is almost the best and the most versatile available.

Reflec (Cr1500; TL 10): Reflective material on a plastic base can be tailored into a body suit which is ineffective against most weapons, but superior in defense against laser fire. Unlike other forms of armor, reflec is worn under other clothing. Reflec is expensive and often difficult to obtain.

Ablat (Cr75; TL 9): Ablat is a cheap alternative to reflec, and is fashioned from a material which will ablate (vaporize) when hit by laser fire. The ablation of the material carries away the energy of the laser, and protects the wearer. Continued fire against ablat degrades its effectiveness, but the armor is cheap and easily replaceable. Ablat also has some value against other forms of attack.

Vacc Suit (Cr10,000; TL 8): The personal vacuum or space suit is designed to protect the individual from vacuum, tainted or noxious atmospheres, and some radiation situations. It carries its own communicators, oxygen tanks for six hours, and other basic survival appurtenances. Use of a vacc suit requires vacc suit-0 or better. It acts as cloth armor when subject to attacks. Vacc suits are relatively bulky, and weigh 10 kilograms; the weight counts against personal weight allowances. This weight is reduced 2 kilograms per tech level as the suit gains increasing sophistication. For example, a TL 10 vacc suit weighs 6 kilograms, and a vacc suit at tech level 13+ adds no apparent weight.

Combat Armor (Cr20000; TL 11): Combat armor is a complete vacc-suit-like array of metal and synthetic armor. Combat armor is strictly military and not available on the open market; it is issued to troop units and elite mercenary battalions. Before combat armor can be worn, the user must have vacc suit skill-1 or

better.

Battle Dress (Cr200,000; TL 13): The ultimate in individual protection, battle dress is an advanced and powered version of combat armor. Battle dress enhances the strength and senses of individuals wearing it with variable feedback personal controls, servopowered limbs, and various kinds of electronic assistance. The individual wearing battle dress is effectively doubled in strength and given unlimited endurance (for lifting, carrying, and fighting purposes; not for wounds received) and receives a DM of +2 for surprise.

SPECIAL CONSIDERATIONS

The following are important to the implementation of weapons use.

Drawing: Weapons are usually carried holstered or slung, unless the characters specifically state the contrary. A character attempting to use a holstered or slung weapon in a combat round is subject to a DM of -3 when drawing. When two or more people draw against each other (assuming surprise is not a factor), each rolls two dice and adds his or her dexterity; the character with the highest modified throw thus achieves surprise for the purpose of a first shot.

Minor Accessories: Holsters, magazine carriers, belts, scabbards, cleaning kits, and other accessories are available for 10% to 20% of the base price of the weapon. They have effectively no weight (being included in the personal clothing group). Shoulder holsters may be worn to conceal pistols in public; otherwise, pistols are carried in hip holsters.

Throwing Blades: Daggers, blades, and bayonets may be thrown at a target at short range. Throw 18+ to hit; DM +dexterity, +blade skill, -target evasion DM if evading. If a hit is achieved, the wound is 2D. Retrieval of the thrown blade requires one combat round at close range with the target.

Full Automatic Fire: Submachineguns and automatic rifles fire four round bursts instead of single shots. The higher ammunition usage results in the hit probabilities shown on the table (auto rifle uses the rifle row on the table when firing single shots). In addition, automatic fire allows rolling to hit twice against the same target. Finally, the group hit rule applies against companions of the target.

Group Hits By Automatic Fire: Regardless of the designated target for automatic fire, non-evading individuals adjacent to the target are also attacked by the burst of automatic fire. No more than two adjacent targets may be attacked, but each is the subject of a to hit roll with a DM of -3, and all other appropriate DMs.

Group Hits By Shotguns: Each shot by a shotgun may attack up to three individuals adjacent to the original target, provided they are in a group (herd, pack, band, etc) and are each human-sized or smaller. In addition, when firing against flying targets (winged animals, flying vehicles) within range, a DM of +2 is allowed.

Coup De Grace: Any gun or blade may be used to administer a coup de grace and kill an unconscious or unstruggling individual (person or animal) at close range in one combat round if the character using the weapon so states. Ammunition is expended, but no die rolls are necessary. A coup de grace may be administered with hands or brawling weapons using special blows, but die rolls must be made.

Archaic Firearms: The guns shown previously are those available in interstellar societies and which travellers 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.

ANTIQUE EQUIVALENTS

Most of the gun weapons described above are based on weapons available in the 1980s. While technology will certainly progress in the centuries that come, it will also remain a fact that one of the surest ways to injure or kill an adversary is to subject him or her to a large dose of kinetic energy; the simplest way to deliver that energy to someone is with bullet impact. The guns noted below are used as the basis for the weapons described, although some changes have been made in weight and power. Individuals interested in more information on the capabilities and parameters of the weapons can use this information as a springboard.

Body Pistol: Equivalent to the Walther PPK .380 or the OMC .380 Back-up.

Automatic Pistol: Equivalent to the Smith & Wesson Model 59 9mm or the Auto-Mag .44 Magnum.

Revolver: Equivalent to the Smith & Wesson Model 66 .357 Magnum.

Carbine: Equivalent to the Ruger 5.56mm Mini-14 or the Armalite 5.56mm Ar-180.

Rifle: Equivalent to the Springfield 7.62mm M14 Rifle or the Belgian FN FAL 7.62mm Rifle.

Automatic Rifle: Equivalent to the full automatic versions of the rifles mentioned above. The belt-fed automatic rifle is equivalent to the Russian DShK in rifle caliber.

Shotgun: Equivalent to the Remington M1100.

Submachinegun: Equivalent to the British Sterling 9mm L2A1, or the Israeli 9mm UZI.

Some weapons such as the laser rifle and laser carbine are not currently available. Referees may feel free to create other weapons to suit the needs and desires of their own campaigns.

WEAPONS AND EQUIPMENT

Item	Base Weight	Ammo Weight	Rds/Clip	Length Overall	Base Price	Ammo Price
Dagger	(250)	—	—	200	10	—
Blade	350	—	—	300	50	—
Foil	500	—	—	800	100	—
Cutlass	1250	—	—	800	100	—
Sword	1000	—	—	800	150	—
Broadsword	2500	—	—	1200	300	—
Bayonet	250	—	(+) 200	10	—	—
Spear	2000	—	—	3000	10	—
Halberd	2500	—	—	2500	75	—
Pike	3000	—	—	4000	40	—
Cudgel	1000	—	—	1500	10	—
Body Pistol	250	50	6	100	500	20
Automatic Pistol	750	250	15	175	200	10
Revolver	900	100	6	200	150	5
Carbine	3000	125	10	750	200	10
Rifle	4000	500	20	1000	200	20
Automatic Rifle	5000	500	20	1000	1000	20
Shotgun	3750	750	10	1000	150	10
Submachinegun	2500	500	30	450	500	20
Laser Carbine	5000	—	—	800	2500	—
LC Power Pack	3000	—	50	—	1000	200
Laser Rifle	6000	—	—	1000	3500	—
LR Power Pack	4000	—	100	—	1500	300
Telescopic Sights	800	—	—	—	200	—
Electronic Sights	1500	—	—	—	2000	—
Silencer	600	—	—	(+) 200	200	—
Shoulder Stock	1000	—	—	(+) 350	75	—
Folding Stock	500	—	—	(-) 300	100	—
NUNCHAKU	1500	—	—	650	100	—

BODY ARMOR

Type	Description	Price
Jack	Leather or synthetic jacket/body suit	50
Mesh	Leather or synthetic, reinforced metal mesh jacket	150
Cloth	Ballistic cloth (bullet proof) jacket	250
Reflec	Reflective body suit, usually worn underneath	1500
Ablat	Ablative (vaporizing anti-laser) jacket	75
Vacc Suit	Vacuum protective suit and helmet	10000
Combat Armor	Personal protective armor	20000
Battle Dress	Powered personal protective armor	200000

WEAPONS TABLE

Attacker's Weapon	Required Strength Level	Required Strength DM	Advantageous Strength Level	Advantageous Strength DM	Weakened Blow or Swing DM
Hands	6	-2	9	+1	-2
Claws	—	—	—	—	—
Teeth	—	—	—	—	—
Horns	—	—	—	—	—
Hooves	—	—	—	—	—
Stinger	—	—	—	—	—
Thrasher	—	—	—	—	—
Club	5	-4	8	+2	-1
NUNCHAKU	5	-4	—	—	-1
Dagger	4	-2	8	+2	-2
Blade	5	-2	9	+1	-2
Foil	5	-1	10	+1	-2
Cutlass	7	-2	11	+2	-4
Sword	6	-2	10	+1	-3
Broadsword	8	-4	12	+2	-4
Bayonet	5	-2	9	+2	-2
Spear	5	-1	9	+2	-3
Halberd	6	-2	10	+2	-3
Pike	7	-3	10	+2	-3
Cudgel	5	-1	8	+2	-1

	Required Dexterity Level	Required Dexterity DM	Advantageous Dexterity Level	Advantageous Dexterity DM
Body Pistol	8	-3	11	+1
Automatic Pistol	7	-2	10	+1
Revolver	7	-2	9	+1
Carbine	5	-1	9	+1
Rifle	6	-2	8	+1
Automatic Rifle	7	-2	10	+2
Shotgun	4	-1	9	+1
Submachinegun	6	-2	9	+2
NUNCHAKU	10	-3	11	+1
Laser Carbine	6	-3	10	+2
Laser Rifle	7	-3	11	+2

WEAPONS MATRIX

Attacker's Weapon	Defender's Armor						
	Nothing	Jack	Mesh	Cloth	Reflec	Ablat	Cbt Armor
Hands	+1	-1	-4	-4	0	-1	-6
Claws	+3	0	0	+1	-1	-3	-7
Teeth	+2	+1	-1	0	-2	-4	-7
Horns	+2	+1	0	-1	+2	-2	-5
Hooves	+3	+3	+2	+2	+3	+2	-6
Stinger	+4	+3	0	+1	+2	0	-6
Thrasher	+7	+7	+4	+4	+7	+4	0
Club	0	0	-2	-3	0	-2	-7
NUNCHAKU	+2	+2	-1	-2	+2	+1	-5
Dagger	0	-1	-4	-4	0	-2	-5
Blade	+1	0	-4	-4	+1	-3	-5
Foil	+2	0	-4	-3	+2	-2	-8
Cutlass	+4	+3	-2	-3	+4	-2	-6
Sword	+3	+3	-3	-3	+3	-2	-6
Broadsword	+5	+5	+1	0	+5	+1	-4
Bayonet	+2	+1	0	-1	+2	-2	-6
Spear	+1	0	-2	-2	-1	-3	-6
Halberd	+4	+3	-2	-3	+4	-2	-5
Pike	+1	0	-2	-2	-1	-3	-6
Cudgel	0	0	-2	-3	0	-2	-7
Body Pistol	0	0	-2	-4	-4	-2	-7
Automatic Pistol	+1	+1	-1	-3	+1	-1	-5
Revolver	+1	+1	-1	-3	+1	-1	-5
Carbine	+2	+2	0	-3	+2	+1	-5
Rifle	+3	+3	0	-2	+3	+1	-4
Automatic Rifle	+6	+6	+2	-1	+6	+3	-3
Shotgun	+5	+5	-1	-3	+5	+2	-5
Submachinegun	+5	+5	0	-3	+5	+2	-4
Laser Carbine	+2	+2	+1	+1	-8	-7	-6
Laser Rifle	+3	+3	+2	+2	-8	-7	-6

The weapons matrix indicates the die modification based on the armor type of the target for each specific weapon. Note the DM based on armor and weapon type.

The range matrix indicates the die modification based on the range to the target for each specific weapon. Note the DM based on range and weapon type.

Distance in :-

RANGE MATRIX

Attacker's Weapon	Range					Wound Inflicted
	Feet > 3' Meters > 1	3'-16' 1-5	20'-165' 6-50	168'-825' 51-250	828'-1650' 251-500	
Hands	+2	+1	no	no	no	1D 1/2 Str, round up.
Claws	+1	+2	no	no	no	1D
Teeth	+2	0	no	no	no	2D
Horns	-1	+1	no	no	no	2D
Hooves	-1	+2	no	no	no	2D
Stinger	+4	+2	no	no	no	3D
Thrasher	+5	+1	no	no	no	2D
Club	+1	+2	no	no	no	2D
NUNCHAKU	+1	+2	-	-	-	2D+2
Dagger	+1	-1	no	no	no	2D
Blade	+1	+1	no	no	no	2D
Foil	-1	0	no	no	no	1D+1
Cutlass	-4	+2	no	no	no	2D+2
Sword	-2	+1	no	no	no	2D+2
Broadsword	-8	+3	no	no	no	4D
Bayonet	-1	+2	no	no	no	3D
Spear	-2	+1	no	no	no	2D
Halberd	0	+1	no	no	no	3D
Pike	-4	+4	no	no	no	3D
Cudgel	0	0	no	no	no	2D
Body Pistol	+2	+1	-6	no	no	3D
Automatic Pistol	+1	+2	-4	-6	no	3D
Revolver	+1	+2	-3	-5	no	3D
Carbine	-4	+1	-2	-4	-5	3D
Rifle	-4	+1	0	-1	-3	3D
Automatic Rifle	-8	0	+2	+1	-2	3D+2
Shotgun	-8	+1	+3	-6	no	4D
Submachinegun	-4	+3	+3	-6	-9	3D
Laser Carbine	-2	+1	+1	+1	0	4D
Laser Rifle	-4	+2	+2	+2	+1	5D
Telescopic Sights	-	-	-	+4	+4	-
Electronic Sights	-	-	-	+4	+4	-
Shoulder Stock	-1	-1	+1	+1	-	-
Folding Stock	-	-	-1	-1	-1	-

COMBAT PROCEDURE

1. Determine if either party has the element of surprise.
2. Determine the initial range which separates the parties.
3. Determine if escape or avoidance for either party is possible or warranted.
4. Resolve actual combat using a series of combat throws.

A. Each character indicates his or her movement status.

B. Each character indicates his or her attack and target.

TERRAIN DMs

Clear, Road, Open	+3
Prairie, Plain, Steppes	+3
Rough, Hills, Foothills	+2
Broken, Highlands	+2
Mountain, Alpine	+3
Forest, Woods	+1
Jungle, Rainforest	—
River, Stream, Creek	+1
Swamp, Bog, Marsh	-4
Desert, Dune, Sand Sea	+4
Maritime Surface	+2
Maritime Subsurface	-1
Arctic	+2
City	-4
Building Interior, Cave	-5

ENCOUNTER RANGES

Dice	Range
1	Short
2	Close
3	Short
4	Medium
5	Short
6	Medium
7	Medium
8	Long
9	Medium
10	Very Long
11	Long
12	Very Long
13	Very Long

Roll on this table for the range of an encounter; DMs from terrain DM table.

SURPRISE DMs

Leader skill	+1
Tactical skill	+1
Military experience	+1
In a vehicle	-1
8 or more adventurers	-1
10 or more animals	-1
Pouncer animals	+1

RANGES

Close: in physical contact; touching.
 Short: at sword or polearm point; approximately 1 to 5 meters.
 Medium: at pistol range; from 6 to 50 meters.
 Long: at rifle range; from 51 to 250 meters.
 Very Long: at extreme range; from 251 to 500 meters.

WEIGHT LIMITATIONS

Normal Load: May not exceed personal strength in kilograms.

Double Load: Encumbered, but may carry twice personal strength in kilograms. Strength, dexterity, and endurance reduced by -1 each.

Triple Load: Encumbered, but may carry triple personal strength in kilograms. Strength, dexterity, and endurance are each reduced by -2. Individual must be a member of a military unit to carry triple load.

GRAVITATIONAL EFFECTS

World	Normal	Double	Triple
0	200.0%	400.0%	600.0%
1	187.5%	375.0%	562.5%
2	175.0%	350.0%	525.0%
3	162.5%	325.0%	487.5%
4	150.0%	300.0%	450.0%
5	137.5%	275.0%	412.5%
6	125.0%	250.0%	375.0%
7	112.5%	225.0%	337.5%
8	100.0%	200.0%	300.0%
9	87.5%	175.0%	262.5%
A	75.0%	150.0%	225.0%