THOUGHTS & IMAGES

ALBEDO
THE ROLE-PLAYING GAME

GAME RULES FOR ROLE-PLAYING IN THE
SCENARIOS BASED ON ERMA FELNA, EDF
FROM THE COMIC ALBEDO,
ANTHROPOMORPHICS

SET INCLUDES THREE RULE BOOKS AND SAMPLE PLAY
SITUATION, RECOMMENDED FOR ADULTS AND MORE
LITERATE TEENAGERS.
A casual, but important, introduction from the guy who started it all.

For the uninitiated, ALBEDO the RPG is based on Erma Felna, EDF, the feature story in the comic book ALBEDO, ANTHROPOMORPHICS. The story of Erma is a rather matter-of-fact military/science-fiction story, following her career in an interstellar society in trouble. An extra twist is that she is an anthropomorphic character, a cat in human-like form. She, and the rest of the cast, are all genetic constructs, created and presumed abandoned by humans, centuries before, and have established their own unique culture. I've been writing it since '84 with some small success, building an ever-growing following of fans and more important to the game, developing the infrastructure behind the story.

The game has been written by Paul Kidd, a rabid fan and gamer in Australia. We'd been in correspondence for the better part of a year while he wrote it, helping to subsidize both the overseas post and satellite phone network in the process. He'd ask me all manner of pointed questions on details relating to the scenario, and I'd have to consolidate all the half-formed bits and start worrying about continuity and all that sort of orderly thing. Between such and what he was able to glean from the published stories, he came up with the particulars of the game.

Now we come to the important part of the introduction.

For anyone new to gaming, don't let all the minutiae in the rules intimidate you. When Paul wrote the game, he included all the nit-picking bits to cover the demands of those players who need that kind of detail to settle arguments of, say, exactly how many kilos of equipment makes a character "officially" encumbered. With practice and experience, and a little common sense, all you'll need is some of the more general charts and stuff. On the other hand, for those new to the story, things are a bit more difficult. The scenario is not just people in furry suits, and the western U.S. with hi-tech window dressing, and neither the current game nor the original Erma stories make that fully clear. That is due to my still learning how to write. You know, getting character development, plotting, atmosphere, complex yet subtle social details, all that kind of stuff. And when Paul wrote the game, he made the mistake of often quoting me too literally. So, a lot of the stuff, in hindsight, I would have written not too differently, only rephrased.

However, that doesn't make the game unplayable, and if you read the stories you can, at least I hope, get some ideas for creating your own adventures. In the end, I'd like to think that will be the aspect of the game that will turn you on the most. Getting creative, using this as a basis for you to be a part of the Erma universe, or adapt it to prior games or stories, is all fine by me. There will, undoubtedly, be more components to the game, more background, expanded rules to cover more areas of action, and sample scenarios to play or adapt. And, I'll still be writing the story of Erma, Toki and all the rest. Hope you like 'em.

—Steve Gallacci

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What? Are you sure, Instructor Zani?

Don't worry. We're just going to high-light you in these run-throughs.

The "how-not-tos"?

Come on now, we've got confidence in you.

Gosh, I've never been in a R.P.G. before.

I was hoping to pose for a model sheet.

Just hope they don't do something really awful.

Ho! Aitzott! You've been tapped to lead-off this time.
FOREWORD:
For those of you who are new to the concept, a role-playing game may be quite difficult to catch on to at first. Role-playing games have no winners or losers, being played simply for the enjoyment of the exercise. A game will involve one or more players, each of whom creates an imaginary "character" which acts as a kind of alter ego, and whose adventures and misadventures will be guided by the will of its controlling player.

The game is presided over by an umpire (also called the referee). The umpire acts as a storyteller, presenting the players with problems and information, and adjudicating the results of the player characters’ actions. A role playing game thus becomes an ongoing story in which both the players and the umpire participate, the umpire creating the general framework and the player characters creating the action.

These rules are intended as a framework which will allow the umpire and players to simulate the adventures of their characters and the workings of the game environment. They are not intended to cover every possible eventuality. Umpires should feel free to improvise or adapt the rules to meet their particular needs.

INTRODUCTION.
Despite any humorous preconceptions that you might have about "cute furry animals", ALBEDO is essentially a straight laced game. Based on the dramatic and entertaining "Erma Felina" and "Birthright" comic strips by Steven A. Gallacci, the game is designed to allow players to adventure within the universe proposed by the "Erma Felina" scenario. As such, ALBEDO is entirely devoid of plasma zap guns and combat chain saws. It rather projects an alternative society which uses "sensible" technologies and social mechanics. The unique environment of ALBEDO governs the entire character of the game, and is described in detail in the game rules.

ALBEDO uses anthropomorphised animals as its stock inhabitants. In simpler terms, the science fiction environment of ALBEDO is inhabited by intelligent creatures descended from gene modified terrestrial animals. These creatures (termed characters or "critters" for simplicity's sake) have humanoid characteristics. They walk erect, use tools and reason very much like a human being. Critters come in a number of different species, which makes their society quite colourful and intriguing. There is a great variety within many species. Elements such as head hair and fur colour can vary widely from creature to creature, adding still more variety to the types of character available to the players.

In the great tradition of Aesop and George Orwell, animals in serious stories can be used as a means of showing more about ourselves. Animal characters can be very much more than "just funny animals". In a role playing game, animal characters can be much more fun to play, since they divorce the player from human roles which he would otherwise automatically play. We have found it very easy for players to identify themselves with animal characters, with the added bonus that you feel like you are something more than just a run-of-the-mill human. Steve’s stories treat his anthropomorphic characters as alien sentients rather than humans or animals.

ALBEDO endeavors to create a gaming environment which does not need great populations of gun toting opponents to make an entertaining days play. The best games make the players think hard, and occasionally breathe a sigh of relief. Solving a problem or making a successful rescue can be at least as exciting as sending imaginary opponents off to meet their noble ancestors.

Most importantly, these rules seek to provide a means of simulating inter-personal relations. While gunplay seems to form a major part of most role-playing systems, the astute will realise that having fun while playing a game does not mean rampaging about like a homicidal maniac. The best games are composed of interesting problems to solve, people to deal with and goals to achieve. A fight to the death is an awesome and terrifying experience. Treat it as such, and perhaps all of your games will be just that bit more enjoyable.
IT IS ESSENTIAL FOR ALL UMPIRES AND PLAYERS TO BE FAMILIAR WITH THE GAME’S BACKGROUND MATERIAL. PLAYERS SHOULD READ THE BACKGROUND HISTORY, LIFESTYLES, AND TECHNOLOGY SECTIONS OF BOOK 1 BEFORE ROLLING CHARACTERS OR COMMENCING PLAY.

ABBREVIATIONS & CONVENTIONS.

Dice: Whenever dice are rolled, the player will be told the type of dice required for the roll in an abbreviated form. The first number in the abbreviated term is the number of dice to be rolled. The next term specifies the type of dice to be used for the dice roll in the form of a capital "D" followed by the number of sides the required type of dice possesses. Thus 2D6 is the shorthand term for 2 six sided dice. Most of the game operates through that familiar old workhorse, the six sided dice, which is the easiest and quickest of all dice to use. A six sided dice can be used to generate numbers between 1 and 2 (a roll of 1, 2 or 3 yields a result of 1, and a roll of 4, 5 or 6 yields a result of 2). A six sided dice is also used to generate numbers between 1 and 3 (ie as a D3). Simply halve the value rolled on the six sided dice, remembering to round fractions up to the next whole number.

Also added to the various abbreviations are the terms "+" and "-" added after giving a required dice score for an event. A minus sign indicates that the player must roll the number shown or less on the dice in order for the specified event to come about. A plus sign indicates that the player is required to roll the number shown or higher for the results to occur.

Thus, if the text were to ask a player to roll 2D6, with an event occurring on a 9+, then the player will roll two six sided dice, with a resulting score of 9 or less causing the stated effect.

When required to roll two different rolls on two different types of dice, it is advisable to roll all these dice at once. Thus, when rolling to hit a target on the obligatory 2D6, the player might as well roll the dice which will determine the location of the hit at the same time. This tends to speed up play by reducing the number of times dice must be picked up, shaken and rolled.

Dice roll modifiers: When a number is to be added to or subtracted from a dice roll, it is referred to as a dice roll modifier (DRM). Thus a -1 DRM means that the players will subtract one from the score of their dice roll result.

Fractional values: At various points during play, players may find themselves required to halve certain values. Fractions are always rounded to the nearest whole number (.5 rounds up).

The comparison chart: Readers will find that the rules often refer to a test of some characteristic or skill vs another value. The rules are here referring to a "characteristic test" rolled on the comparison chart, which may be found amongst the game charts at the rear of the rules. For details on how to make a characteristic test, see the end of the rules on characteristics determination.

Please note that when you are asked to compare one value with a second value, the second value will be subtracted from the first to yield the number which will be used to determine which column the player is to roll on.

When rolling on the comparison chart, the dice are always rolled by the player who has initiated the test.

Thus, if a character challenges another character to an arm wrestling match, the challenger will roll the dice.

BACKGROUND HISTORY

The society of ALBEDO is a young culture. History effectively began some 200 years ago on the planet of Arras Chanka with what could be best described as an awakening. Over a period of several years, individuals began to realise that they had no adequate explanations to account for the creation of their sophisticated technic civilisation. The question brought about a period of intense investigation which eventually established that there was not only no archaeological evidence of a prehistory on the planet, but also that there was no significant genetic relationship between the 163 intelligent races that made up the population of the planet's biosphere. The conclusion was that the inhabitants of the planet Arras Chanka were the result of some manner of creation/colonisation effort by some unknown agency, carried out at some indeterminate time in the near past. This theory has yet to be confirmed or denied.
The thought of an extra-planetary (or more likely an extra-stellar) origin of civilisation prompted the development of space flight technologies. The creation of an efficient fusion propulsion system, coupled with the later development of jump drive technology lead to a great outward drive of exploration and colonisation, which established outposts in the 50 light year diameter sphere of space surrounding the old home world. This first wave of colonisation was a carefully organised and systematic affair involving fifteen planets over a fifty year period. The dedication and professionalism of these early colonists have now become a part of these planet's distinct cultures. 12 of these colonies survived and prospered, to become the charter members of the ConFederation in the current age.

The next wave of colonisation encompassed more than fifty viable planets over an area some 100 light years in radius. The second colonisation effort was more casual in its approach, and the colonial populations often established more radical socio-economic environments. As the decades passed, these planets established themselves as independent worlds in their own right, and began to colonise other worlds in the 200 lightyears radius zone of surveyed space (the tertiary colonies and "rim-worlds").

Two of the established secondary colonies, Hlahhoch and Balianian had populations mostly composed of rabbits. These worlds decided that the continued expansion of their particular societies would be best furthered by the take over of the built up infrastructures of their neighbors rather than the development of new worlds from scratch. So began a messy and protracted war between the so called Independent Lapine Republic and a hastily formed confederation made up from just about everybody else. The huge potential production capacity of the Confederation was slow to show results against the massive Republican forces which had been so carefully built up over the proceeding years. As the war dragged on, campaigns began characterised by brutal, bloody encounters, atrocities and acts of insane bravery (or foolishness) from both sides. The Republic's expansion was bloodily halted after it managed to assimilate a number of systems, some of which were later released as part of the peace agreements.

As it now stands, the ConFed is formed from the 12 original colony worlds with a number of allied secondary colonies. The I.L.R. consists of a tight ball of space some 20 light years in diameter which contains the two original Lapine worlds coupled with their earliest conquests. A looser scattering of republican dependents and allies surrounds the inner sphere of I.L.R. claimed space. For eighteen years an uneasy cold war dragged on, with the ConFed formalising and re-organising its military forces against the chance of renewed hostilities. For eighteen years the uneasy peace was held.

Now the peace has been broken. The I.L.R. has begun military adventurism which has prompted a rapid response from the ConFed war machine. A small I.L.R. expeditionary force infiltrated and seized the colony world of Derzon, an action which prompted immediate retaliation from the local E.D.F. response force. In a textbook assault on the planet Derzon and its main city of Andis, a ConFed force of 8000 troops succeeded in destroying over 800 I.L.R. soldiers - at a cost of 5000 civilian lives and incalculable loss of property.
E.D.F. intelligence has now determined that the I.L.R. forces were deliberately dispersed amongst the local population centers in an attempt to maximise the civilian casualties/collateral damage caused by the E.D.F. counterstrike. This revelation has had little effect on the popular media, however, which has launched a campaign questioning the intractable E.D.F. doctrine of securing the outworld territories. A period of skirmishes and terrorist acts has begun. While no formal war has been declared, the Confederation is now on a war footing, and awaits the next move in the struggle. A number of unscrupulous third parties and individuals are exploiting the confused, hostile political environment, easily masking their activities as the work of the ConFed or I.L.R. governments.

**POLITICAL STRUCTURE:**

Known space is an irregular sphere which is about 200 light years in radius. Most of this area is occupied by the ConFed, except for a smaller sphere of I.L.R. territory. The periphery of known space is referred to as "the rim", and contains a number of independent, unaligned worlds.

ConFedspace surrounds and restricts the Republic. Should the I.L.R. decide to expand, its only path is to assimilate ConFed systems.

**ConFed - The Interstellar Confederacy.**

The ConFed is composed of a number of member worlds, each of which is highly independent and which maintain their own military and governmental structures. The ConFed charter states that the rights of individual planets are inviolable providing member worlds do not seek to impose their own socio-political structures upon other worlds.

The ConFed government (ConFed Central) is formed by representatives from each member world, one representative being allowed to each world for every 10 million head of population resident on the planet.

The ConFed is thus the glue which binds together a group of worlds which would otherwise be isolated and independent.

The ConFed is therefore a fairly loose society. Individual governments must contribute resources and personnel to ConFed projects, but the worlds maintain their ability to enter independent ventures. The ConFed government has thus far shown itself to be canny, and as benevolent as any government can realistically hope to be.

**The E.D.F.:** The military elite of the ConFed is the Extra-Planetary Defense Force. The E.D.F. is recruited from the Homeguards of all member states.

The E.D.F. was formed as a collected fighting force, initially to counter aggression from the I.L.R., and later to prevent internal conflicts from escalation to interplanetary or interstellar scale. Because of the great distances often involved, and the subsequent delays in communications with higher authority, E.D.F. officers are selected and trained for the greatest reliability and initiative in on-the-spot situations. These elite individuals are not so much gung-ho super soldiers as they are dedicated warrior/intellectuals, equally able to maintain the peace through enlightened arbitration or force of arms.

The E.D.F. combines ground and spatial forces which far exceed the strength of any group of individual ConFed member worlds, and includes the full compliment of the ConFed's interstellar warships. In wartime, E.D.F. forces, supported by combat support complexes (huge space-borne manufacturing stations) would co-operate closely with local Homeguard units, which often have the heavy vehicles and equipment that the highly mobile E.D.F. forces lack. ConFed member worlds support military efforts with "on hand" production capability, allowing equipment losses to be replaced and special tools to be constructed as a campaign wears on.

The **Homeguard:** "Homeguard" military forces are created and maintained by each planet for its individual defense and internal security. Members of a planetary Homeguard owe allegiance to the ConFed, but are recruited only from the member world's population. They are thus often more deeply allied to their home world government and population than to the ConFed itself. Enlistment in the homeguard is often a mandatory pre-requisite for citizenship (alternative civil service is usually available in such cases), unlike the E.D.F., which is voluntary and extremely selective in its recruiting. With a more limited mission and immediate on-hand command control, Homeguard personnel are more like conventional armed service or militia in levels of discipline and training. Since Homeguard are expected to supplement the E.D.F. in combat, they receive co-operative training.

Due to local requirements and variable resources, homeguard arms and equipment tend to be more specialised than that used by the E.D.F., and reflect
varying planetary tactical policies. Homeguards often use a variety of man portable systems such as anti-armour and anti-aircraft missiles to partially compensate for their shortcomings in the realms of space-based and aerial fire support which would normally deal with these threats.

The Republic (Independent Lapine Republic).
The I.L.R. in its domestic policy is not so different from other second generation worlds. A sense of post-colonial independence has allowed the private sector to develop into providing most goods and services, and has largely kept government control out of the day to day lives of full citizens. In the realm of foreign affairs, the government's desire to maintain an artificially high standard of living coupled with a touch of xenophobia, has allowed it to rationalise a policy of external aggression.

On the two original Republican planets and any conquered worlds, non rabbits form a category of second class citizens, and are subordinate to their lapine rulers. While this is not much of a problem on Hiahhohoch and Balannian, which had a minority of non rabbits to begin with, on conquered worlds the Republican governmental system is harsh and repressive. Local rabbits were sought out immediately after conquest, and those who would not co-operate with the invaders were executed as traitors to the species. With the aid of local rabbits, effective population controls were established. Rabbits became superior citizens, and hold all positions of any real importance, thus locking the planet under the iron rule of the Republic. Republican ally worlds are not in any way beholden to the I.L.R.'s peculiar "master race" theories, but are all enamored of strong and aggressive government.

The I.L.R. military fight a hard and often dirty war. While not fanatics, I.L.R. troops are highly motivated, and by and large lack any sympathy for their opponents. Acting entirely without malice, they will readily perform the most shocking atrocities, but only after coolly calculating their long range results and far reaching impacts. Republican troops will fight with great ferocity, but will surrender when it becomes clear that they can no longer cause damage to their opponents.

The I.L.R. is currently engaged in a carefully designed and executed plan to weaken the ConFed by causing internal dissent. The core of this plan revolves around reducing local support for the ConFed central government on the outworlds, thus opening the possibility of governments which are hostile to the ConFed (and thus sympathetic to the I.L.R.) coming to power. The I.L.R. has begun a series of actions designed to discredit the E.D.F. in the eyes of the outworld populations.

MILITARY FORCE:
Warfare in ALBEDO is somewhat different to that "enjoyed" by 20th century earth. The use of space craft and orbital weapons systems adds whole new elements to ground warfare. The armies of ALBEDO are still learning their trade, but their high initiative and inventiveness as demonstrated by the high intelligence and adaptability of the common soldier has allowed them to swiftly develop into formidable fighters.

E.D.F. Battle doctrine.
Engaging Planetary Forces.
In a textbook engagement, E.D.F. starships will jump into the target system at the appropriate angle for an approach to the objective. Forces will disperse into a
defensive globe and begin variable deceleration while undecelerated A.C.V's (autonomous combat vehicles) sweep by the target world to assess the enemy forces. Many of these probes subsequently impact the enemy ground defenses at enormous velocity, their kinetic energy making warheads superfluous.

If the enemy forces exceed the attacking task force's resources, the attackers will manoeuvre away from the engagement and jump out of system as appropriate.

If the enemy can be subdued within the task force's reserve margin, then the engagement will proceed. New waves of ACV's (autonomous combat vehicles - robot drones) are dispatched, arriving well ahead of the main fleet to engage all eligible targets on and off the planet's surface. Only when local space is pacified, and the chance of out system reinforcements unlikely can a landing of ground forces be made.

Once space weapons systems have reduced the enemy's surface defenses, gunships and assault craft will converge on their objectives. Gunships will suppress the defence while assault craft unload the attacking ground forces, and air vehicles will provide continuous close support from above during the surface engagement. Ground troops rely heavily upon aerial weapons for "artillery" support, and must cooperate closely with vehicle borne weapon systems if they hope to cope with enemy armour, which is now proofed against most infantry portable weapons.

The starships in orbit will continually monitor and co-ordinate the ground battle. Ideally a task force will be based around a Command Support Vessel (VLCSV), a combination carrier, command and control center with the production capability to support any foreseeable trends in the ground action. In a protracted conflict, "on hand" production capability will prove vital to the attacking elements.

System Defense.
At the first detection of hostile forces, intercepting ACV's will be deployed. As the force and intent of the hostlies is confirmed, offensive/defensive resources are evacuated or dispersed as the situation allows. Most elements will be kept well dispersed to prevent the detection and destruction of any one element from jeopardising its neighbors.

Personal Conduct Doctrine.
The E.D.F. devotes much time and effort to training its troops out of any tendencies to be trigger happy, thoughtless or easily rattled by stress and pressure. While training in "coolness under fire" skill simulates this to a great degree, players should remember that the E.D.F. requires its members to behave in a responsible, rational manner, and to evaluate the long range effects of any actions that they perform. Players who are incapable of acting in this manner are clearly not suited to run a character who is serving in the E.D.F.

E.D.F. personnel are encouraged to inflict damage to the enemy as long as they are able. This includes effectively suicidal efforts if capture is imminent. E.D.F. personnel are not encouraged to allow themselves to be taken prisoner - information extraction and all levels of personal abuse are to be expected, as I.L.R. troops are allowed more emotional leeway in their motivation than E.D.F. personnel, and their indoctrination includes considerable xenophobic rhetoric.

The E.D.F.'s emphasis on reasoned, unmotive conduct does not encourage soldiers to endanger themselves for the sake of taking prisoners. I.L.R. troops are at least as conscious of inflicting damage to the enemy as EDF troops, and are often booby trapped. These booby traps can include chemical, explosive, bio warfare and even nuclear/radiological devices. If enemy troops can be "safed", then they are treated humanely - but at a distance. (Note; E.D.F. personnel, if given the opportunity, may attempt suicidal booby traps as a last ditch attempt to make an impact on the enemy).

E.D.F. doctrine recognises the fact that if a situation cannot be efficiently defended, it is better to avoid engagement and conserve resources for future combat. E.D.F. soldiers are dedicated professionals fighting a dirty opponent, and have had to adapt often ruthless doctrines in order to compete.

Civil Unrest.
There are no set doctrines amongst most societies for dealing with civil unrest. It is only in recent years that governments have had to deal with organised riots, and therefore riot equipment such as tear gas and riot shields do not yet exist (although they could be fabricated).

In ConFed societies, rioters and demonstrators are viewed as citizens using their right to dissent. While troops have a duty to use any level of force required to ensure the security of military bases or the protection of innocent civilians, violence is only used against rioters as a last resort.
THE CONFED DIPLOMATIC SERVICE.
The confederacy employs a substantial corps of highly trained administrators and diplomats as a liaison between individual ConFed member worlds and the ConFed central government. On inner ConFed worlds, the diplomatic secretariat co-ordinates information exchange between worlds and governments, and provides information on ConFed policy which might not be available from the normal computer nets. On worlds which are only loosely affiliated with the ConFed central government, the diplomatic secretary acts as an ambassador.

It is in the "outworlds" that the most challenging and difficult work of the diplomatic service takes place. The diplomatic service is used to monitor and uphold ConFed policy upon member worlds, representing Central policy vs the policies of local government. The diplomatic service on such worlds forms an on the spot extension of the ConFed central government capable of asserting the policies of the Central government and advising local government. On outer ConFed worlds, the diplomatic service is a means of monitoring socio-political developments and advising local governments of their options for action. The ConFed diplomatic service is thus an important element in the "binding together" of the interstellar society of the ConFed, and often bears the brunt of the undeclared socio-political war which has recently come to light.

The powers of a planetary diplomatic service staff are limited by the ties which a world has with the ConFed government. On worlds which are only loosely affiliated with the ConFed, they have no civil authority at all. On the closely bound worlds of the Inner ConFed, they act as direct extensions of the authority of the central government, with the power to withdraw official recognition from local governments. On the worlds of the outer ConFed, the diplomatic service may hold varying degrees of civil authority in emergency situations.

The diplomatic service is deployed by and is answerable to the main government of the ConFed - ConFed Central. Since the ConFed is made up of a collection of independent worlds, the policy of the diplomatic service is largely non-interventionist - it can advise local government, but may not usurp its authority except in circumstances where there has been a failure in the local transference of political power. The diplomatic service may act as moderators and mediators between hostile factions, and will closely monitor socio-political trends on ConFed member planets in order to better advise local authorities of their possible options. All ConFed member worlds have a ConFed "mission" (embassy) at their capital city from which the local representatives of the ConFed diplomatic service will operate.

Personal conduct doctrine for diplomatic personnel. Members of the diplomatic service operate under much the same parameters as E.D.F. personnel. They are required to assess the long range consequences of their actions at all times, and to avoid any compromise of ConFed central's policies, including its policy of self determination for local government (within the boundaries of maintaining civil order).

Diplomatic personnel are cleared to assume civil authority on ConFed member worlds only if this is absolutely required due to the breakdown of the local means of power transfer. This does not mean that diplomatic personnel may start a counter government in the case of a coup, unless such an action will prevent complete breakdown of civil order. Diplomatic personnel are expected to identify and analyse dangerous social/political elements and trends, but are not authorised to take aggressive action against them unless this is required in order to prevent civil disorder. Direct intervention is preferably left to local authorities, eliminating the danger of public feeling being aroused against the ConFed.

LIFESTYLES
Over three periods of colonisation and one major war, a great deal of social diversity has come about in the worlds of known space. The more recent colonies (tertiary colonies) are highly variable in their social and economic bases.
The worlds of ConFed space are now split into two definitions - "inner worlds" and "out worlds". The inner worlds are those planets which were settled during the first or second waves of colonisation. They are fully independent economic and political entities. The 12 old "primary" colonies are all charter members of the ConFed, and are notably well motivated and stable societies. Inner worlds descended from the secondary colonies, however, are often wildly divergent from this model, and encompass a variety of socio-economic environments. Many of these worlds now sponsor their own colonial efforts.

Typical socio-economic systems within the ConFed.

The ConFed core worlds.
The older central worlds (the old "primary" colonies) tend to operate a socio-economic system which is best described as "socialist". The high state of robotic manufacturing has removed the necessity for many tedious laboring jobs. The state provides the individual with basic food, medical care and housing, and a minimal allowance for the purchase of consumer goods. When individuals desire additional purchasing power, they will take on some manner of job, but there is no real need to do so, since there is no drive to bring in a wage merely to pay the food bills and rent. Thus many citizens spend their days as "professional" students or dabbles in art and craft. Core world governments subsidise writers and artists, inventors and actors, giving them an active and innovative culture. Life in the core systems is by no means lazy and boring, as a huge variety of pursuits are readily available to every citizen.

A citizen's status, social responsibility and credit rating will increase as they show themselves to be an enterprising or competent individual. Even with the roboticisation of most "boring" laboring tasks, there are a number of jobs which require hands and brains. Professional careers are a necessary and valued part of technic civilisation, and the need for soldiers, police, bureaucrats and administrators remains high. In addition, "capitalistic" enterprises are freely entered into by many individuals, often with the aid of government grants, subsidies and franchises. Thus individuals can gain the satisfaction of independence from government "handouts" through taking on a greater responsibility for their own welfare. The central systems enjoy a wide variety of small time operations and individual businesses as citizens strive to improve their quality of life.

The Inner ConFed.
The societies which have grown out of the worlds which were settled during the secondary colonisation period display a number of widely divergent socio-economic infrastructures. As a rule there is more of a "money drive" in the inner confed and outworld systems, many of which lack the technology to support the sophisticated socialist states of the central systems. The socio-economic systems found in the inner ConFed and outworlds cover a wide range of possibilities, including free for all capitalism (in the most extreme cases, "capitalistic" worlds will have almost no state run enterprises, the government often forming a major company which offers a range of standard services with which private enterprise must compete).

The Outworlds.
Many systems which were settled during the tertiary period of colonisation are now well established, independent socio-political entities. The outworlds which have reached this stage of development are very much like the worlds of the outer ConFed described above, but tend to have far smaller populations and less comprehensive technological development. The outworlds are notable for their inhabitant's sense of post-colonial independence.

Many outworlds are colonies of other systems. Colonies are now defined as those planets which are dependent upon other worlds for the resources which allow them to survive, or whose populations are low enough to require a constant inflow of trade to supply exotic or consumer items.

The current crop of colonies are all products of the last fifty years of space exploration, and most colonies only exist to exploit a resource or to provide a service valuable enough to warrant the expense of supporting the colony in the first place (although a number of independent colonies exist which lack this resource oriented mentality). Colonies are often ruled by governors appointed by the colonies' home world, although the best developed colonies are self ruled. There are also a number of colonies which are in effect "company towns", in which all the inhabitants are employees of the colonies' sponsoring company, contracted to the business rather than to a government.

Colonies are always short on consumer goods, but normally support most of their own needs in the realms of essential tools and materials. Where they require support is in the realms of expert personnel, advanced education, specialised machinery and the like. The outworlds and colonies are often havens for folk who lacked opportunity in the inner ConFed, but
the low technologies of most outworlds force their populations to labour merely to cover the costs of their food and lodging. The proud independence of outworld citizens is often hard won.

Social attitudes.
In ALBEDO we find ourselves faced with a very young society - a society which is not encumbered by set traditions.

General.
The closest thing to social tradition available to the people of ALBEDO is shipboard discipline, and this is strongly ingrained in all levels of society. Simply stated, the individual member of society is not quite as "free" (in one sense of the word) as a 20th century western man, because the individual is strongly constrained by a set of expectations and responsibilities. The individual is expected to be an active citizen, and is conceived of as having both civil liberties and responsibilities. The fragile ecological and social environment on board colonisation ships has lead to the development of societies where the individual is expected to take his social role very seriously, and to contribute to the working of things around him. The individual is expected to behave in an intelligent, responsible manner, and to be aware of the implications of his or her actions. Citizens are expected to be aware of the long running consequences of their actions, and to act accordingly.

Thus in most cultures, if a person is injured, it is the civil duty of passers-by to assist that person however possible. If a passer-by refuses to aid the injured party, or pretends to ignore them, then the passer-by is held to be partly responsible for the subsequent condition of the injured man, and will be charged under law accordingly. Regional attitudes do vary, however. For instance, to the inhabitants of the Dorthant system, the tools of an ordered and peaceful society are its security measures, and the co-operation of the common citizen is an expected duty. To a Dorthantii, running away from or obstructing the authorities is a clear admission of guilt.

The practical upshot of the social attitudes prevalent in most cultures in ALBEDO is the creation of societies which are very politically and ecologically aware. The average citizens feel that they have a vested interest in the running of their government, their society and their planetary environment. Albedo is set in an age of REASON, where forethought and responsibility are highly valued faculties. In the context of the culture of known space, "honour" will usually equate as social responsibility.

Military traditions.
One of the unusual aspects of society in ALBEDO is that it does not actually HAVE any set military traditions. Organised militarism is a fairly recent development, and thus the troop motivating mechanisms familiar to our own society simply do not exist. Thus troops are perforce motivated by team spirit, patriotism and respect for their fellow soldiers. The coolly calculated ferocity of the I.L.R. soldiery, and the stalwart professionalism of the E.D.F. bear witness to the efficiency of these techniques.

There is no formalised military etiquette. Salutes and other elaborations are all missing from military life. To indicate deference and respect, ranks and titles are used when speaking to one's superiors, and a respectful attitude is maintained. Other formalised gestures are alien to the scenario.

Day to day life.
Interstellar society is made up of a huge variety of people who organise their lives in many different ways. We shall make no attempt here to discuss the quality of life of eights of billions of individuals, but instead we shall look at a few aspects of life which will add colour to the campaign background.

Not all races of creatures live together in relative harmony (as shown by the racist doctrines of the I.L.R.). Races either do or don't get along together according to their temperaments. One of the first things that happened after the development of practical interstellar travel was the establishment of species-specific colonies, most of which quickly developed divergent cultures. As a rule, however, divisions between people are seen as differences between culture and nation of birth, and not physical appearance.

Law and surveillance varies greatly from world to world. The older central systems have very highly developed civil surveillance systems (using stationary monitors, mobile security patrols and
communications monitoring) allowing security forces to closely monitor the activities of the citizens. While societies such as Dorthant use this system wisely, intending the security monitors only to protect the public without intruding into the citizens' privacy, many outworlds view close monitoring with horror. Indeed, the close monitoring system could easily be used as a tool by police states to spy on their populaces. Many societies feel strongly about overt police presences and security surveillance. As always, no two worlds will be exactly alike.

The environments in which people live are quite varied. Colony worlds are a strange mix of local florae and faunae and imported varieties. The interstellar pine, eucalyptus and interstellar grass are present on just about every world, as are the descendants of the familiar lower life forms which were brought to space with the first waves of colonists from Arras Chanka. All inhabited "terrestrial" worlds have comfortably breathable atmospheres, water and some sort of consumer industries - the essentials of technic civilisation.

Languages and communication.
The worlds of known space share a common language dubbed "standard". Over the past two centuries, "standard" has begun to diversify. Under the influence of the sudden divergence of background environments and lifestyles caused by stellar civilisation, individual regions and worlds began to develop distinctive modes of pronunciation and local colloquialisms. The older central systems have now developed accents and vernacular modes which are so thick as to be barely recognisable by inhabitants of other systems, although all citizens can usually revert to speaking pure "standard" at need. Colony worlds usually diverge very little from pure "standard", having had little time to develop colloquial forms.

In a campaign, it is best if the umpire tries to develop accents for the denizens of worlds which the player characters frequent. Anything from a southern American drawl to a Germanic pronunciation technique (ie. the verbs before the prepositions put) can emphasise that the local people are different to the players. Characters from planets with widely divergent accents or cultures will also have more exotic personal names than their more mundane fellows.

All worlds use one standard alphabet, which is phonetically based, unlike our current English alphabet, and is thus quicker to learn and simpler to use. "Standard" has no vowel combination rules or silent letters. Pronunciation techniques are similar to the non-English European form (ie pronounce "W" as "V", as if you were speaking German), and so some phonemes are not represented. The grammar and punctuation of "standard" follows the usual English forms, but since there are no "capital" forms for letters, proper names and/or the subjects of sentences will have a bar over the first letter.

Entertainment.
With a fairly young culture, the populace of known space in ALBEDO does not have recourse to the wealth of leisure activities enjoyed by the reader. Amongst off duty E.D.F. personnel standard activities will be role playing and simulation games, gambling, simple sports/martial arts (team sports tend towards informal games of "tag") and discussing the thoughts for the day. With an embryonic entertainment industry, conversation will occupy much of a character's off hours.

The arts are currently in a state of development and innovation. Music is something of an experimental subject, and the experience is something of a novelty. The tonal rhythms are simple, but keyed to soothing psychological sympathies. Visual art is beginning to diverge from straightforward representational art, seeking new depths of communication. Characters who are artists and musicians are exploring fascinating new territory.

The ALBEDO skill lists include martial arts. As stated above, martial arts are simple, and lack the formalised postures of Karate or Ju-jitsu. These
martial arts are sports born from combat experience. "Boxing" covers the skill of foot and fist boxing, a free-for-all unarmed combat style which covers all strikes and blows from punches to head buts. "Wrestling" describes a scientific grappling and limb locking art much like Judo or Ju-jitsu, where opponents are thrown off balance and immobilised. "Stick fighting" is more of a sport than the other arts, and uses a 1 metre long staff (a padded plastic rod for practice fights) in blows similar to those used in quarter-staff fighting and Kendo.

The state encouragement of private entrepreneurial enterprises in the inner ConFed is very strongly present in the consumer goods and entertainment industries. Governments are well aware that the services that they offer are practical, efficient, and dull. They thus encourage the development of new consumer goods and "frivolous" pursuits. A large part of interstellar trade consists of the selling of data, designs and franchises for consumer items.

One major note at this point is that hallucinogenic substances (such as alcoholic beverages) are virtually unknown, and their use as a form of "entertainment" would be totally abhorrent to the people of such a rational age (remember the "ship's discipline" influence upon ALBEDO's culture. Losing control of your faculties aboard a starship is not encouraged). Perhaps someday alcoholic beverages might develop, but firstly someone has to invent the concept, and then there has to be sufficient motivation to spread the idea (a very difficult proposition when there is no cultural encouragement).

Remember that the social/sexual behavior of critters is somewhat non-human. For example, some creatures will go through periods where they do not desire companionship, or feel no stirring of their libido (on the other hand, some species will have periods where the reverse holds true!)

Environments.
The inhabited worlds of known space fall into two types - those with open environments, and those with artificial environments.

Artificial environments.
Many communities exist in controlled artificial environments, either on planets with hostile atmospheres, in zero-G communities or on spun structures. Such establishments will only exist where there is enough profit to be made on site to cover the expense, inconvenience and discomfort of living in such restricted circumstances. Communities which utilise artificial environments will rely heavily upon imports for the provision of specialised equipment and consumer goods, and are often tied to a parent company or home planet. Most well developed systems will have starports or shipyards, research stations or zero-G factories in high orbit.

Systems which are inhabited only by populations living in structures or protected environments might have just about any sort of stellar primary or physical configuration. The populations of hostile environment worlds are usually non-permanent, being rotated off world at regular intervals. The gravity on hostile environment worlds will vary between almost non existent and downright oppressive Worlds which have gravity high enough to be a serious health risk to living beings will normally be worked by robots.

Open environments.
Open environments are those planets whose atmosphere, water and bio-system will support critteroid life without recourse to special artificial aids. All terrestrial worlds will tend to have gravity of about one G, and will probable have stars in the F-G-K range. The self sustaining colonies/homeworlds of known space are established on worlds with oxygen/nitrogen atmospheres, usable water and a lack of advanced life forms. The immediately explored region of space has an abundance of such worlds, all
of which conspicuously lack advanced life forms (ie higher up the evolutionary scale than simple plants and arthropods). Most worlds are well stocked with flora and supportive fauna taken from the original stocks found on Arras Chanka.

It is not known whether the abundance of usable worlds is the normal state of affairs for the universe as a whole, or if it is simply some quirk of the local region of space. Exploration has revealed planets with native fauna, but these always have dramatically different biochemistry to that of the sentient lifeforms. Most worlds are very young - either pre-biotic or just beginning to establish eco-systems.

TECHNOLOGY

The technic society so mysteriously established on the planet Arras Chanka had a wide array of sophisticated technologies at its disposal. Room temperature super conductors, fusion power, artificial intelligence technology, robotics, robotic manufacturing and bio-mass production (a means of synthetic food production) to name but a few. The question of the origin of civilisation some 200 years ago prompted the swift development of space travel based on fusion drives. In the wake of the discovery of the jump drive and the first period of interstellar colonisation, many technologies were refined and developed. At the time our game begins, most technologies have "plateaued out", and no new developments have been discovered for some decades.

Aerospace Technology.

Space craft in ALBEDO are divided into two separate streams - aerodynes and starships. Aerodynes are fusion powered semi-lifting bodies which may operate in either space environments (using a fusion powered reaction drive) or within a planetary atmosphere (using fusion powered jets). Aerodynes are VERTOL capable, highly manoeuvrable craft which are by far the most common civil and military aerospace vehicles. In a military role, aeroydne gunships and assault craft perform functions similar to 20th century fighters, helicopters and transport aircraft (just cheaper, faster and more efficiently). Long endurance aerodynes equipped with multiple reactors and jump drives serve as light freighters, scout craft and couriers. Aerodynes range between the size of a minibus up to a maximum of 8000 tonnes mass.

True starships start at about 10,000 tonnes of mass and are not designed to re-enter planetary atmospheres. Destroyer sized military craft might bulk as much as 50,000 to 100,000 tonnes, and VLCSV's can be many eights of times bigger (up to a maximum of 5 kilometers long by 1 kilometer wide!). All starships are built along very similar lines - a blunt ended cylinder with a fusion drive at one end. Fuel tankage is placed to the fore and aft, as shielding around the reactors and as an additional layer of armour under the vehicle's skin. Military vehicles will have densely packed layers of monomolecular laminate armour and a high payload of missiles and drones. Decks are oriented with the "down" direction towards the engines.

Starship combats vary depending upon the relative speeds of the combatants. In engagements with high relative velocities, ships beam weapons cannot cause much damage, since they have very little time to chew their way through a target's layers of ablative skin, armour, fuel and bulkheads. In such cases, the best weapons are drones and missiles, and the high relative velocities can often make warheads superfluous.

Starships form a defensive/ offensive perimeter about themselves with ACV's (autonomous combat vehicles), a "smart" missile that can not only track and attack a target, but plot its own tactics and strategy as an independent weapon or in concert with other ACV's and the mother ship. ACV's have a comprehensive array of communications equipment and sensors, and thus serve as intelligence ferrets and command relays. ACV's are based upon the jump capable message torpedoes used for interstellar communications, but lack the jump drives of such systems. Capable of acceleration spurts of up to 50 G's, ACV's come with a variety of add on features such as beam generators, automatic cannon and sub-munitions. While normally unarmoured, the computer core and reactor packages can be buried in layers of armoured protection over a meter thick. This block, (usually accompanied by a spray of "munition" iron slugs), make up most of the impact mass for ramming attacks and bombardments.

The reaction times for these kind of ship to ship actions are in orders of magnitude too fast for a ship's organic masters to follow, and thus are handled by a group of disconnectingly intelligent computers. A ship's A.I. computers require their live crews for maintenance, back up and creative tactics plotting in the days of approach before a combat begins.

In ALBEDO, ships travel at transluminary velocities through the use of a "Jump Drive", which is only operable well outside of a star system's gravity well
(30 to 40 A.U.'s out from the system's center of mass). This distance may take about 38 days for a slow acceleration vehicle (such as a freighter) to traverse. Speedier vessels (i.e. warships) will be able to make much better time if the crew is willing to suffer the discomfort of high acceleration.

A ship's build up of energy before a jump is highly dependent upon the vessel's acceleration. The fusion reactor "jet" is fed through MHD coils before becoming exhaust thrust, and the energy thus generated is stored until enough is available to form a jump field (via the ship's jump field generators, which line the vessel's inner hull). With the jump field formed, the ship drops out of the relativistic universe, reappearing at another point in the universe with no loss of time or velocity. Ships must jump from far outside of a gravity well, and the destination must be the next gravity well in line of flight. Ships which jump while too close to a gravity well will have only a proportion of their mass "go over" (starting with the lighter elements). To an observer, the ship will seem to blow up, smearing itself across a wide area.

As a final note on aerospace technology, please remember that there are no anti gravity or artificial gravity/anti acceleration technologies. Ships move at velocities which their living crew can handle, and ships are designed with free fall movement and acceleration orientation in mind.

Bio-sciences.
The high state of medical technology now means that very few patients will succumb to their injuries if they can be brought to hospitalised care. Roboticised patient support now leaves a higher percentage of hospital staff free to indulge in specialist fields, removing the doctor/nurse distinction of the hospitals of 20th century earth. Limb grafting techniques, artificial blood, synthetic organs (often grown from tissue samples taken from the patient) and effective cancer therapy are taken for granted amongst high technology society. Patients who are drastically wounded can be put into a "frozen sleep" until they can be brought to a proper medical facility, although this is a dangerous process.

Computers.
Computer technology is a very common part of day to day life in ALBEDO. Every well equipped household has its home computer, and more extensive data processing is available through any citizens telephone account. Computers are fairly specialised in function, but the high state of communications technology allows computers to call in specialised functions from other machines with ease. Most computers are voice responsive.
Computers form the major means of distributing "consumer" information. Electronic mail (usually verbally dictated to the computer) and electronic "billboards" allow a high rate of information exchange between private citizens. Civil news and debate nets have now replaced the daily newspaper as the standard means of disseminating current events to the masses, and TV news supplements its presentation with continually modified printed texts. These texts are readily cross referenced with "newspaper" archives, greatly increasing the average citizens current affairs literacy.

Artificial intelligences are a highly developed, under used technology in the ALBEDO universe. When combined with a large data base, artificial intelligences are sophisticated and flexible systems capable of independent thought. "A.I.'s" are invaluable aids in the running of starships and research projects, since they can both coalesce and evaluate data at rates far exceeding that of organic life. However, "A.I.'s" are expensive little toys, and do not intrude much into the day to day life of most citizens. Most aerodynes or combat AFVs will have an A.I. as part of the crew.

Robotic technology is commonplace in the ALBEDO universe. On the most highly developed worlds, robotic manufacturing centers produce most of society's basic material needs, eliminating most tedious manual laboring tasks. At the current state of the art, robots are used for a great many functions which do not require flexibility of evaluative judgement. Common robots include bartender, cleaning and maintenance robots which are free moving, thinking artifacts in their own right. Robots are capable of limited and strictly defined functions, and are usually linked into proper artificial intelligences when a high level of response and evaluation is required for the robot's task.

Energy.
Fusion power plants are the most common means of power generation in use by ALBEDO's technic society. Fusion power is clean, cheap and safe, although the shielding on generators tends to become radioactive as time goes by. The weight of the shielding required, and the size of the generators required to maintain a fusion power plant's "magnetic bottle" prevents the development of any fusion power plants of a size usable in small ground vehicles and personal weaponry.

Miscellaneous technologies.
Materials technology has progressed somewhat from that which would be familiar to the 20th century observer. Ceramics have largely replaced metals in all but a few areas. Buildings, sidewalks and cars in ALBEDO are mostly constructed of laminated ceramics, plastics and artificial materials.

Another development in the realms of materials science is monomolecular lamination. Monomolecular lamination technologies allow for single sheets of dissimilar atoms to be layered on top of each other to form a composite material. Monomolecular laminates achieve truly incredible materials performances, and are commonly used as vehicle armour, structural supports and power plant shielding. The use of monomolecular laminate vehicle armour renders AFVs immune to infantry portable weapon systems and chemical energy weapons.

Personal weapons all rely upon kinetic energy principles - there are no blasters, phasers or laser pistols in ALBEDO. Up until the I.L.R. split, everyone had very similar weapons and calibres, and there was a fair amount of standardisation. Since the split, the I.L.R. and the E.D.F. have pursued mutually incompatible systems. The E.D.F. use conventional cartridged ammunition in 8mm caliber, in pistol, carbine and rifle sizes (although 6mm and 4mm caliber weapons are available for use by some of the smaller beasties). Armour piercing rounds are sub-caliber sabotated darts. The I.L.R. has chosen a 6mm caseless system, which has less individual stopping power, but which is considerably more compact than 8mm rounds. Ballistic body armours are not proofed against infantry fire arms, but do manage to greatly improve the chances of surviving a hit.

Energy weapons see some success as spatial weapons systems. They have not proved viable weapons for ground vehicles due to the need for a beam to play across the target for some time before doing real damage. Aerodyne beam weapons are, however, commonly used to suppress ground forces. Standard ships beam weapons include lasers (pulsed for explosive heating impact), electron and proton beams. X-ray laser technology is not being pursued at this time.

"Bio mass", which forms a large part of the basic diet of the various "carnivorous" species also deserves a brief description. Basic bio mass is a composite organism (algae and bacteria) which contains a good cross-section of proteins and carbohydrates. A number of variations on basic bio mass ("fancy food") exist, each with their own distinctive flavors and textures.
RACES
The ALBEDO game environment is populated with anthropomorphised animals rather than human beings. Animal characters (or "Critters") are played much like the humanoid characters found in other games, but with the added bonus that each species has its own distinctive appearance, features and psychological quirks. These creatures are alien, and should not be treated as cute furry little people.

ALBEDO's races are all mammals or avians.

Physiology:
The "critters" which populate ALBEDO are different enough from humans to rate a brief discussion about the special problems and advantages which an anthropomorphised animal will live with from day to day.

Sex & reproduction: Critters are divided into definite species, each of which breeds true. There are no hybridised offspring in ALBEDO, except in the case of breeds which are physically very similar (ie different sub-variants of dog). This can cause characters a number of emotional problems. Although members of different species may feel sexually attracted to one another, children are only possible to couples of the same species. Doubtless many devoted "mixed" couples will resort to adoption or artificial insemination when they wish children.

Sexual behavior is also non-human. The sex life of characters in ALBEDO can often be complicated by mating seasons and runaway pheromones. Females of most species can voluntarily control their pheromones to some extent. Some males, at least those from species with dramatic sex signaling features can cosmetically enhance them. The females of most races can also control their fertility to an extent which makes contraceptives an unnecessary invention.

Most societies do have a system of formalised relationships similar to marriage. It should be noted that many races are very protective of their females, and thus are prone to a variety of "sexism". The lives and careers of female characters will often be complicated by misguided attitudes of their male colleagues. Fortunately, enough responsible people exist to make sexist attitudes less of a problem than they could be.
Physical structure: Most critters are equipped with three fingers and a thumb. Critters descended from hooved animals have a slightly clumsier arrangement, using their modified hooves as hands. Critters whose ancestors came equipped with claws now only have fingernails at the end of their digits.

A sizable proportion of species in ALBEDO have tails. While chipmunks and the like have short little tails which do not intrude much into day to day life, many species will have quite stylish caudal appendages. Clothing is designed to allow tails free movement. The position of tails and ears give critters in ALBEDO a very visible and flexible "body language" which greatly adds to their capacity for self expression.

The feet and legs of many species are constructed somewhat differently to those of humans. The long foot bones and abbreviated thigh bones of many animal types gives the appearance of the leg joints being reversed. This is termed digitigrade leg configuration. Such creatures effectively walk on the balls of their feet, with the toe section of their foot in contact with the ground, and the bulk of their foot forming what we would call their "calf". Readers who think this unattractive need only look at the internal illustrations to see otherwise.

Remember that most species are covered in fur. Fur provides good insulation from the cold or from hot sun, but is hell to dry out after a shower. In addition to body fur, some species have extensive head hair, although prominent head hair is not always the current fashion. One side effect of having a permanent fur coat is a lack of sweat glands. Most fur bearin' critters do not have the ability to evaporate moisture from the skin to cool themselves (except through the hands and feet), but instead must pant. Bear this in mind whenever a fatigued character attempts to move silently . . .

Species of herbivorous descent retain their vegetarian natures, enjoying a wide variety of grains, fruits and vegetables. Herbivorous species are not equipped to eat grass. Carnivore descended species eat the foodstuffs created by bio-mass producers, supplemented by a good quantity of vegetable matter.

Senses: While avians and the small eared creatures have hearing approximating the human range, the larger eared mammals have quite sensitive hearing, exceeding the human norm. This gives them a greater range of hearing, and a more accurate sense of direction (facilitated by their ability to swivel their ears). They are also far more sensitive to loud noises than avians or humans, and can react very badly to high pitched sound and ultrasounds.

The senses of smell and sight amongst critters are equivalent to human in strength and discrimination. Critters have full colour vision, forward focusing eyes and good far/near sight. Some species will have enhanced night vision (thereby becoming more sensitive to intense light). Races which have excellent night vision include possums, cats and owls.

Mammalian critters often pay more attention to scents than many humans are wont to do, but do not exceed human olfactory capability. There are no "blood hound" abilities amongst sentient creatures.

Character race determination: Before rolling a character, each player must decide what sort of creature his or her character is going to be. This is quite simply done by looking on the charts below to see what options are open for the character's race. The entry for each racial type includes the size of the various sub-species (recorded as their "frame" - see the rules section on characteristics determination) and their characteristics classes for their strength, stamina, manual dexterity, co-ordination and stability. Races are recorded by general type and specific sub category.

The type of critter chosen does not necessarily govern the character's behavior. Do not stereotype characters into timid little mice or big bad wolves. Sentient races are complex individuals, and personal attitudes and inclinations vary widely amongst individuals.
It is a good idea to list the advantages and disadvantages conferred by a character's race on the front of the character sheet. This allows play to be more easily influenced by the player characters' racial types.

AVIANS:
Sub categories:
Minor avians (Small frame)
Str: A
Sta: D
M.Dex: E
Co-ord: F
Stab: D

Major avians (Light frame)
Str: B
Sta: D
M.Dex: D
Co-ord: E
Stab: D

Ratites (Average frame)
Str: D
Sta: D
M.Dex: D
Co-ord: D
Stab: D

Notes: Minor avians include Crows, Ducks, Parrots, Sea-gulls and Penguins. Major Avians are Eagles, Hawks, Herons and Ravens. Ratites are descendants of the great flightless birds such as Emus and Ostriches.

An avian's wings are not strong enough to allow flight, but can be useful for manoeuvre in zero-G conditions. The wrist joint of most avian species is equipped with a small hand (much like the "hand" arrangement on a bat or pterodactyl). A punch delivered by an avian character will do 1 less point of damage than normal, while a kick delivered by avian feet will do 1 extra point of damage due to the sturdy claws fitted to the feet of all birds (even ducks and penguins). The grip delivered by avian hands is relatively weak, so a DRM of +1 should be made whenever an avian attempts an activity which relies heavily upon strength of grip (eg. hauling on a rope attached to a heavy object).

Avian characters will not normally wear clothing (apart from decoration, rank badges and protective clothing), thus saving some wear and tear on the character's budget. There are no vacc suit liners made to fit avians (penguins are an exception). Avians in space will don full vacc suits, normally with separate sleeves which will only be pulled on in moments of high danger or immediately before risking vacuum exposure.

Each sub type of avian has its own particular differences. Some birds may use their wings to perform extended jumps or to slow a fall. Penguins will be natural swimmers. Eagle or hawk characters will have excellent long sight. Ratites have very flexible necks.

Temperaments will vary from sub-species to sub species. Penguins seem to have developed an affinity for practical scientific skills, and often favour roles in the medical or heavy engineering professions. Penguins are notable for their strong family ties, and are often found working or travelling in "pods" of 2 to 6 individuals. Hawks and eagles, on the other hand, are fairly solitary, rarely seeking to be in groups of their own species.

The splendid plumage of many male avians, coupled with their dislike of wearing clothes leads many people to consider avians vain. With most avian species, however, their easy grace and beauty is more pleasing than irritating.
**CANINES:**

**Sub categories:**

**Dogs (Average/Light frame)**
- Str: D/B
- Sta: D
- M.Dex: D
- Co-ord: D/E
- Stab: D

**Wolves (Solid frame)**
- Str: E
- Sta: D
- M.Dex: D
- Co-ord: C
- Stab: C

**Foxes (Light frame)**
- Str: B
- Sta: D
- M.Dex: D
- Co-ord: E
- Stab: D

**Notes:** The most numerous single racial class. Dogs come in a huge number of sub species, most of which can interbreed with each other. Thus, dogs are a fairly sociable and co-operative species. Dog "breeds" cover a wide range of sizes and shapes. Small dogs will be terriers, while the largest will be heavily set dobermans and hounds.

Wolves are a heavier, more solid species than dogs, and seldom interbreed with their lesser cousins. Wolves tend towards shorter tempers and more calculating dispositions than dogs, and are far less numerous.

Foxes are light framed carnivores with delicate, pointed faces. More calculating and inquisitive than other canine types, foxes also tend to be less bluff & bolterous. The bright fur and gorgeous tails of foxes make them particularly pleasing to the eye, and well co-ordinated foxes are extremely graceful. Many fox species have digitigrade feet. The smallest foxes may be fenneces, whose large ears give them extra-ordinarily acute hearing.

**FELINES:**

**Sub categories:**

**Cat (Light frame)**
- Str: B
- Sta: D
- M.Dex: D
- Co-ord: E
- Stab: E

**Lynx, Cougar or Jaguar (Average frame)**
- Str: D
- Sta: C
- M.Dex: D
- Co-ord: E
- Stab: D

**Lion/Tiger (Solid frame)**
- Str: E
- Sta: C
- M.Dex: D
- Co-ord: D
- Stab: D

**Notes:** Felines in the "cat" sub-species come in a large variety of sub-variants which vary according to the characteristic patterning of fur or the presence/non presence of a tail. Some species of cat have digitigrade feet, while most do not. The unimposing size of the various cat species is well matched by their high agility.

The larger feline species (lions, tigers, lynxes, jaguars etc) are much rarer than their smaller brethren. While they combine considerable strength with a good dexterity, their heart/lung systems are not designed to support sustained physical effort.

Felines are often wrongly characterised as being fickle, a notion which should be dismissed by anyone who has tried to change a cat's mind about something! Cats are notable for their independence, although this does not stop them from forming very strong ties with selected individuals.
MARSUPIALS:
Sub categories:
Platypus (small frame)
Str: B
Sta: D
M.Dex: D
Co-ord: E
Stab: E

Possum (Light frame)
Str: B
Sta: C
M.Dex: D
Co-ord: F
Stab: C

Kangaroo (Average frame)
Str: D
Sta: D
M.Dex: D
Co-ord: D
Stab: D

Notes: Platypi are small, densely muscled, stubborn little monotremes. The poisonous spurs of male platypi have atrophied down to vestigial toenails. Likewise these creatures have lost their ancestor's ability to sense the electrical signature of other beings (look it up).

MUSTELINAE:
Sub categories:
Otter, Stoat, Ferret (Light frame)
Str: B
Sta: D
M.Dex: D
Co-ord: E
Stab: B

Weasel (Light frame)
Str: B
Sta: D
M.Dex: D
Co-ord: E
Stab: E

Notes: Quick, graceful characters, often brimming with nervous energy. Mustelinae are a successful species group with considerable charisma. Their hyperactive natures can occasionally get on the nerves of other, more sedate races. Otters are natural born swimmers.

Common opinion often fits mustelines into set of racial stereotypes. It is "common knowledge" that weasels are calm and calculating, and that all stoats have short tempers. Some people feel that otters are naive in their playful inquisitiveness and easy going natures. Experience has shown, however, that weasels, stoats, ferrets and otters can be quick thinkers, ruthless opponents or caring friends, proving once again that racial stereotypes are bigoted nonsense. Mustelinae often turn their energy towards entreprenural or governmental careers.

Possums are descended from the highly adaptable Australasian Phalangers (brush tailed or ring tailed possums), this is a minor category which has seen some increase in standing since the advent of starship travel. The prehensile tails and agile gripping feet of the various species of possum make them extraordinarily agile in zero-G. Possums are better adapted to short bursts of physical activity rather than sustained effort.

Kangaroos are hefty averaged framed creatures with pronounced digitigrade feet. Their heavy tails can support their owner's weight and serve as a seat.

Marsupial females are highly independent, due to the pouches in which they carry their young. Marsupials with infants and young children rarely need to leave their careers, since their unobtrusive and highly portable infants do not interfere with their tool using capacity, or even require much constant attention. Possums tend to favour careers in shipboard/zero-G fields, or involve themselves in zero-G colony activities.
RODENTS:
Sub categories:
Mice, Rats (Small frame)
Str: A
Sta: D
M.Dex: E
Co-ord: F
Stab: D

Rabbits, Chipmunks, Squirrels (Light frame)
Str: B
Sta: D
M.Dex: D
Co-ord: E
Stab: D

Beavers (Average frame)
Str: D
Sta: D
M.Dex: D
Co-ord: D
Stab: D

Notes: A highly successful category, despite the small average size of its individual species. The high adaptability and fertility of rodentia have given them a firm place in “Critteroid” society. Rodents are notable for their gregarious natures, and can be cunning and clever creatures.

Mice and rats are typical members of the rodent family. While most mice are too lightly built to make good infantrymen, mice and rats feature strongly in military forces as vehicle crews, technical support and staff (mice in particular seem to favour staff appointments).

Rabbits are a highly populous species. Many species specific colonies were established during the second wave of colonisation, and rabbits were notable for entering into this voluntary segregation. Many segregated colonies have developed highly racist (even paranoid) attitudes towards other species. The rabbits which have remained integrated with normal society, however, are normally well adjusted citizens.

Beavers, chipmunks and squirrels are far less numerous than the other rodent species, but have proved to be quite adaptable creatures, and are present in most planetary populations.

UNGULATES:
Sub categories:
Camel, Cow, Llama, Horse (Solid frame)
Str: E
Sta: E
M.Dex: C
Co-ord: C
Stab: G

Goat, Sheep, Pig (Average frame)
Str: D
Sta: D
M.Dex: C
Co-ord: D
Stab: B

Rhino (Huge frame)
Str: G
Sta: D
M.Dex: C
Co-ord: B
Stab: C

Notes: Sentients descended from hooved animals are slightly disadvantaged in that they lack the flexible fingers of the other creatures. The vestigal toes of horses and their kin have reappeared as fingers, while the main hoof has shrunken down to match them in size. This effectively gives ungulates 2 clumsy opposable thumbs and one finger. A minor advantage of having rigid horny fingers is that a punch from such creatures will do 1 more point of damage than from critters using a normal fist.

Ungulates tend to concentrate upon the “humanities” fields when entering into an advanced education, and are often found working in the academic, artistic or entertainment fields.
URSIDS:
Sub categories:
Raccoon (Average frame)
Str: C
Sta: D
M.Dex: D
Co-ord: E
Stab: C

Bears (Huge frame)
Str: G
Sta: C
M.Dex: D
Co-ord: B
Stab: G

Notes: Omnivorous relatives of the canine family, bears and raccoons are good tool users. The imposing bulk of bears makes them extremely dangerous opponents in a fight. Do not be fooled into thinking that a bear's solid build means that it has the slow temper and easy disposition of a big man in a small world. Large bears might just as easily be gourchly, or even brutal bullies. Bears tend to like positions of authority, but are not always qualified for them.

OTHER RACES: Should a player feel a strong desire to go an Hedgehog, an ant-eater or a Mole, or some other creature not listed here, the decision is left to the discretion of the umpire. The only restrictions are that there are no cold blooded creatures (frogs, lizards and the like), no marine mammals (e.g., dolphins. Penguins are allowable since they are capable of life on the land), and no primates! The denizens of ALBEDO encompass 163 separate races, so lack of scope should be no problem.

BACKGROUND ENVIRONMENT.
Players should form a firm idea about their character's world and society of origin. The lifestyles section of book 3 extensively details out the types of cultures which may be found in known space. Backgrounds which diverge from the model of the older inner worlds should be discussed with the umpire so that everyone present understands the ramifications of the character's background.

Most characters will have names somewhat reminiscent of modern first names and surnames. Characters who hail from planets with somewhat divergent socio-political environments will have far more exotic names. Characters from the older inner worlds will usually speak "standard" with heavy accents.

Sample character names taken from the ERMA FELNA E.D.F. story include:
Erma, Eda, Kanok and Tasak Felna
Joseph and Itzak Arrak
Colonel Hitzok
Sergeant Tzoquoth
Htzktl ("Hotzktel")
Qtzhihi ("Quetzelhoi")
I.L.R. Names mentioned in the story include such convoluted names as Aerhanemenah, Bhallanieha and Tehstoah.

Names from the Birthright story include Anton, Alfon, Andre and Kenda Kashoka, and Jenna Shodi.

Please note that a lot of English and European names are used. Players who insist on giving their characters "cutie" names should be ritually killed as a warning to the others - Cute, stereotyped names will seriously prejudice play, and indicate that your player does not wish to take the game seriously.

A character's background will also effect its choice of career. While professional students and dabbler in the arts and crafts are common on the inner worlds, whose governments provide all of their citizens with housing, food and a basic spending allowance, such careers are rare on the more capitalistic worlds where a wage must be earned simply to provide food and shelter. Military characters from colony worlds will be more likely to be in the local Homeguard than in the E.D.F., which draws the greater bulk of its recruits from the inner systems (which are far closer to the E.D.F.'s training academies). Finally, a character's background environment will quite definitely effect its starting ties and antipathies. The older inner worlds are all staunch ConFed governments, and this attitude will often be reflected in the attitudes of military characters from these worlds. The citizens of the outworld colonies tend towards a loyalty to their own worlds over and above the ConFed government. The citizens of species specific worlds (inhabited by one species only) will often have mistaken or bigoted attitudes towards other species.
CHARACTERISTICS
The following section details the physical and mental attributes of individual characters which we will simulate in this game. Only those characteristics which will possibly have to be tested during play or which will effect a character's skills are used. Amongst the game charts you will find a ready reference sheet for character generation. Follow the procedures detailed on the cheat sheet for the quickest technique of creating characters.

THE BASIC CHARACTERISTICS:
The characters used in ALBEDO (from here on commonly referred to as "critters") are possessed of a wide variety of inherent abilities and talents, which this game shall define within eight characteristics; STRENGTH, STAMINA, MANUAL DEXTERITY, CO-ORDINATION, REASON, INTUITION, DRIVE and STABILITY.

These basic characteristics contain the physical, neuro-physical, mental and psychological abilities of the character. All characteristics are given a numerical value, which is randomly generated and recorded on the player's character sheet.

Frame sizes.
This is an indication of the physical bulk of the character, and largely determines the creature's strength and co-ordination. Most critters are built to a slightly smaller scale than human beings. An "average" framed human is closer to the "solid frame" category for critter builds.

Characteristics classes.
Most characteristics numerical values are generated on the characteristics class chart (overleaf). A character's species determines its class of strength, stamina, manual dexterity, co-ordination and stability.

Other characteristic dice rolls.
A character's scores in Reason, Intuition and Drive are rolled on 2D6+3. This gives a range between 5 and 15, which conveniently brackets characteristics between .5 and 1.5 of the mean result of 10.

A character's starting SELF IMAGE score is equal to the character's DRIVE.

THE CHARACTERISTICS.
Physical characteristics:
STRENGTH is the expression of the brute force which the individual can apply. It is also used to indicate the character's physical size and physique. STRENGTH is a measure of the character's ability to lift weights and arm wrestle, and its ability to resist damage and shock. STAMINA is used to determine the length that any physical activity can last.
Species based characteristics chart.

<table>
<thead>
<tr>
<th>Class</th>
<th>Dice roll (2D6)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2  3  4  5  6  7  8  9  10  11  12</td>
</tr>
<tr>
<td>A</td>
<td>3  4  4  5  5  5  5  6  6  7  7</td>
</tr>
<tr>
<td>B</td>
<td>5  6  6  7  7  8  8  9  9 10 11</td>
</tr>
<tr>
<td>C</td>
<td>6  7  7  8  8  9  9 10 10 11 12</td>
</tr>
<tr>
<td>D</td>
<td>7  8  8  9  9 10 10 11 11 12 13</td>
</tr>
<tr>
<td>E</td>
<td>9 10 10 11 11 12 12 13 13 13 14</td>
</tr>
<tr>
<td>F</td>
<td>10 10 11 11 12 12 12 13 13 14 15</td>
</tr>
<tr>
<td>G</td>
<td>11 11 12 12 12 13 13 14 15 15 16</td>
</tr>
</tbody>
</table>

To determine a character's species based characteristics, cross reference the score of 2D6 with the characteristic class to yield the characteristic score.

**Recoil.** A character's strength dictates the force of firearms recoil which it can comfortably handle. Provided that the character can control the recoil of its weapon, a number of shots may be made within the same turn (up to the character's maximum number of actions). To control the recoil of a weapon, the weapon must have a recoil value equal to or lower than the character's maximum recoil control rating. This rating is found in the chart below:

**Maximum controllable recoil**

<table>
<thead>
<tr>
<th>Character's strength:</th>
<th>Max recoil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 4</td>
<td>1</td>
</tr>
<tr>
<td>5 to 7</td>
<td>2</td>
</tr>
<tr>
<td>8 to 11</td>
<td>3</td>
</tr>
<tr>
<td>12 to 13</td>
<td>4</td>
</tr>
<tr>
<td>14 to 16</td>
<td>5</td>
</tr>
</tbody>
</table>

Subtract strength DRM's from the character's effective strength on this chart.

If the recoil of a weapon is higher than the permitted value, then 1 fatigue point is lost per point of excess recoil.

**Controlling a weapon's recoil.** Should more than one shot per turn be desired by a character with a weapon whose recoil is above the character's recoil control rating, the character must roll a test of its strength vs (3 times the recoil of the weapon). A successful test indicates that the character may once again fire its weapon. A failed test costs the character one action, and means that the character may not fire the weapon again during this turn.

Weapons firing wild bursts add one to their recoil.

**Neuro-physical characteristics:**

CO-ORDINATION and MANUAL DEXTERTY are a character's neuro-physical characteristics. MANUAL DEXTERTY is used to determine the control that the character can exert over more delicate manipulations and tasks, specifically the steadiness and accuracy which can be brought to bear on manual tasks. It also measures the character's hand-eye co-ordination. MANUAL DEXTERTY would be tested if the character was painting model soldiers, de-fusing a bomb or "cracking" a safe.

CO-ORDINATION is an expression of the characters' ability to perform simultaneous actions with different parts of the body, as well as providing an idea of the character's ability to retain its balance. CO-ORDINATION is also the measure of the individuals speed at performing actions such as drawing a gun etc.

As such CO-ORDINATION is used to assess a being's basic combat ability. STAMINA, however, is used to determine the length of time that any CO-ORDINATION based activities may be continued.
**Characteristics**

**Actions per turn:** The number of actions which a character can perform in any single turn is dependent upon the character's Co-ordination score. The action sequence chart at the rear of the rules is used to determine the priorities of the actions which a character performs.

**Actions per turn.**

<table>
<thead>
<tr>
<th>Character's co-ord:</th>
<th># of actions per turn:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2</td>
<td>1</td>
</tr>
<tr>
<td>3 to 4</td>
<td>2</td>
</tr>
<tr>
<td>5 to 8</td>
<td>3</td>
</tr>
<tr>
<td>9 to 12</td>
<td>4</td>
</tr>
<tr>
<td>13 to 15</td>
<td>5</td>
</tr>
</tbody>
</table>

Subtract any Co-ord DRM's from the character's co-ord score before looking on the above chart.

**Mental characteristics:**

REASON and INTUITION are mental characteristics. Both reflect different aspects of intelligence, the former being the individuals capacity for induction, logic, memory and pre-planning. The latter is the strength of the characters' "sixth sense". INTUITION is used in combat as a determination of the characters initiative. These characteristics represent those mental aspects of the character which will require defining to allow tests of memory, speed of thought and "sixth sense" to be made.

**Initiative dice.** A character's INTUITION score will determine the type of initiative dice it will roll when engaged in a firefight, as shown by the following chart:

<table>
<thead>
<tr>
<th>Character's Intuition</th>
<th>Type of dice rolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 8</td>
<td>1D6-1</td>
</tr>
<tr>
<td>9 to 11</td>
<td>1D6</td>
</tr>
<tr>
<td>12 to 13</td>
<td>1D6+1</td>
</tr>
<tr>
<td>14 to 15</td>
<td>3D3</td>
</tr>
</tbody>
</table>

Subtract intuition wound DRM's from the character's initiative dice rolls.

**Psychological characteristics:**

DRIVE and STABILITY are a character's psychological characteristics. An individual's DRIVE represents his willpower and determination. It is a measure of the motivation and self discipline that a character can bring to bear on any task with which it is faced. DRIVE is tested whenever a character wishes to embark on a long and difficult project, or when his determination comes under attack (such as a character declaring its intention to limp along on a wounded leg). A character's STABILITY rating represents the ease with which the character changes its emotional feelings about things. "Unstable" individuals are not insecure - merely quite changeable in their moods.

**Disposition.**

Each character or N.P.C. rolls twice on the disposition chart. The first of these rolls is the character's "core". This never changes, and should form the basis of much of the role play of that character. Conflicting dispositions are no real problem. A reckless person with a cautious disposition will act conservatively until pushed, whereupon he will become hot headed and irresponsible. A combination which the player can't figure out can always be rolled again. Roll 1D10, 1D10 +10 or 1D20 (players choice) on the following table.
### Random disposition determination.

<table>
<thead>
<tr>
<th>Dice roll</th>
<th>Disposition</th>
<th>Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/11</td>
<td>Cautious/Reckless</td>
<td>Paranoid/Manic</td>
</tr>
<tr>
<td>2/12</td>
<td>Polite/Vulgar</td>
<td>Syphonic/Obscene</td>
</tr>
<tr>
<td>3/13</td>
<td>Exacting/Vague</td>
<td>Perfectionist/Apathetic</td>
</tr>
<tr>
<td>4/14</td>
<td>Generous/Greedy</td>
<td>Wasteful/Miserly</td>
</tr>
<tr>
<td>5/15</td>
<td>Talkative/Laconic (reserved)</td>
<td>Hysterical/Mute</td>
</tr>
<tr>
<td>6/16</td>
<td>Kind/Cruel</td>
<td>Saintly/Diabolical</td>
</tr>
<tr>
<td>7/17</td>
<td>Responsible/Irresponsible</td>
<td>Fanatical/Amoral</td>
</tr>
<tr>
<td>8/18</td>
<td>Modest/Conceited</td>
<td>Antisocial/Messianic</td>
</tr>
<tr>
<td>9/19</td>
<td>Straightforward/Devious</td>
<td>Callous/Treacherous</td>
</tr>
<tr>
<td>10/20</td>
<td>Friendly/Cynical</td>
<td>Amorous/Psychopathic</td>
</tr>
</tbody>
</table>

**Numerical values:** Dispositions are given a numerical value, which allows them to be used in tests made on the comparison chart. A character's **core** is given a strength value equal to 1.5 times the character's DRIVE score. The second roll is the character's "inclination", and can be changed slowly over the years. Inclinations are given a strength value equal to the character's DRIVE score. When a disposition is rolled twice, it becomes a "disorder", and the characteristic is role-played to extreme lengths (ie "greed" rolled twice becomes miserliness). Disposition disorders are given a strength value of 2 times the character's DRIVE score.

The disposition chart does not deal with shyness, force of personality, or any other attitudes which are more a function of the player's individual mentality and playing style than the character's personality. Bravery and firmness of conviction are already incorporated into the system as the DRIVE characteristic and the character's self image (see below). Always bear an individual's characteristics in mind when role playing the character's disposition. For instance, a character who is kind, but has a high reason and drive could be a cold and clinical opponent at need, but would not tolerate acts of wanton cruelty.

Characters with psychological disorders will be refused entry into the E.D.F. or Homeguard.

### THE S.P.I. RATING.

The ConFed authorities use a standard index to measure the general intelligence and psychological stability of individual citizens. Termed the S.P.I. rating (Socio-Psych-Intel), this index is used to measure a citizen's general intelligence, mental balance and motivation. Many professions (such as the armed forces of the E.D.F.) require a minimum S.P.I. rating.

#### Advanced education S.P.I. Bonus.

<table>
<thead>
<tr>
<th>Skill class</th>
<th>Bonus</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>+.1</td>
</tr>
<tr>
<td>C</td>
<td>+.2</td>
</tr>
<tr>
<td>B</td>
<td>+.5</td>
</tr>
<tr>
<td>A</td>
<td>+.6</td>
</tr>
</tbody>
</table>

To find a character's normal S.P.I. rating, add the character's **reason**, **intuition** and **drive** characteristics together and divide the result by 10 (retaining all decimal places). Characters who gain levels of advanced education in Humanities, Scientific or Technical fields now receive bonuses to this basic rating depending on the highest level of advanced education that they have achieved:

A character's personality will also affect its S.P.I. rating. For every roll the character makes on the **disposition chart** of 11+, subtract .2 from the character's S.P.I. rating (see the rules section on character dispositions). If the character has a personality disorder, subtract .8 from the character's S.P.I. rating.
Semple character: Auitzotl (pronounced "weht-zottle")
Racial type: FOX
Strength: 8
Stamina: 10
M.Dexterity: 12
Co-ord: 11
Reason: 13
Intuition: 9
Drive: 14

Being a light framed FOX, Auitzotl has rolled on table B of the class based characteristics chart to determine his strength, and table D to determine his Stamina, Stability and M.Dex, and table E to find his Co-ord. Auitzotl's rolls have been rather good, particularly in the realm of mental attributes and drive. Moving across to the disposition chart, we make 2 rolls on 1D10, coming up with a 7 followed by a 5: Auitzotl's disposition is "responsible" and "talkative". His S.P.I. rating works out as 4.1 (13 + 9 + 14 + an extra bonus .5 due to his class B advanced education).

Auitzotl will be used throughout this book to illustrate various points of the games system rules. Auitzotl comes from a capitalist world in the outer Confed, and is currently serving in the E.D.F. as a combat vehicle crew commander with the rank of troop Lieutenant.

CHARACTERISTIC/SKILL TESTING.
Whenever a task is attempted, the appropriate skill or characteristic is tested to determine upon the success or failure of the character's attempt. When the attempt is being made against an animate object (such as another person) the relevant skills/characteristics of both parties are used in the test, the person attempting the task comparing his own abilities against those of his opponent on the comparison chart below.

When an attempt is made against an inanimate thing, such as an object or a set task, the test is made by comparing the relevant characteristic against the difficulty of the task. The task difficulty is represented by a number determined on the following chart:

Using the comparison chart.
Subtract the task difficulty or the defender's relevant characteristic from the relevant characteristic of skill of the character who is performing the test. The number yielded by this is now looked up at the top of the comparison chart. This gives a column in which the dice score required for success can be seen below the dividing line.

The roll succeeds on any dice result equal to or less than the specified number. A failed comparison roll will often have more severe results if the roll is failed by a wide margin (ie 2 or more points).

EXAMPLE: Auitzotl hides behind some bushes to evade a pair of pursuers, both of whom stop to look for him. Auitzotl's "Hide in cover" skill is 12, whilst his pursuers have "Spot hidden object" skills of 6 and 10 respectively. The pursuing characters must now check on the comparison chart to test for the success of their search. The first character subtracts Auitzotl's hide in cover skill of 12 from his spot hidden object skill rating of 6, giving him a total of -6. Looking at the top line of the comparison chart above to find the negative six column, we find that the first pursuer will need to roll a 3 or less.

TASK DIFFICULTY NUMBER.
Simple : 5
Average : 10
Difficult : 15
Extremely difficult : 20
Nearly impossible : 25

This number is compared defensively against the testing characteristic on the comparison chart below.

THE COMPARISON CHART

<table>
<thead>
<tr>
<th>RESULTING NUMBER (offense - defence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-9</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

Roll required on 2D6 (no or less)
on 2D6 to see his quarry. The second searcher, however, has a better chance. Subtracting the defenders skill rating of 12 from the "attackers" skill ability score of 10 gives a result of -2, which means that he must roll a 5 or less to spot Auitzotl.

**Hit Location.**
When a character is wounded, a random dice roll is used to determine which part of the character has suffered injury. For the purposes of determining hit location during combat, the humanoid body is presumed to consist of 5 basic areas: The arms (left and right), legs (left and right), chest, abdomen and head. When a hit is scored, roll a dice appropriate to the length of the weapon, and consult the chart below:

**Hit Location Dice by Weapon Length.**
- Length 0-1 =1D6
- Length 2 =1D8
- Length 3 =1D10
- Missile weapon =1D10

**Hit Location Chart.**

<table>
<thead>
<tr>
<th>DICE ROLL</th>
<th>MELEE</th>
<th>MISSILE FIRE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-2</td>
<td>HEAD</td>
<td></td>
</tr>
<tr>
<td>2-3</td>
<td>3-4</td>
<td>ARMS*</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5-6</td>
<td>CHEST</td>
<td></td>
</tr>
<tr>
<td>5-6</td>
<td>7-8</td>
<td>ABDOMEN</td>
<td></td>
</tr>
<tr>
<td>7-10</td>
<td>9-10</td>
<td>LEGS*</td>
<td></td>
</tr>
</tbody>
</table>

* Odd = left side, even = right side.

Locations which are in cover are protected by that cover against the incoming damage. Prone characters count their legs and abdomen as being in cover when fired upon from the front. Characters who are firing around a corner will have one of their arms and one of their legs covered, as well as hit locations 6 and 8 (military trained pistol shooters will normally only expose one side of the head and their shooting arm when shooting around a corner).

**SKILLS**
Skills are represented by an ability number. This ability number is the value used on the comparison chart vs the difficulty of the task whenever a character attempts to use its skill.

**Skill Ability Scores.**
A character’s ability score with any skill is determined by using the Skill Ability Chart. Cross index the character’s skill GOVERNOR with the character’s current level of training in the skill. The resulting number is the character’s skill ability score.

**Skill Governor Determination.**
A character’s GOVERNOR with any given skill is determined by taking the average of the characteristic scores of all the characteristics which govern the skill. These GOVERNING characteristics are detailed on the suggested skills chart at the back of this book. Each skill has its own governors. Where two governing characteristics are listed together in brackets, the player must choose one or the other to be a governing characteristic for the purposes of assessing the character’s ability score. Thus, if a player chooses to take Aerospace Pilot skill, the character’s skill GOVERNOR will be either the average of the character’s Manual Dexterity and Coordination, or the average of the character’s Manual Dexterity and its Intuition score.

No skill may ever exceed training level 15.

**Example of Skills In Use.**
Auitzotl’s driver has temporarily deserted him, and Auitzotl is left alone to fix his vehicle’s burnt out primary turret traverse mechanism. Auitzotl is not very good with machinery. His training level in mechanical repair is only level 6, with a governor of 13 (the average of his reason and M.dex scores). This gives Auitzotl a skill ability level of 9.

The umpire rules that the task is of difficult complexity, but since the vehicle’s A.I. computer can talk Auitzotl through the task, he reduces the difficulty level to average (difficulty number 10). Auitzotl will thus have to roll a -6 on 2D6 to successfully repair the turret motors. Since he is not very skilled in this field, the umpire might want to rule that Auitzotl has damaged the turret even worse than before should he fail his skill roll by more than 2 points.

**Gaining Skills.**
Training levels in skills are bought by expending career points. Career points may be expended to increase the character’s level of training in an individual skill. 1 career point may be traded in for 6 skill points (see the rules on purchasing skill increases), or they may be expended on purchasing Skill specialist packages.

**Skill Increases:** Career points may be broken up into 6 skill points, which may be used to purchase increased training ratings in one or more skills. The following chart shows the exchange rate for skill points to training levels:

<table>
<thead>
<tr>
<th>Training level</th>
<th>Cost per level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6</td>
<td>.5</td>
</tr>
<tr>
<td>7-15</td>
<td>1</td>
</tr>
</tbody>
</table>

Every level of training will cost skill points. As the player purchases individual training levels, the price tends to escalate.
**Characteristic increases:**
Characteristics may be trained up above their starting level, up to a maximum increase of 1 above their initial values (exception: Stamina may be raised to a maximum of 4 points above its starting value). Characteristic increases are performed by expending skill points in the system detailed immediately above, but with all costs being at twice the above stated rate.

**Skill specialist packages.**
Skill specialist packages represent the formal study of a family of job interrelated skills. As such, skill specialist packages may represent military training, university degrees, martial arts courses and command schools.

Skill specialist packages are composed of 3 skills. The first of these skills is the package's **primary skill**, and the remainder are termed **secondary skills**. The primary skill in any given package will always be at a higher level of training than the package's secondary skills.

A character's level of training/experience in any given skill specialist package is referred to as a skill **CLASS**, and is represented by the letter A, B, C or D (D being the least level of training/experience with a package, and class A being the highest level). As a character increases its class rating in a given package, it will increase its level of training in all of the skills within the package. The career points cost for purchasing various classes of skill specialist package, and the effects of the various package classes upon the character's training levels is listed below:

<table>
<thead>
<tr>
<th>Class</th>
<th>Total career points cost</th>
<th>Training level with primary skill</th>
<th>Training level with secondary skills</th>
<th>Free skill points</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>11</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>13</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>A</td>
<td>4</td>
<td>15</td>
<td>12</td>
<td>3</td>
</tr>
</tbody>
</table>

Upon purchasing a class of training/experience with a specialist skill package, the characters training levels in the package's primary and secondary skills are automatically elevated to the stated level. The "free skill points" may be added to the character's rating with any secondary skill, as long as the training level of a secondary skill is not made to exceed the training level of the primary skill.

A list of sample skill specialist packages is provided in the rules section below and overleaf, but the players and referee are free to determine their own packages by using the following guidelines:
- All packages must be formed from 3 different skills. One of these is the primary skill, and the others will be termed secondary skills.
- All of the skills in a single package must be interrelated in some way, either by the type of job they are fitted for or by being skills dealing with similar systems.

The design of "custom made" skill packages is actively encouraged as long as players and referees remember to use common sense. If someone declares that they want to get a skill package as a smuggler, they must be refused, since there is no formalised on-the-job training for such a career.
<table>
<thead>
<tr>
<th>Sample skill packages:</th>
<th>Prereqs</th>
<th>Primary skill</th>
<th>Secondary skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General packages:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>-</td>
<td>Admin</td>
<td>Computer ops, Bargain.</td>
</tr>
<tr>
<td>Advanced education*</td>
<td>-</td>
<td>1 knowledge skill</td>
<td>2 other skills as appropriate.</td>
</tr>
<tr>
<td>Aerospace aircrew</td>
<td>-</td>
<td>Computer ops</td>
<td>Zero-G movement, Electronics.</td>
</tr>
<tr>
<td>Business sales</td>
<td>-</td>
<td>Salesman</td>
<td>Bargain, Brokerage.</td>
</tr>
<tr>
<td>Diplomacy</td>
<td>S.P.I. 3.0+</td>
<td>Current affairs</td>
<td>Law, Mingle.</td>
</tr>
<tr>
<td>Martial arts</td>
<td>-</td>
<td>Stickfighting, Boxing or Wrestling</td>
<td>Stickfighting, Boxing, Wrestling or Knife</td>
</tr>
<tr>
<td>Merchant supercargo</td>
<td>-</td>
<td>Admin</td>
<td>Streetwise, Bargain.</td>
</tr>
<tr>
<td>Political studies</td>
<td>-</td>
<td>Political science</td>
<td>Socio history, Research.</td>
</tr>
</tbody>
</table>

* Advanced education is used to simulate training/education in such varied fields as the "humanities", sciences, medicine, law, art & craft, technical skills etc.

** Other civil starship skills are bought on the military chart below (ie navigator, engineer etc).

<table>
<thead>
<tr>
<th>Military packages:</th>
<th></th>
<th>Aerodyne weapons</th>
<th>Detect hidden, Mechanical repair.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace gnr/obs</td>
<td>-</td>
<td>Aerodyne weapons</td>
<td>Aerodyne weapons systems, Navigation.</td>
</tr>
<tr>
<td>Aerospace pilot</td>
<td>-</td>
<td>Aerospace pilot</td>
<td></td>
</tr>
<tr>
<td>Combat weapons</td>
<td>-</td>
<td>Longarms</td>
<td>Handguns, Coolness under fire.</td>
</tr>
<tr>
<td>Cbt vehicle driver</td>
<td>-</td>
<td>Heavy vehicle dvr</td>
<td>Navigation, Mech repair</td>
</tr>
<tr>
<td>Cbt vehicle gunner</td>
<td>-</td>
<td>Turreted main arms</td>
<td>Detect hidden, Computer ops.</td>
</tr>
<tr>
<td>Command</td>
<td>S.P.I. of 3.0+</td>
<td>The tac/strat skill appropriate to the character's speciality field or Administration</td>
<td>Coolness under fire or Assess personality, Leadership</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>Engineering</td>
<td>-</td>
<td>Systems engineer (specify type)</td>
<td>1 Technical skill, physics or higher maths</td>
</tr>
<tr>
<td>Field craft</td>
<td>-</td>
<td>Hide in cover</td>
<td>Sneak, Detect hidden object.</td>
</tr>
<tr>
<td>Field medic</td>
<td>-</td>
<td>First aid</td>
<td>Medicine, coolness under fire.</td>
</tr>
<tr>
<td>Heavy weapons</td>
<td>-</td>
<td>Grenade launcher</td>
<td>Auto G.L., Throw grenade.</td>
</tr>
<tr>
<td>Interrogation</td>
<td>-</td>
<td>Detect lie</td>
<td>Assess personality, Bargain.</td>
</tr>
<tr>
<td>Starship gunner</td>
<td>-</td>
<td>Starship weapons deployment</td>
<td>Naval deployment and small unit ground tactics</td>
</tr>
<tr>
<td>Starship Navigator</td>
<td>-</td>
<td>Jump drive nav</td>
<td>Starship navigation, computer ops.</td>
</tr>
<tr>
<td>Starship pilot</td>
<td>S.P.I. 3.5+</td>
<td>Starship pilot</td>
<td>Starship navigation, Starship weapons deployment.</td>
</tr>
<tr>
<td>Vehicle mechanic/</td>
<td>-</td>
<td>Mechanical repair</td>
<td>Electronics, Computer ops.</td>
</tr>
<tr>
<td>Engineering assistant</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PRE-GAME EXPERIENCE**

(The player character's starting skills):

The overwhelming tendency of most games is to produce "two dimensional" characters - that is, characters who are fit for only one thing in life ("Me marine, me kill"). Thus we often encounter spaceship captains who cannot drive a car, and soldiers who are no fun at parties (oh well, let's face it - most soldiers aren't any fun at parties). In ALBEDO we hope to rectify this by building a character's experience from the ground up.

Characters start the game with experience in a number of skills. A character's previous experience is divided into two stages: Basic skills and Career skills.
Basic skills:
Step 1 - Every character starts the game at training level 5 in all of the following skills:

Axe/club
Bargain
Boxing
Climbing
Coolness under fire
Detect Hidden
Detect lie
First aid
Handguns
Hide in cover
Knife
Literacy
Longarms
Sneak
Throw grenade/rock
Wrestling

Step 2 - The player must now decide on the type of background education that the character received - was the character educated through military academies, through state run institutional learning or through facilities provided by an extended clan or family?

Military background. The character receives training level 5 in political science, law and current affairs.

Institutional background. The character receives training level five in higher maths and research, and raises its literacy training level to 8.

Clan/Family background. The character receives training level socio history or current affairs, and in an art, craft or musical instrument. The character's literacy training level is raised to 8.

Step 3 - The character now receives training levels in 3 social skills and 3 movement/perception skills (free choice). Drive ground car may be chosen instead of any one of these. These skills will start the game at training level 10.

Careers.
Characters will eventually end up in a career or occupation. The careers of player characters are chosen by the player, limited only by the judgement of the umpire and the dictates of the scenario in play.

The player now receives 12 career points to spend on purchasing training and experience for the character, plus an extra career point that is to be spent only upon some sort of sporting or part time pursuit. The skills in which a character takes training must be relevant to the character's chosen profession, although a small amount of leeway will be allowed for skills declared a part of the character's hobbies or interests.

SAMPLE CAREERS.
The players are fairly free in their choices of occupations for their characters. The character's S.P.I. rating may, however, limit the types of career which may be chosen. An S.P.I. rating of 3.0 or higher will be required for most positions of authority (such as a Homeguard officer, or a policeman). Higher positions will usually require S.P.I. ratings of 3.5 or above.

MILITARY CAREERS: Military careers are usually pursued by joining the elite E.D.F. or a planetary Homeguard. Planetary militias and police forces usually have no set enlistment requirements, and are thus a refuge for those bent on a military career who do not qualify for the main service branches.

All characters who take on a military career will learn combat weapons to at least grade D. Characters who join combat oriented service branches will be expected to raise their coolness under fire skill to at least training level 8 (10 in the E.D.F.). Military characters serving in a combat arm or starships must have stamina ratings of 10+ (career points may be spent to bolster a character's stamina rating, at half the normal cost for levels 5 to 12).

Once the character settles into a service branch, it must decide on its specialty field. Such career fields include aerospace pilots and gunners, infantry specialists, field medics, combat vehicle crew, and mechanics/armourers. E.D.F. personnel may also opt to serve as starship crew, opening up such career possibilities as starship pilot, starship navigator, starship engineer, flight medic, starship gunnery tech etc.

The E.D.F. is an elite force recruited from the military establishments of all ConFed member worlds. Thus the Homeguards provide much of the basic training of the E.D.F. soldier.

Due to the variety of races, both big and small, the E.D.F. has no strict physical requirements for new recruits. The E.D.F. does however set high intellectual standards as part of its basic entry
requirements. To be accepted into the E.D.F., a character must have an S.P.I. rating of 3.0 or higher, and have an advanced education of at least class rating C (in technical, scientific or humanities fields, but not arts and crafts). The average E.D.F. soldier is thus very cerebral when compared to his Homeguard equivalent, forming the basis of their elite status. All E.D.F. characters must end up with a coolness under fire skill of at least training level 10 and a current affairs skill of at least training level 5. If necessary, a career point will have to be sacrificed to meet these requirements.

The E.D.F. does not utilise military ranks in the normal sense (there is no strict division between officers and "other ranks" in E.D.F. service). E.D.F. troops are given a command rating within their area of expertise which is based upon their specialist rating in that field. An E.D.F. soldier's authority does not extend itself outside of his or her area of situational expertise when dealing with other E.D.F. troops. Thus, although Erma Felna is a grade 3 flight officer, when involved in ground engagements she will subordinate herself to infantry specialists with a higher rating in the infantry speciality field than herself.

Specialist ratings.
An E.D.F. soldier's seniority within its rank and chosen speciality field is determined by his or her specialist rating. The requirements for the various specialist ratings are as follows:

Spec. 1: Class D rating in all skill packages relevant to the speciality field.
Spec. 2: Class C ratings in 2 relevant skill specialist fields.
Spec. 3: As for spec 2, except that the character must also have a class D rating in COMMAND.
Spec. 4: One class B rating and 1 class C rating in a skill package relevant to the character's chosen field. The character also requires a Class C rating in COMMAND.
Spec. 5: One class A rating and one class C rating in skill packages relevant to the chosen field, coupled with a Class C rating in COMMAND. Since spec 5 is only achieved through seniority, the character must roll its reason vs 15 on the comparison chart to achieve a level 5 speciality rating.

Some sample speciality fields include:

<table>
<thead>
<tr>
<th>Field</th>
<th>Relevant skill areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace gunner</td>
<td>Gunner/observer,</td>
</tr>
<tr>
<td></td>
<td>Aerospace crew</td>
</tr>
<tr>
<td>Combat vehicle crew</td>
<td>Cbt vehicle driver,</td>
</tr>
<tr>
<td></td>
<td>Cbt vehicle gunner,</td>
</tr>
<tr>
<td>Flight Engineer</td>
<td>Engineering,</td>
</tr>
<tr>
<td></td>
<td>Aerospace crew</td>
</tr>
<tr>
<td>Flight medic</td>
<td>Field medic,</td>
</tr>
<tr>
<td></td>
<td>Aerospace crew (surgery comes as a command skill, replacing the primary tactical skill)</td>
</tr>
<tr>
<td>Flight officer (TAC)</td>
<td>Aerospace pilot,</td>
</tr>
<tr>
<td></td>
<td>Aerospace crew</td>
</tr>
<tr>
<td>Flight officer (Starship)</td>
<td>Starship pilot,</td>
</tr>
<tr>
<td></td>
<td>Aerospace crew</td>
</tr>
<tr>
<td>Infantry</td>
<td>Combat arms,</td>
</tr>
<tr>
<td></td>
<td>Field craft,</td>
</tr>
<tr>
<td>Intelligence</td>
<td>Interrogation,</td>
</tr>
<tr>
<td></td>
<td>Combat weapons</td>
</tr>
<tr>
<td>Navigation</td>
<td>Navigation,</td>
</tr>
<tr>
<td></td>
<td>Aerospace crew</td>
</tr>
<tr>
<td>Technical</td>
<td>Engineering,</td>
</tr>
<tr>
<td></td>
<td>Mechanic/armourer</td>
</tr>
<tr>
<td>Weapons tech (Starship)</td>
<td>Starship gunner,</td>
</tr>
<tr>
<td></td>
<td>Aerospace crew</td>
</tr>
</tbody>
</table>

Rank.
The E.D.F. adds 5 different ranking grades to the speciality ratings listed above. A character's rank gives it authority over and above that normally conferred by its specialist rating, and dictates the
minimum number of subordinates which will normally be placed under the character's control.

While the bulk of the E.D.F. forces are graded at rank 0, greater command authority is granted to soldiers who show sufficient merit. In order to be accepted into rank gradings 1 and above, a soldier must have an S.P.I. rating of 3.5 or higher, meet the requirements of Spec. 3 or above, and have an advanced education of at least class B. If a player character meets these requirements and wishes to attain officer rank before beginning play, it must roll a reason test to achieve the next highest rank grade. A character may continue to test for promotion until a promotion roll is failed, whereupon the character's rank is set for the coming campaign.

<table>
<thead>
<tr>
<th>Rank grade</th>
<th>Title</th>
<th>Difficulty test vs?</th>
<th>Min S.P.I.</th>
<th>Command skill req</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lieutenant</td>
<td>-</td>
<td>3.5</td>
<td>D</td>
</tr>
<tr>
<td>2</td>
<td>Captain</td>
<td>12</td>
<td>3.7</td>
<td>C</td>
</tr>
<tr>
<td>3</td>
<td>Commander</td>
<td>15</td>
<td>3.8</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>Snr Commander</td>
<td>20</td>
<td>3.9</td>
<td>B</td>
</tr>
<tr>
<td>5</td>
<td>General</td>
<td>24</td>
<td>4.0</td>
<td>A</td>
</tr>
</tbody>
</table>

The minimum S.P.I requirements for rank grades 3, 4 and 5 may be waived in cases of high merit.

Titles indicating an officer's area of responsibility often supercede an individual's rank title. For instance, an independent command will normally have a Mission Commander, whose appointment makes him responsible for the mission objectives. Aboard ship, such officers might have to work hand in hand with the Ship's Captain, whose authority covers the welfare and performance of the ship. The tasks of both officers are distinct, and give each officer a clear area of responsibility and authority.

An officer's appointment will confer an additional title and a command seniority. For example, a character who is a Commander (rank grade 3) in TAC aerospace command might be given an appointment as a Flight commander. Immediately above the character in the chain of command is the Squadron commander, who is also rank grade 3, but nevertheless holds a more senior position.

**Command authority.**

A character's tactical command authority represents its qualifications to make tactical decisions for any branch of a military service when not controlling E.D.F. troops. The tactical command authority of E.D.F. soldiers over their comrades in the Homeguard or planetary militias is level 1 higher than the equivalent officer grade amongst Homeguard troops. This command authority level will be rated a further level higher if the E.D.F. soldier has a higher leadership class rating than is required for its current rank level. The exception to the above are E.D.F. grade 0 ranks of speciality rating 2 or less, whose command authority is equivalent to O.R. grades 3 and 4 on the Homeguard O.R.'s table.

In emergency situations, E.D.F. officers of ranks 2 and above are cleared to make short term strategic decisions in their own area of expertese, but only in the absence of qualified strategic planning staff.

**ConFed Homeguard forces.**

Composed only of planetary defence troops, Homeguard forces are equipped with a variety of non standard weapons systems due to the varying technologies of their home worlds. On the inner worlds, Home-guard forces will be equipped almost identically to E.D.F. planetary command troops. Colonial Homeguards can be fierce fighters with very high initiative, but some are wary of being used as colonial shock troops (read also "cannon fodder") in a war not of their making.

The Homeguard are still fairly choosy about their recruits, and will not accept poor grade recruits (S.P.I. of 2.5 or less). Only "home grown" militia units or reserve police/security units have any place for recruits with an S.P.I. of 2.5.

**Starting ranks for Homeguard characters:**

Characters with an advanced education (in humanities, scientific or technical fields) of class C or higher may decide to start the game as a serving officer in a Homeguard force. Uneducated characters with the desire to start the game as serving soldiers will start as "other ranks", and their rank is determined on the O.R.'s table.
Commissioned Officer ranks.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Planetary forces</th>
<th>Pilot officer ranks</th>
<th>Reason roll vs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Marshal</td>
<td>Wing Commander</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>General</td>
<td>Squadron Commander</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Lt General</td>
<td>Flight Commander</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>Brigade Commander</td>
<td>Flight Officer</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Colonel</td>
<td>Pilot Officer</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Lt Colonel</td>
<td>Pilot</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Major</td>
<td>Sergeant Pilot</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Captain</td>
<td>Snr Pilot</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Lieutenant</td>
<td>Pilot</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>Cadet</td>
<td>Pilot cadet</td>
<td>-</td>
</tr>
</tbody>
</table>

Other ranks.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Planetary forces</th>
<th>Technical</th>
<th>Observer</th>
<th>Gunners</th>
<th>Reason test vs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Warrant Off</td>
<td>Tech Chief</td>
<td>-</td>
<td>-</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Ante Warrant</td>
<td>Snr Tech</td>
<td>-</td>
<td>Bombadier</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Snr Sergeant</td>
<td>Technician</td>
<td>Sgt Observer</td>
<td>Sgt Gunner</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Sergeant</td>
<td>Snr Observer</td>
<td>Observer</td>
<td>Gunner</td>
<td>8</td>
</tr>
<tr>
<td>1</td>
<td>Monitor</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Characters begin their careers at the bottom grading on the rank chart. As their career progresses, they will gain higher ranks. To determine the final rank of the character, roll a reason test for the character vs the number listed against the next highest rank on the chart. If the test was successful, then increase the character's rank to the next highest rank, and roll again. This process will continue until the character fails a test, whereupon the character's starting rank is set, and the game begins.

"ADMIN" CAREERS: Professional careers in "admin" involve everything from sales managers to lawyers and doctors. It is a blanket category for a huge variety of jobs, all of which involve a fair degree of skill or reasoning power. Characters with an S.P.I. rating of 3.0 or higher might even wish to enter into the ConFed's diplomatic service.

Diplomatic careers: Like the E.D.F., the diplomatic service places high emphasis on personal responsibility (implying both intelligence and good education), and clarity of thought under stress. Enlistees into the diplomatic corps are thus required to have an S.P.I. index of 3.0 or higher, and an advanced education of at least level C. All recruits will immediately expend 1 career point to raise their coolness under fire skill by 5 training levels, and their research skill by 5 levels. Skill specialist packages relevant to the diplomatic service are

ADMINISTRATION, POLITICAL STUDIES and DIPLOMACY.

Ranks in the diplomatic service are obtained very much like those in the military services listed above. Each rank has a set of minimum skill requirements for the three basic specialist training packages relevant to the diplomatic service. If a character meets the requirements for a rank, it may roll its reason vs the difficulty number listed next to the rank. A successful roll elevates the character to the indicated rank. The player character may continue to climb the rank structure as long as it is able to meet the skill requirements and make the requisite rolls. Once a promotion roll is failed, the character has set its rank as it will stand at the commencement of the campaign.

Rank grade: 1-4
Title: Diplomatic aide.
Difficulty number: -
Requirements: 1 skill speciality package at level C, and the other 2 at level D.
Role: Diplomatic aides perform much of the elemental hack work of a well staffed diplomatic post, assembling data for collation, preparing reports for presentation to more highly skilled staff, and performing routine monitoring of current affairs, media and political movements.
Rank grade: 5-7
Title: Assistant secretary.
Difficulty number: 12
Requirements: S.P.I. of 3.5 or higher. 1 skill specialty package at level B, and 1 at level C.
Role: Assistant secretaries are research/administrative aides to a ConFed secretary. As such, they organise and run many of the functions of a ConFed diplomatic mission, relieving the secretary of the burden of surveillance and basic data collation. Assistant secretaries can have the ability to assume a degree of civil authority in emergency situations.

OTHER OPTIONS: A number of independent careers may be entered into by characters. "Merchant marine" (private enterprise aerospace/starship oriented careers) and professional craftsmen abound in both the inner ConFed and the outworlds. The presence of a state provided spending allowance on the worlds of the inner ConFed allows characters hailing from such worlds to be professional students or dabbiers in art and crafts. All of these miscellaneous careers should only be taken with the agreement of the umpire, who will discuss with the player the skills which the character might accrue.

Career example: Aultzotl can qualify as a member of the E.D.F., and therefore elects to be trained as an officer in the E.D.F. ground forces combat vehicle branch. He consults the military careers information for the various pre-requisites for the E.D.F. combat vehicle crewman category, and then selects his training packages:

- Advanced education (socio-political studies) B
- Command B
- Combat vehicle gunner C
- Combat vehicle driver C
- Combat weapons C
- Martial arts D

These packages cost a total of 13 career points.

Types of skill:
Types of skill are almost innumerable. The requirements for a usable skill are that the skill be relevant to a particular task or knowledge type, and that the skill is specific as to the tool use and techniques involved in its use.

Thus, a skill in "guns" is not allowed, as the tool specified is further broken up into several sub-classes of use (see WEAPONS). A viable skill would therefore be "longarms". The character is not required to specify a precise make and model of rifle, and so this skill works equally well with both Sporting rifles and Assault carbines.

The suggested skill chart lists a number of the more common or more useful skills. It is deficient in the areas of academic disciplines. Players and referees should feel free to create new skills in the areas or arts and social sciences at need.
Suggested skills charts:

SUGGESTED SKILLS: Governing characteristics

SOCIAL SKILLS: Art
Assess personality
Bargain
Current affairs
Dancing
Debate
Detect lie
Gambling
Leadership
Literacy
Mingle
Public speaking
Musician
Repartee
Scrounge
Snitch
Spin yarn

Social skills are the skills of personal interaction, communication and expression. Characters who have a skill in Art must specify which specific type (eg drawing, poetry etc). Assess personality skill is used when a character wishes to analyse the drives and motivations (ie dispositions, ties, antipathies and drive) of its associates. Leadership skill is used to smooth out antipathies between subordinates, and to create ties between a leader and his or her followers. Literacy is the skill of clear, concise, creative written expression. Mingle skill measures the character’s ability to make a favourable impression at genteel social functions. Snitch skill is used to represent a character’s ability to eavesdrop, tune in to rumors and spy. Spin yarn represents the character’s ability to tell stories and to maintain ongoing lies in a convincing fashion. There is no “fast-talk” skill. If a character is trying to pull a fast one, then the umpire must be convinced of the plausibility of the character’s story.

MOVEMENT AND PERCEPTION SKILLS Governing characteristics

Climbing
Coolness under fire
Detect hidden object
Hide in cover
Jumping
Sneak
Swimming
Zero-G-movement

Coolness under fire skill is used to represent the character’s calmness in dangerous situations. As such, it is used as a measure of the character’s susceptibility to hesitation and panic. Characters with huge frames should normally receive an adverse DRM of +1 when attempting to use Hide in cover skill (unless circumstances dictate otherwise). Sneak skill is the measure of a character’s ability to move silently.
Boxing skill covers the martial art of foot and fist boxing, rifles, assault rifles and SMGs. Wrestling skill covers the character's ability to throw opponents, grapple, perform limb "locks" and breakfalls.

"Longarms" skill covers the use of all machine guns, "Longarms" skill covers the use of all machine guns, light automatics and heavy machine guns. "Longarms" skill covers the use of all machine guns, light automatics and heavy machine guns.

Tool using skills are skills which are tied in to the use of a particular body of machinery. They therefore include piloting and driving skills, but not the more esoteric skills such as starship weapons deployment. Characters who choose to take a skill in operating heavy machinery must specify what type of machinery it is, forklifts, earthmoving machines, jaws of life or whatever.

Administration skill measures the character's ability to run a bureaucratic organisation. First aid skill is used in all attempts at shock recovery, wound staunching and bone splinting. Medical skill is used as a modifier in long term recovery of patients, diagnosis of ailment, treatment of infection and disease etc. Navigation skill is the ability to properly use navigation tools such as map references, prismatic compasses and inertial locators to avoid getting lost, or to find oneself if you are lost. Political science skill is used to analyse the interaction between political groups and to assess their interrelationships. Socio-history uses a knowledge of
past events and sociological science to allow a character to identify and examine social pressures, and predict the future trends which might result. A Systems Engineer has the ability to design or analyse the damage done (and therefore the repairs needed) to systems which fall within the engineer's area of expertese. Sample areas of systems engineering expertese include Chemical engineering, Computer engineering, Mechanical engineering, Fusion drive engineering, Jump drive engineering, Structural engineering and Electronics engineering.

TACTICAL & STRATEGIC SKILLS Governing Characteristics

Spatial tactics
- Starship weapons
  systems deployment Reas, Intu
- Naval deployment Reas

Small unit tactics
- Air Reas, Intu
- Ground Reas, Intu

Strategic skills
- Strategic deployment Reas, Intu
- Logistics Reas

LEARNING NEW SKILLS.

Should a character have both the opportunity and desire to learn a new skill, it may check to see whether it gains any training level increase from its efforts. A training level increase roll may only be made once the required study time has been spent on trying to improve the desired skill. The minimum time required to improve or learn a skill is 2 weeks of intensive study, which will gain the character one skill point in the field under study.

Part time study is performed at twice the above cost in time.

When a character announces that it wishes to attempt intensive study, it must roll drive vs 10 in order to do so, otherwise it does not have the self discipline to maintain the effort required and reverts to part time study.

Characters who successfully use a skill under stress conditions in an adventure may gain experience in the skill. Roll the character's Reason vs the current level of training which the character has in the skill. A successful roll will raise the skill's training level by 1.

Glossary of abbreviations.

A.C.V. Autonomous Combat Vehicle.
A.I. Artificial Intelligence.
C.C.D. Charged coupled device.
C.F.C. ConFed Central.
ConFed Interstellar Confederation.
C.U.F. Coolness under fire.
"D" Dice.
D.R.M. Dice roll modifier.
Dve. Drive.
E.M. Electro-magnetic.
I.L.R. Independent Lapine Republic.
I.D.F. Indirect fire.
Intu. Intuition.
L.R. Long ranged.
"N" Number.
N.B.C. Nuclear/Biological/Chemical.
Neg Negligible.
N.P.C. Non player character.
P.C. Player character
Reas. Reason.
S.P.I. Socio/Psych/Intel rating.
S.R. Short ranged.
Sta. Stamina.
Stab. Stability.
Str. Strength.
**ALBEDO Character Sheet**

**NAME:**

**CRITTER TYPE:**

**FARE SIZE:**

**Characteristics**

<table>
<thead>
<tr>
<th>STRENGTH</th>
<th>NORMAL</th>
<th>WOUND DAM's</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAMINA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. DEXTERITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO-ORDINATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REASON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTUITION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRIVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STABILITY</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Max. recall:**

Stamina x 1/2

**Actions per round:**

**Initiative dice:**

**notes**

---

**Fatigue track**

<table>
<thead>
<tr>
<th>Recoverable</th>
<th>Non-recoverable</th>
<th>Fatigue</th>
<th>DRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue</td>
<td>Fatigue</td>
<td>total</td>
<td></td>
</tr>
</tbody>
</table>

Divide the character's total fatigue by half of its STAMINA score. The result equals the character's fatigue DRM. A DRM of 4 means that the character is exhausted. A DRM of 5 renders the character unconscious. When a character reaches a fatigue DRM of 6, it is DEAD.

**Basic weight**

**bearing capacity**

**(str + 1)**

**Current burden level**

**Current encumbrance**

**CHARACTER PSYCH DOSSIER:**

<table>
<thead>
<tr>
<th>TIES:</th>
<th>ANTIPATHIES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Experience (+)</td>
</tr>
</tbody>
</table>

*Governor = current self image score*

CHARACTER SHEET MASTER (copy for player use)
<table>
<thead>
<tr>
<th>Character Skills</th>
<th>Governing characteristics</th>
<th>Total governor</th>
<th>Training level</th>
<th>Ability score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movement and Perception Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weapon Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tactical &amp; Strategic Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool Using Skills:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Missile weapon record slip

<table>
<thead>
<tr>
<th>Weapon type:</th>
<th>Weight:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>Short</td>
</tr>
<tr>
<td>Penetration</td>
<td></td>
</tr>
<tr>
<td>Damage</td>
<td></td>
</tr>
<tr>
<td>Handiness:</td>
<td>Magazine capacity:</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>

### Melee weapon record slip

<table>
<thead>
<tr>
<th>Weapon type:</th>
<th>Weight:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length:</td>
<td></td>
</tr>
<tr>
<td>Damage:</td>
<td></td>
</tr>
<tr>
<td>Penetration:</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>

### Armour record slip

<table>
<thead>
<tr>
<th>Type:</th>
<th>Weight:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encumbrance:</td>
<td></td>
</tr>
<tr>
<td>Locations covered:</td>
<td></td>
</tr>
<tr>
<td>Penetration resistance:</td>
<td></td>
</tr>
<tr>
<td>Impact distribution:</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>

### Equipment record slip

<table>
<thead>
<tr>
<th>Type:</th>
<th>Weight:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>

(SHEET MASTER (copy for player use))
BOOK 2: EQUIPMENT DESCRIPTION
Some extra thoughts on how things work. The common use of computers and a wide range of sensing systems can make it difficult, in many cases, to do any covert activity without someone or something watching. As previously mentioned, population monitoring is not uncommon, especially in the inner systems. Such is normally done by computers who politely ignore anything other than what they're supposed to look out for. They are, in turn, managed by elected personnel who ultimately have to answer to electric plebicites. (Most of the worlds are vigorously democratic, see the intro comments in book three for more.)

Computer supported sensing can largely dictate the flow of action in many situations. Are there "bugs"? Is the computer terminal watching you? Who can see you from orbit? Then, on the other hand, how snoopy can you be? And such sensing can do more than merely see end heer. Visual information includes the full optical spectrum, from subtle changes in surface temperature with an individual's change in mood, to rates of ultra violet absorption in vegetation over valuable mineral deposits. Sonic analysis can be of microquaver rates in the answers to carefully designed questions or of the structural integrity of a ship's hull.

The trick to all this, is in knowing what and when to ask your handy-dandy hand terminal. Not that it has all these capabilities in itself, but it can link-up with other processors, with access to the appropriate programs and sensors which can help.

In the end, the player will have to not only worry about what kind of hardware (s)he has to carry, but also, what level of access end support (s)he can expect from the local computer network (and some careful pre-play planning on the part of both the players and referees as to how much knowledge of end access to the characters should have.) Such fun.

ILR 6x6 LIGHT ARMORED SCOUT VEHICLE

1. Fixed periscopes with laser range finders and sighting overlays.
2. 24 mm caseless autocannon with electric action and feed.
3. CCD/fibre-optic sight.
4. Power ammunition feed.
5. Side-stick controls, selectable for weapon aiming or vehicle driving.
7. 24mm ammunition magazine.
8. Computer sub-group.
10. 360° turnable CCD periscopes.
11. Fixed periscopes with laser range finders and sighting overlays.
12. Controls and circuit breaker panel.
13. Communications and computers.
15. Driver's seat.
16. Side-stick controls, selectable for vehicle driving or weapons aiming.
17. Foot pedal controls, selectable for steering or accelerating/breaking.
18. Computer-controlled independent hydropneumatic suspension and six-wheel steering
19. Electric hub motor/break, all six wheels.
20. Foem filled, puncture-proof tires.
22. 24mm ammunition magazine automated loader.
23. Optional compartment bleed door.
24. Rear entry door.
25. Thermal/electric converters.
26. Air cooled generator.
27. Turbine.
30. Foldable passenger jump seat.
31. Power ammunition feed.
32. 8mm ammunition boxes.
33. 8mm caseless machine gun, electric action and feed.
34. Foldable flat screen display.
35. 360° turnable CCD periscope.
EQUIPMENT
As an alternative to preparing a written list of the equipment carried by a character, equipment can be represented by a card or slip of paper upon which the item's name, weight and any relevant information is recorded. Bags, pouches and containers are represented by labelled envelopes, in which equipment slips are placed. Worn or carried equipment is placed in full view of the player for convenience.

This system allows an amazing degree of realism in play. Unlike equipment lists, the slip system creates a situation where the player no longer has access to a detailed inventory of his entire worldly possessions at a glance. You will find characters suddenly running out of ammunition, or confused searches in the line of "well someone must have the bloody wrench!"

Different sized containers may hold a variety of different items. Body armours and webbing belts will be fitted with a number of "velcro'ed" utility pouches, so allow a considerable amount of leeway for pocket and pouch configuration (within reason). Too many containers can be very confusing, so be warned!

With the equipment card system in mind, one suggestion for play might be for the bulk of a character's money to be held in an account by the bank. The Character is given a credit card as one of its items of equipment, and it may draw on its money, perform a computer transaction or ask an automated teller for an account balance at any time that the opportunity presents itself, but the player's account balance is only constantly available to the umpire.

Sources of equipment.
In the inner ConFed, most individuals have a state provided allowance. Individuals who desire additional income can engage in "capitalistic" businesses or work for the state in service or administration. Individuals can petition the state for temporary access to costly goods and services for the good of the state or against future work credit. A citizen's basic allowance includes basic housing, food, medical support, primary and secondary education, and reasonable access to computer systems and information. The outer ConFed worlds and the I.L.R. are far more "capitalistic", and thus most of the abovementioned services will have to be paid for through an earned income or bank loans.

The standard prices given below are for equipment produced in state factories. While state produced tools and equipment are practical and efficient, they are in no way "jazzy". Privately produced equipment may be of better or worse quality than state supplied models, and tends to vary widely in price.

Military expeditions will normally have an "on hand" manufacturing capability which will be used to make equipment and weapons at need. While minor tools and equipment can be cobbled together in the workshops on most starships, the factories aboard VCLSV's are capable of mass producing very large and complex items indeed. Thus, the equipment listed below is often subject to a variety of local modifications and variants, and some of the equipment performances listed below could be modified in various ways given the correct resources, knowledge and skill.

STARTING EQUIPMENT:
A starting character could be expected to begin the game with 1D3 sets of clothes (which may be chosen from street, outdoor and work clothes) a hand computer and 1D100 x 20 credits. The player character will have miscellaneous equipment suitable for the scenario in play, at the discretion of the umpire.
ARMOUR:

Body armour is common issue to combat troops, police and air crew. Military body armours are not available to the public, but a number of items of protective clothing are produced for the consumer public.

All body armours are flexible, since rigid body armour has proved to be prohibitively cumbersome, and is completely unsuited for wear by combat personnel. Flexible body armour has a worn life of about five years, after which it must be discarded due to the deterioration of the armour material (-1DRM to penetrate with any firearm).

Protective clothing.

<table>
<thead>
<tr>
<th>Armour type:</th>
<th>Ballistic jacket/trousers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration resistance:</td>
<td>1</td>
</tr>
<tr>
<td>Impact distribution:</td>
<td>1</td>
</tr>
<tr>
<td>Weight:</td>
<td>1</td>
</tr>
<tr>
<td>Encumbrance:</td>
<td>0</td>
</tr>
<tr>
<td>Cost:</td>
<td>100-200</td>
</tr>
<tr>
<td>Coverage:</td>
<td>Chest, abdomen, arms, legs.</td>
</tr>
<tr>
<td>Description:</td>
<td>A frequent item of wear amongst persons who require a degree of protection against punctures, cuts and abrasions. Ballistic cloth protective clothes are a common item of wear amongst military personnel who expect to encounter combat. Ballistic clothing of this sort is identical in cut to normal fatigues.</td>
</tr>
</tbody>
</table>

Ballistic clothing provides a degree of protection from heat and fire. Protective coveralls will have a 50% chance of preventing the first burn result in each hit location when attacked by intense heat (eg. from a brewed-up vehicle or burning house).
Body armour.

**Armour type: Ballistic vest**

**Penetration resistance:** 5  
**Impact distribution:** 2  
**Weight:** 2 (Light, Average or Solid framed characters);  
1.5 (Small frame);  
2.25 (Huge frame).  
**Encumbrance:** 0  
**Cost:** 150-300  
**Coverage:** Chest, abdomen, arms, legs, neck  
**Description:** A thinner version of Flak armour, ballistic vests are designed to offer protection against fragments and low velocity splinters, but are not intended as bullet proof protection. Ballistic vests have, however, proved capable of resisting low energy cross section ammunition (regular “ball” pistol ammunition) and I.L.R. 6mm pistol rounds. Ballistic vests lack the impact absorbing platelets and padding of full flack armour.

Ballistic vests will often be found being worn by logistics vehicle crews, pilots of non combat military aircraft and the like. Many police and security men might also wear light ballistic armour rather than the more cumbersome military suits.

**Armour type: Flak armour**

**Penetration resistance:** 8  
**Impact distribution:** 3  
**Weight:** 3.5 (Light, Average or Solid framed characters);  
3 (Small frame);  
4.25 (Huge frame).  
**Encumbrance:** 1  
**Cost:** 300-400  
**Coverage:** Chest, abdomen, neck  
**Description:** The most common form of body armour amongst ConFed troops, flak armour is an armoured body jacket formed from monomolecular laminate tiles sandwiched between layers of exotic ballistic fabrics. Flak armour is not made to cover the wearer’s limbs, as this would be prohibitively cumbersome, but variants made on some worlds do have flaps which cover the upper arm. Flak armour is the standard armour of high tech combat infantry units, combat aircrew and combat ground vehicle crew.

Flak armour has adjustable side panels which allows a suit to fit a great variety of body shapes.

**Armour type: I.L.R. Ballistic armour**

**Penetration resistance:** 4  
**Impact distribution:** 3  
**Weight:** 3  
**Encumbrance:** 1  
**Cost:** 300-400  
**Coverage:** Chest, abdomen, arms, legs, neck  
**Description:** Unlike the ConFed, the Independent Lapine Republic prefers to give its troops a small measure of armoured protection over the largest possible area of the body. Thus Republican combat troops will normally wear a set of overalls fashioned from padded ballistic material. Plate inserts may be added to cover the frontal chest and abdomen, raising the armoured protection in these areas to 7 penetration resistance and 4 impact distribution, at a cost of raising the suit’s encumbrance to 2 and its weight to 4.5 kilos. Like E.D.F. flack armour, an I.L.R. ballistic armour’s collar does not normally protect the wearer in the front.

**Armour type: Battle helmet**

**Penetration resistance:** 8  
**Impact distribution:** 2  
**Weight:** .75  
**Encumbrance:** 0  
**Cost:** 100  
**Coverage:** Skull. The helmet will protect the wearer’s upper/lower face from the sides and rear.  
**Description:** A light monomolecular laminate helmet. Most military helmets are open faced, but can be fitted with a visor which offers some small arms/splinter protection to the upper face (pen res 2, impact dist 3), at a cost of reducing the wearer’s intuition by 1. Most battle helmets come equipped with an integral short range communicator.

**BAGS AND CONTAINERS:**

In a game which uses cards to represent equipment, containers can become quite important. Use appropriately marked envelopes to represent "velcro'ed" pouches, bags and containers, and check carefully on the amount of equipment which players try to store in them.

The E.D.F. has a standard baggage allowance of 16 kg’s, including kit (not including vacc suits!). Umpires should keep a careful track of baggage weights and volumes.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST</th>
<th>WEIGHT</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backpack, simple</td>
<td>20-50</td>
<td>1/2kg</td>
<td></td>
</tr>
<tr>
<td>Backpack, hiking</td>
<td>50-100</td>
<td>1/2kg</td>
<td>1.</td>
</tr>
<tr>
<td>Briefcase</td>
<td>100-200</td>
<td>1kg</td>
<td></td>
</tr>
<tr>
<td>Canteen</td>
<td>10-15</td>
<td>1kg (full)</td>
<td></td>
</tr>
<tr>
<td>Duffle bag</td>
<td>10-20</td>
<td>1/4kg</td>
<td></td>
</tr>
<tr>
<td>Handbag</td>
<td>50-100</td>
<td>neg</td>
<td></td>
</tr>
<tr>
<td>Jerry-can</td>
<td>20-50</td>
<td>2kg</td>
<td>3.</td>
</tr>
<tr>
<td>Magazine pouch</td>
<td>2-5</td>
<td>neg</td>
<td>4.</td>
</tr>
<tr>
<td>Pocket</td>
<td>-</td>
<td>-</td>
<td>5.</td>
</tr>
<tr>
<td>Pouch</td>
<td>2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Purse/wallet</td>
<td>20-100</td>
<td>neg</td>
<td></td>
</tr>
<tr>
<td>Suitcase</td>
<td>75-150</td>
<td>1kg</td>
<td></td>
</tr>
</tbody>
</table>

1. 2 encumbrance when carried.
2. Holds 1 liter.
3. Holds 20 liters.
4. Holds a max of 2 x 20 md magazines. Magazine pouches are usually "velcro'ed" on to a suit of body armour or combat fatigues.
5. Pouches of all sorts of sizes are commonly "velcro'ed" onto clothing.

**CLOTHING:**

Even though most critters come equipped with fur coats, clothing is still a necessity for most mammals due to the need for pockets, protection or simply because of nudity taboos (although there are a few worlds which are fairly liberal on this point). The exception to the above are avian characters, who will normally only wear decorative articles/rank badges and pouches, having neither the need nor the desire to wear clothes.

Clothing is bought as "outfits", comprising a full set of clothes, footwear, and a couple of changes of shirt and underwear. A full set of clothes weighs effectively nothing when worn, but masses 2 to 3 kilos when packed.

**CLOTHING:**

<table>
<thead>
<tr>
<th>OUTFIT</th>
<th>COST</th>
<th>ENCUMBRANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal clothes</td>
<td>300-1000</td>
<td>2</td>
</tr>
<tr>
<td>Business clothes</td>
<td>200-500</td>
<td>1</td>
</tr>
<tr>
<td>Street clothes</td>
<td>120-200</td>
<td></td>
</tr>
<tr>
<td>Work clothes</td>
<td>100-160</td>
<td></td>
</tr>
<tr>
<td>Cold weather</td>
<td>200-300</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition to the above outfits, characters might wish to purchase an overcoat, cloak or over jacket. These items may be had for between 50 and 150 credits, and weigh between 1 to 3 kilogram.

**Clothing styles.**

The illustrations throughout the rules give a pretty good indication of the current fashions in ALBEDO. The most important note on clothes would be that many styles use velcro strips to allow them to conform to a variety of different body shapes. These adjustments are usually made on the garment's side panels to avoid muddling the lines of the garment.

Jewellery confines itself to fairly broad pieces which will not be concealed by the fur. Neck bands and bracelets are thus more likely than delicate chains or rings.
E.D.F. Uniform.

A brief description of the uniforms and equipment of the ConFed E.D.F. is now probably in order. We will divide E.D.F. uniforms into three sections - Combat uniform, Starship crew combat uniform and service dress.

- Battle dress: Green or camouflaged protective coveralls and flak armour worn over a vacc suit liner (blue). Gloves, boots and personal weapons complete the picture. All E.D.F. troops who are expected to come near a fire zone will wear head protection.

Flak armours and fatigue suits are equipped with "velcro" tabs to allow the securing of equipment pouches to the soldier. A medical status display is always affixed to the armour's left chest. The infantry soldier will wear a battle helmet equipped with a short range comm. Officers and AFV crews will normally have a vacc suit helmet (lacking the visor unit) and L.R. Comm packet for air liaison and command co-ordination. Aerodyne crews will have full vacc suit helmets (visor unit included) and L.R. comm packets.

- Starship crew combat uniform: Ship uniforms consist of the usual protective coveralls worn over the ubiquitous vacc suit liner. Starship crew fatigues are normally well covered in velcro patches to facilitate movement in free-fall. Crew on combat alert will don vacc suit helmets and flak armour.

- Service dress: Neat, high collared adaptable jackets worn with trousers and forage cap are the normal service wear of E.D.F. personnel (green for planetary forces, blue for aerospace forces). More elaborate formal mess gear or full dress uniform are available, and would be worn at special functions or full dress parades.

Homeguard uniforms vary greatly from planet to planet, although most planetary forces will use body armour and helmets copied from the E.D.F. model. Uniform clothing is not always based on E.D.F. patterns, and headgear in particular tends to vary widely from planet to planet. Berets, kepis, peaked caps and glengarries have all found favour with various formations.

COMPUTERS:

Computers are a very common tool in ALBEDO's technic society. An individual's hand computer will serve as his newspaper, receive his mail and perform a variety of other handy functions by remote linking into net or mainframe sources. Most bulk data is now stored on hi-density "laser disk" (storing the equivalent of perhaps a million pages of written text), and most computer memories are non volatile (ie they retain their current memory when switched off). Computers will accept verbal or keyboard input.

<table>
<thead>
<tr>
<th>Computer system type</th>
<th>Cost</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand computer</td>
<td>100</td>
<td>neg</td>
</tr>
<tr>
<td>Portable computer</td>
<td>300</td>
<td>.25</td>
</tr>
<tr>
<td>Home computer</td>
<td>500-800</td>
<td>1</td>
</tr>
<tr>
<td>Mini processor</td>
<td>5000</td>
<td>5</td>
</tr>
<tr>
<td>Processor core</td>
<td>10,000</td>
<td>6</td>
</tr>
<tr>
<td>A.I. core</td>
<td>50,000 +</td>
<td>8</td>
</tr>
<tr>
<td>Bulk data storage disk</td>
<td>5,000</td>
<td>2</td>
</tr>
<tr>
<td>Database package</td>
<td>20,000 +</td>
<td>5</td>
</tr>
<tr>
<td>Major system interface</td>
<td>10,000</td>
<td>2</td>
</tr>
</tbody>
</table>
Large computers and artificial intelligences are built up in kit form, with a core being linked into databases and then mated to the systems which it is supposed to monitor.

**FOOD, DRINK AND LODGING:**
In an endeavour to encourage realistic play, it is important that the umpire does not forget that all characters must eat, drink, and have somewhere to stay. While the "socialist" governments on the ConFed's older central systems provide their citizens with basic housing and food (which includes rent and utilities), other environments may force characters to expend money to provide themselves with these assets. Depending on the quality, food and housing in the outworlds can be quite pricey. The food and drink section is also useful when someone decides to carouse or to take a client out to dinner. Remember that more money must be spent if the meal or lodgings are to be of high quality.

**FOOD AND DRINK**

<table>
<thead>
<tr>
<th></th>
<th>WEIGHT</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Weeks camping rations</td>
<td>5kg</td>
<td>30-50</td>
</tr>
<tr>
<td>1 Weeks concentrated rations</td>
<td>2.5kg</td>
<td>70</td>
</tr>
<tr>
<td>1 weeks groceries</td>
<td>10kg</td>
<td>30-40</td>
</tr>
<tr>
<td>Take away food, snack</td>
<td>-</td>
<td>2-5</td>
</tr>
<tr>
<td>Take away food, meal</td>
<td>-</td>
<td>5-7</td>
</tr>
<tr>
<td>Restaurant meal</td>
<td>-</td>
<td>8-25</td>
</tr>
<tr>
<td>Catering for a party</td>
<td>30kg</td>
<td>200-300</td>
</tr>
</tbody>
</table>

Military "survival" rations are available at a cost of 6 credits for a packet designed to support one being for 1 day. These "iron rations" weigh .2 kilos, and consist of a selection of nutritional bars. Their taste leaves much to be desired, and they fail to properly create the illusion of being "full". On the third consecutive day of living on survival rations, penalize characters with the loss of 1 non recoverable fatigue point (which will disappear as soon as the character eats proper food).

**LODGING**

<table>
<thead>
<tr>
<th></th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Person tent</td>
<td>30-40, Weighs 3/4 kg</td>
</tr>
<tr>
<td>2 Person tent</td>
<td>40-50, Weighs 1 kg</td>
</tr>
<tr>
<td>3 Person tent</td>
<td>50-70, Weighs 1.5 kg</td>
</tr>
<tr>
<td>1 night at a travellers hotel</td>
<td>20-50</td>
</tr>
<tr>
<td>Rented flat or house, per month</td>
<td>350-450</td>
</tr>
</tbody>
</table>

**HOME GOODS:**
Household goods are essential creature comforts for any character. Entertaining a client in a bare room, or living in a bare apartment can be both uncomfortable and embarrassing. State provided housing and military quarters will usually come equipped with basic home goods.

**ITEM**

<table>
<thead>
<tr>
<th></th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor appliance (food processor, ghetto blaster etc)</td>
<td>50-200</td>
</tr>
<tr>
<td>Casual furniture (bean bags etc)</td>
<td>c.50</td>
</tr>
<tr>
<td>Simple furniture (utility desk etc)</td>
<td>c.100</td>
</tr>
<tr>
<td>Major items of furniture (stereo, lounge chairs, beds etc)</td>
<td>300-1000</td>
</tr>
</tbody>
</table>

Furniture tends to run towards fairly clean, functional designs.
HOSTILE ENVIRONMENT EQUIPMENT:

Military vacc suit helmet.
Penetration resistance:
Helmet = 8 (Skull).
Visor unit = 2 (upper face), 6 (lower face)
Impact distribution: 3
Weight: 1.2 (.9 kilos with visor unit removed but comm gear retained)
Cost: 300 + cost of comm package
Coverage: Skull. Visor unit covers face.
Encumbrance: 1 while visor is attached.

The vacc suit helmet is a sturdy and flexible piece of equipment with armoured protection equal to battle helmet standards. The basic vacc suit helmet is a three piece unit consisting of a fairly hemispherical open faced helmet, a separate visor/faceplate unit and a communications/life support package. Vacc suit helmets are always worn with a helmet liner, which keeps the wearer's earphones and hair in place. The basic helmet unit is often worn by itself in pressurized environments, and is common wear for E.D.F. officers. Attached to the helmet is an integral visor guard, which may be slipped down to cover the faceplate in case of flashes or abrasive particles (pen. res. of 4, but the wearer's intuition score and spot hidden skills are penalized by a DRM of 2). The helmet has integral S.R. communications gear.

The faceplate is a separate unit which may be fitted onto the basic helmet, allowing the helmet to be fully sealed when linked to a vacc suit or vacc suit liner. At the back of the helmet's skull is an exterior communications/life support unit. These come in a number of configurations, which include the following:

- L.R. Comm: A multi-channeled air/ground military communicator. L.R. Comm packs are common wear for combat aerodyne crew and infantry officers, who often have need of air liaison equipment. (Cost = 400 credits)

- Life support Monitor: The standard packet for vacuum wear. A life support monitor provides the helmet with short range radio and laser communications equipment, and it will monitor a vacc suit's internal/external environment and keep the wearer informed (via a head up display) of any losses of pressure, undesirable gases or similar mishaps. (Cost = 500 credits)

Civilian vacc suit helmets.
Civilian versions of vacc suit helmets are one piece bubble helmets designed to screw into the neck ring of a civil vacc suit. Bubble helmets are encumbrance 1, have a penetration resistance of 6 and cost 300 credits. They normally come equipped with short range comms.

Vacc suit liner.
Cost: 300
Weight: neg
Encumbrance: 0
A tight, flexible body sheath designed to afford the wearer a measure of protection from a vacuum. When accompanied with a vacc suit helmet, gloves and boots, vacc suit liners will protect the wearer from vacuum exposure for a limited amount of time. After 30 minutes of exposure, characters will start to suffer discomfort from their unsupported internal organs, which causes all fatigue losses from movement to be doubled.

Torso supporter
Pen res: 1
Impact dist: 1
Cost: 300
Weight: neg
Encumbrance: 1
Designed to compliment a vacc suit liner, semi-rigid torso units will provide the wearer with the support for the abdomen and lungs lacking in a vacc suit liner. This extends the time that a vacc suit liner may be worn without adverse fatigue effects to about 60 minutes.

Vacc suit.
Pen res: 3
Impact dist: 1
Cost: 4000
Weight: 5 (Light, Average or Solid framed characters);
4 (Small frame);
6 (Huge frame).
Encumbrance: 2
The standard Vacc suit is a tough, double skinned garment which sandwiches a layer of puncture sealant between its inner and outer skins. This sealant will plug most minor punctures and tears, but heftier breaches must be sealed with emergency suit patches, one or two of which are stored in the emergency equipment pockets of every suit. The joints of the suit are "concertina-ed" to minimize the encumbrance of the suit, but the garment still manages to be fairly stiff and heavy.

The standard Vacc suit has a number of "velcro" patches on the soles/soles of the feet, the knees, elbows, thighs, shins and gloves to facilitate movement or to attach items of personal equipment. Magnetic boot soles and palm liners may be activated at the whim of the wearer if so desired. Other suit fittings include lights, and jacks (plugs) allowing the wearer to hook into intercom or computer systems. The pockets of most suits will contain emergency suit patches and a length of tether line.
Visor guard.

Photochromic visor.

Communications and, optionally, mini life-support package.

Detachable and interchangable chin/muzzle piece.

Ballistic armor torso cover

Status displays and auxiliary life-support hook-ups.

Life-support back-pack.

"Velcro" pads can be attached over much of arms and legs for individual positioning or tool carrying.
Military vacc suits have the torso fitted with flak armour, which gives the suit the same coverage and protective value as a flack jacket in the chest, abdomen and neck (the neck is not protected from the front). The addition of armour to a vacc suit raises the suit's weight by the weight of a set of flak armour, but does not increase the suit's encumbrance.

Hostile environment suit.
Penetration res: 5
Impact dist: 3
Cost: 20,000
Weight: 9 (Light, Average or Solid framed characters);
    7 (Small frame);
    11 (Huge frame).
Encumbrance: 3
Hostile environment suits are bulky, rigid armoured vacc suits designed for wear during repairs on "hot" areas of starship drive units, or in areas prone to high concentrations of floating junk. Their ability to handle punctures through their integral sealant material is very high, as is their resistance to accumulating punctures in the first place.

Life support pack.
Cost: 5000
Weight: 5
Encumbrance: 0 unless in close quarters, in which case encumbrance = 1
The standard life support pack, designed for use with vacc suits which are independent of "umbilicals", is a lozenge shaped back pack which slots directly onto the rear of the suit. The normal issue life support pack contains air scrubbers and tanked oxygen capable of sustaining the wearer for about 4 hours, and includes gas jets for personal manoeuvre. In emergencies, the oxygen supply can be used as additional manoeuvre fuel.
A variant on the basic form has half the normal oxygen supply, but three times the manoeuvring capacity of the standard pack. The life support packs of some vacuum work crews will have additional features allowing a monitoring computer to remote control the unit if the wearer should become incapacitated. This feature costs an additional 500 credits, and its use requires the wearer to be in communications contact with a monitoring computer (either by radio or cable link).

Rescue ball.
Cost: 250
Weight: 3
Rescue balls are clear plastic envelopes with a three hour oxygen supply. They are designed as emergency equipment for vacuum installations and large vessels. Getting into a rescue ball in only one turn requires a Co-ord check vs 10.

Punctures to self-sealing suits.
The chart below shows the score required on 1D6 for a vacc suit to successfully seal a puncture using only its internal sealants. Any breach may be sealed with an emergency patch, requiring a roll of the character's M.Dex vs 10 to do so. Each attempt to patch a suit takes one full turn.

<table>
<thead>
<tr>
<th>Type of suit breach</th>
<th>Vacc suit</th>
<th>Hostile env. suit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor puncture</td>
<td>1-6</td>
<td>1-6</td>
</tr>
<tr>
<td>Puncture</td>
<td>1-4</td>
<td>1-5</td>
</tr>
<tr>
<td>Tear</td>
<td>1-3</td>
<td>1-4</td>
</tr>
<tr>
<td>Major tear</td>
<td>no</td>
<td>1</td>
</tr>
</tbody>
</table>

- Hits to a vacc suit helmet will not self-seal. If a character's helmet is penetrated, then the suit will explosively decompress.

INFORMATION:
Information exchange and communications is the life blood of any technological society. Most societies allow citizens a basic allowance of public domain computer time and library access, which are readily hooked into through the average citizens hand computer. This is supplemented by free computer "billboards", public debate nets and information exchanges. Player characters who wish to perform extensive research may have to pay for the additional access, and are referred to the following chart.

<table>
<thead>
<tr>
<th>INFORMATION</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase a map or paperback book</td>
<td>6-10</td>
</tr>
<tr>
<td>Purchase a text book</td>
<td>25-50</td>
</tr>
<tr>
<td>Minor software package</td>
<td>25-50</td>
</tr>
<tr>
<td>Major software package</td>
<td>100-300</td>
</tr>
<tr>
<td>Specialist software package</td>
<td>500-1000</td>
</tr>
<tr>
<td>Library access cost</td>
<td>2-5</td>
</tr>
<tr>
<td>Single use of a public domain A.I.computer</td>
<td>5</td>
</tr>
<tr>
<td>Send message via routine FTL torpedo</td>
<td>10</td>
</tr>
</tbody>
</table>

Use of private newspaper/public debate nets costs 5 credits per month (access to the state nets will be free on socialist worlds). This gives the character ready access to current events and public opinions. For a charge of 20 credits, the character may purchase minor advertising space on a "newspaper" net.
**MEDICAL EQUIPMENT & SUPPLIES:**
Since people can get hurt, it is important to include the means of repairing physical damage. Despite the volume of medical equipment available, I can assure you that the ones your characters will get the most use out of will be bandages and pain killers - and this is as it should be. Medical skill is required for the use of any advanced equipment.

**Medical equipment.**
**Field bandage**
Cost: 1
Weight: neg
Field bandages are used in the emergency staunching of wounds. They are commonly kept in pouches on soldier's armour, and make a damned fine tea strainer.

**First aid kit**
Cost: 30-50
Weight: 1kg
Contains constrictive bandages, field bandages, coagulant sprays, quick setting foam splints and a set of slings for broken limbs, along with a variety of antiseptics, pain killers, anti-biotics and an injection gun.

**Medical status display**
Cost: 100
Weight: neg
A small display unit which attaches to the breast of a vac suit or combat armour. A medical status display is designed to show the wearer's pulse, respiration, blood pressure and EEG readings at a glance.

**Common drugs.**

<table>
<thead>
<tr>
<th>DRUG</th>
<th>USE</th>
<th>COST</th>
<th>EFFECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain killer</td>
<td>oral</td>
<td>.2</td>
<td>Removes the pain from headaches, grazing hits etc (reduces &quot;shock&quot; fatigue by 1 point). Takes 6 turns to take effect.</td>
</tr>
<tr>
<td></td>
<td>spray</td>
<td>5</td>
<td>Gives a -2 DRM to control bleeding. Removes 2 points of shock fatigue after 4 turns.</td>
</tr>
<tr>
<td>Coagulant</td>
<td>injection</td>
<td>5</td>
<td>Removes 5 points of shock fatigue after 4 turns. Reduces all neuro physical characteristics to 1/2 their original level.</td>
</tr>
<tr>
<td>Hvy pain killer</td>
<td>injection</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

A character may not gain benefit from more than one dose of painkiller/pep pill at once.
ROBOTS:
Several types of robot are currently available on the commercial market in ALBEDO, most of which take full advantage of the high state of AI technology. Robots are commonly used to perform a variety of tedious or dangerous tasks, providing the bulk of the manual labour required for the maintenance of technic society. Robots see no use as combative "soldiers" due to the abhorrence with which this concept is viewed (the computers are not too keen on the idea either!)
Robots are created in specialised, practical shapes, and are not specifically anthropomorphc. Robots race about the place on tracks, legs or wheels, and have senses and manipulative devices designed purely for their intended job.
Most simple robots will cost at least 10,000 credits. Robots with more extensive memories, manipulative equipment and special fittings will cost considerably more. Some possible types of robot might include fire fighting 'bots, valets, cargo loaders, librarians, and repair men. The expensive robots necessary for the crewing of installations and starships will usually be supplied or leased from the state.

Example: Probots
Cost: 75,000
Weight: 130
A flexible, intelligent machine designed to provide a wide array of sensitive detection gear for search/exploration tasks. The robot has gas jets for zero-G manoeuver, 4 legs equipped with grippers, and a flexible neck equipped with sensory arrays and two small manipulative arms. The device's sensors include the following: UV/Visible/IR optics, sonar/seismar, limited mass detection, charged/uncharged particle sensors, pan spectrum EM monitors and audio pickups.
Probots are useful items for exploring the extent of battle damage on starships, search and rescue missions and scouting.

Example: Engineering robot
Cost: 50,000
Weight: 150
The hands and eyes of a starship A.I. net, engineering robots are used to effect repairs and perform construction tasks in zero-G or hostile environments. Engineering robots are equipped with legs, gas jets, a number of light and heavy manipulative arms, tools, and have sensory gear attuned to their task of close in work. Most starships will have a gaggle of engineering 'bots on board for use in emergencies, and for performing routine maintenance. Simpler versions of this device will be used for construction work and repairs performed on planetary surfaces.

SENSORS:
Current sensor systems include ultra-violet and infra red optics, sonar/seismar, mass detection, charged/uncharged particle sensors and pan spectrum E.M. monitoring. A few of the systems that players will find most useful are listed below. Other items such as miniature directional microphones etc are available, but are special tools (and therefore custom made to order).

E.M. Detectors:
Cost: 8,000+
Weight: 10+
Usually a part of a star ship or vehicle sensor system, E.M. detectors register the E.M. transmissions from powered equipment and transmitters. The ranges of E.M. detectors will vary depending on the size of the detection gear (the equipment in aerodynes will have a range of a few kilometres, whereas the equipment in starships operates across immense distances). Long ranged equipment will usually lack the pin point accuracy of the smaller detectors.
Movement sensor:
Cost: 200
Weight: Neg
Small, short ranged devices designed to be installed in a static position. Movement sensors are set to give off an alarm when movement is detected in a set 60’ arc.

C.C.D. Eyepiece:
Cost: 200
Weight: Neg
A solid state night sight in the form of a “lens cap”, which is designed to clip onto a set of binoculars or a firearm sight. Characters making spotting attempts at night with C.C.D equipment should not be penalized for the poor light conditions.

Thermal sight:
Cost: 800
Weight: .5
A heavy unit which clips onto the front of visual scopes on firearms, or which may be held in the hand as a sort of “telescope”. Thermal sights are capable of showing up the heat of targets which are sheltering behind cover, and thus “soft” cover (partial concealment) does not count against weapons equipped with thermal sights. Other effects on spotting attempts are similar to the C.C.D. eyepiece listed above.

Night goggles:
Cost: 400
Weight: Neg
C.C.D. goggles/visors used to provide troops with proper night vision. Night goggles are often attached to battle helmets as a visor (with protective values as described under “battle helmets” above). C.C.D. equipment will blank itself out rather than allow the passage of light levels high enough to damage the wearer’s sight.

Pocket E.M. Detector:
Cost: 40
Weight: Neg
A portable warning beeper used to warn of radar sweeps or unaccountable transmissions in the user’s immediate area.

TOOLS:
The following category contains all the miscellaneous equipment which the characters might want to use for purposes other than hurting other people. Thus the category includes everything from power tools to radios.

<table>
<thead>
<tr>
<th>TOOL</th>
<th>COST</th>
<th>WEIGHT</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axe</td>
<td>50-75</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td>100-200</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Binoculars</td>
<td>200-300</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Breathing apparatus, scuba</td>
<td>500-700</td>
<td>12</td>
<td>1.</td>
</tr>
<tr>
<td>Breathing apparatus, light</td>
<td>200-250</td>
<td>3</td>
<td>2.</td>
</tr>
<tr>
<td>Calculator</td>
<td>10-50</td>
<td>neg</td>
<td></td>
</tr>
<tr>
<td>Camera, instamatic</td>
<td>50-100</td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td>Camera, good quality</td>
<td>400-500</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Camera, micro</td>
<td>400</td>
<td>neg</td>
<td></td>
</tr>
<tr>
<td>Electronics tool kit</td>
<td>100-200</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Emergency car tools</td>
<td>30-50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Explosives, industrial</td>
<td>100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Explosives, plastic</td>
<td>1000</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fire extinguisher</td>
<td>150</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Flare pistol</td>
<td>300 +5 per shot</td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td>Gas mask</td>
<td>50-75</td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td>Hand tool</td>
<td>8-12</td>
<td>.2 to 1</td>
<td></td>
</tr>
<tr>
<td>Inertial locator</td>
<td>200-300</td>
<td>neg</td>
<td></td>
</tr>
<tr>
<td>Lamp, infra red</td>
<td>100-200</td>
<td>.5 to 1</td>
<td></td>
</tr>
<tr>
<td>Lantern</td>
<td>25-50</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Lighter</td>
<td>1</td>
<td>neg</td>
<td></td>
</tr>
<tr>
<td>Mechanical tool kit</td>
<td>300-500</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Megaphone</td>
<td>100</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Monitor (computer display)</td>
<td>200-500</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Oxy-aceteline torch + gas</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pager, pocket</td>
<td>10</td>
<td>neg</td>
<td>7.</td>
</tr>
<tr>
<td>Periscope, binocular</td>
<td>250-350</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Power collector, solar</td>
<td>1000-1200</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Power tool</td>
<td>80-350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation counter</td>
<td>100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Radio headset, small</td>
<td>50</td>
<td>neg</td>
<td>8.</td>
</tr>
<tr>
<td>Radio, handset</td>
<td>100</td>
<td>.25</td>
<td>3.</td>
</tr>
<tr>
<td>Radio, short range, civil</td>
<td>100-300</td>
<td>1</td>
<td>4.</td>
</tr>
<tr>
<td>Radio, long range, civil</td>
<td>300-500</td>
<td>4</td>
<td>5.</td>
</tr>
<tr>
<td>Radio, short mg, military</td>
<td>100</td>
<td>1</td>
<td>4.</td>
</tr>
<tr>
<td>Radio, long mg, military</td>
<td>400</td>
<td>2</td>
<td>5.</td>
</tr>
<tr>
<td>Rope, 300kg test, 100 m</td>
<td>50</td>
<td>3 kg</td>
<td></td>
</tr>
<tr>
<td>Tarpaulin, shelter half</td>
<td>10-20</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td>Tarpaulin, full tarp</td>
<td>50-60</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Torch</td>
<td>5-25</td>
<td>neg to 1</td>
<td></td>
</tr>
<tr>
<td>Watch</td>
<td>10-200</td>
<td>neg</td>
<td>6.</td>
</tr>
<tr>
<td>Video camera + laser disk memory</td>
<td>300-800</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
1. 3 hour oxygen supply.
2. 20 minute oxygen supply
3. Range = 1 kilometer.
4. Range = 5 kilometers
5. Range 2-300 (ground to low orbit) kilometers.
   The main difference between civil and military communicators is that military radios send their messages in condensed pulses to reduce the chance of the transmitter being pin pointed by detection gear.
6. Integral space invader game optional.
7. Pocket pagers are usually linked to a home computer. They will alert the carrier of any urgent phone calls which must be answered, and give some details on the call through a digital readout built into the machine.

8. Range = 500 metres.

There are no laser cutting or welding tools.

**TRAVEL COSTS:**

Movement and travel can be a major drain on anyone's budget (although the citizens of the "socialist" inner ConFed worlds will normally have a limited amount of free access to public transport nets). Please note that space travel is rather beyond the means of most people due to the prohibitive cost. Government or company subsidized programs are the only way most non starship crew, colonists or military personnel will get to see far planets.

<table>
<thead>
<tr>
<th>TRAVEL TYPE</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Train/bus trip within a city</td>
<td>1-3</td>
</tr>
<tr>
<td>Taxi trip within a city</td>
<td>5-20</td>
</tr>
<tr>
<td>Car rental, per day</td>
<td>40-60</td>
</tr>
<tr>
<td>Bus/train trip between cities (depending on distance)</td>
<td>50-300 depending on distance</td>
</tr>
<tr>
<td>Plane ticket between cities</td>
<td>300-400</td>
</tr>
<tr>
<td>Plane ticket between continents</td>
<td>500-800</td>
</tr>
<tr>
<td>Space travel within a system</td>
<td>2 000-4 000</td>
</tr>
<tr>
<td>Starship ticket</td>
<td>5000-10,000</td>
</tr>
<tr>
<td>Transport cargo by starship per tonne</td>
<td>500-1000</td>
</tr>
</tbody>
</table>

**VEHICLES:**

A huge array of vehicles are available to the societies of ALBEDO. Unfortunately, a proper discussion of vehicles and vehicle combat will have to wait for a future volume. For the present, we will only detail the vehicles which characters will be most likely to use or encounter.

Small ground vehicles will usually be powered by hydrogen combustion engines (though a variety of other power plants may be used, depending on the local tech base). The larger ground vehicles in ALBEDO are powered by electric motors set into each wheel hub, which draw their power from gas turbine generators (high tech vehicles often have heat/energy converters added to the vehicle to scavenge extra power and to disperse waste heat). Ground vehicle engines are comparatively quiet.

The materials technology of ALBEDO has produced monomolecular armour, a composite material constructed from monomolecular laminates of dissimilar metallic and non metallic materials. The resulting armour is extremely strong, and subsequently most vehicles clad in monomolecular armour are essentially proof against all but vehicle mounted heavy weapons. Their hulls are proofed against mines, high explosives and light thermal penetration warheads. Only heavy weapons such as hypervelocity guns stand a real chance of killing an armoured vehicle, although close range, concentrated cannon fire can occasionally chew its way through laminate armour by repeated hits on the same area.

Military vehicles thus tend to polarize themselves into anti vehicle and infantry support roles. Armoured vehicles are surprisingly small due to the compactness of their engines, weapons systems and armour, greatly facilitating their air portability. Most EDF vehicles are tracked, while the ILR uses mostly wheeled vehicles. Homeguard forces might have just about any type of vehicle, but most planetary defence forces will have some part compatibility with the standard equipment of their allies.

A variety of civilian ground cars and light trucks are available to the public. The level of private car ownership on the worlds of the inner ConFed is quite low.

**Ground vehicle Chassis types:**

**Wheeled chassis.**

Wheeled chassis form the basis of most civil and many military vehicles. They are popular due to their cheapness and durability.

- **Chassis Type: Cycle**
  - Structure: 3
  - Max. load: Driver + 1 passenger
  - Cruise Speed: 80
  - Top Speed: 120
  - Cost: 3000-5000

- **Chassis Type: Ground Car**
  - Structure: 6
  - Max. load: Driver + 4 passengers
  - Cruise Speed: 60
  - Top Speed: 110
  - Cost: 8000-10,000

- **Chassis Type: Van**
  - Structure: 8
  - Max. load: Driver + 8 passengers
  - Cruise Speed: 60
  - Top Speed: 100
  - Cost: 10,000-15,000

- **Chassis Type: Truck**
  - Structure: 10
  - Max load: Driver + 12 passengers
  - Cruise Speed: 50
  - Top Speed: 90
  - Cost: 20,000-30,000
Chassis Type: **Heavy truck**
Structure: 12
Max load: Driver + 24 passengers
Cruise Speed: 50
Top Speed: 90
Cost: 40,000-80,000

**MILITARY CHASSIS:**
Chassis Type: **4 Wheeled**
Structure: 8
Max. load: Driver, 1 passenger
Cruise Speed: 60
Top Speed: 100

Chassis Type: **6 Wheeled**
Structure: 10
Max load: Driver & up to 4 passengers (long bodied vehicles may carry 6 passengers).
Cruise Speed: 60
Top Speed: 100

Chassis Type: **8 Wheeled**
Structure: 12
Max load: Driver & a max of 9 passengers
Cruise Speed: 60
Top Speed: 80

**Hover vehicles:**
Also termed G.E.V.s (ground effect vehicles), air cushion hover vehicles are rarely used by the military since they are immensely handicapped by rough terrain, manoeuvre poorly through tight streets, and produce a large amount of noise and dust.

Chassis Type: **Hover car**
Structure: 8
Max load: Driver + 3 passengers
Cruise Speed: 80
Top Speed: 160
Cost: 20,000-30,000

Chassis Type: **Light G.E.V.**
Structure: 8
Max load: Driver + 6 passengers
Cruise Speed: 80
Top Speed: 160
Cost: 25,000-35,000

Chassis Type: **Heavy G.E.V.**
Structure: 16
Max load: Driver + 48 passengers
Cruise Speed: 60
Top Speed: 140
Cost: 50,000-100,000

**Tracked vehicles:**
Due to their low ground pressure and high traction, tracked vehicles are popular in a cross-country role. Most E.D.F. armoured vehicles are tracked (although they can operate on their road wheels if necessary). A major disadvantage with tracked vehicles is that they may shed a track upon performing a violent manoeuvre. Vehicles which shed a track suffer decreased manoeuvrability, and drop their maximum speed to 3/4 of the rated amount until the remaining track can be blown, after which the vehicle is treated as wheeled vehicle.

**Military chassis**
Chassis Type: **Tracked** (small/ medium/ large/very large)
Structure: 10/12/13
Max load: Driver & up to 8 passengers
Cruise Speed: 40
Top Speed: 80/80/70

The standard tracked vehicle is quite small to allow for air portability. Heavier vehicles are occasionally used by some Homeguard units.
EDF AV4 Armored Fighting Vehicle, fitted with single 8mm remote control MG

**Armament:**
Armoured vehicles may mount a turreted armament. Light armaments may be fitted onto any vehicle. 6 wheelers, 8 wheelers and medium/large tracked vehicles may mount medium armaments. 8 wheelers, and large tracked vehicles may mount heavy armaments. Co-axial weapons are usually 10mm to 16mm heavy machine guns, and may have gas, external pneumatic or electric actions.

Vehicles may also mount MGs, HMGs and grenade launchers in small remote mounts to supplement the vehicle's main armament.

**Armour:**
Armoured fighting vehicles will be equipped with composite laminate armour. Some military "soft" vehicles will have very tough sides (penetration resistance of 10).

<table>
<thead>
<tr>
<th>Armour type</th>
<th>Pen res</th>
<th>Impact dist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light composite</td>
<td>30 (front) 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28 (sides &amp; rear)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 (suspension)</td>
<td></td>
</tr>
<tr>
<td>Heavy composite</td>
<td>37 (front) 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32 (sides &amp; rear)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26 (suspension)</td>
<td></td>
</tr>
</tbody>
</table>

Heavy composite armour may only be fitted to very large tracked vehicles. Such vehicles are mostly used by various homeguard forces. E.D.F. doctrine does not try for situations where heavy armour needed, but homeguards might have them, lacking the firepower in depth that the E.D.F. enjoys.

**AIR VEHICLES.**
Only three types of air vehicle need concern us here in the ALBEDO basic rules set - **helicopters, fixed wing aircraft** and aerodynes.

Fixed wing and rotary wing vehicles operate in the low subsonic speed range. When a higher speed vehicle is required, an aerodyne will be used.

**Helicopters:**
Helicopters are familiar vehicles due to their comparatively cheap cost (100,000+) and general handiness. They are common civil vehicles, but see almost no military use at all except in a security monitoring role. They are specifically designed for a good hovering capability and high performance at sub-sonic speeds. When a faster vehicle is required, aerodynes will be used. Helicopters have a structure of 10 to 12.

Vehicle Type: Helicopter
Cost: 100,000+
Crew: 1 or 2
Structure: 10

Details: Rotary wing aircraft are common utility vehicles which are designed for high efficiency at low sub-sonic speeds, and a good hover performance. Helicopters lack the speed and flexibility of Aerodyne vehicles, but are far cheaper. Large cargo-carrying helicopters would have a higher structure rating, and a higher price.

**Fixed wing aircraft:**
Fixed wing aircraft are less fuel intensive than either aero's or helicopters, and thus fill the roles of low cost, low speed transport.
Vehicle Type: Light fanjet.
Cost: 50,000+
Crew: 1 + 1 or 2 passengers
Structure: 8
Details: ALBEDO's light pleasure aircraft is a robust little fanjet vehicle somewhat larger in size than a groundcar sedan. Capable of carrying two passengers at speeds of up to 800 kph, fanjets are capable of operating with minimal facilities.

Vehicle Type: Cargo transport.
Cost: 500,000+
Crew: 2 + either cargo or 20 or more passengers
Structure: 8
Details: High utility STOL aircraft used for the transit of non-urgent cargo and passengers. They come in a variety of size categories, and could use a number of different power plants depending upon local manufacturing capability and tech base.

Aerodynes:
The air vehicle which concerns us most in this game is the AERODYNE, a fusion powered vessel capable of operation within an atmosphere, or of maneuver in space. As such, they are common and useful vehicles, and very much a part of day to day life for many military characters. An aerodyne consists of a semi-lifting body form powered by one or more small fusion reactors which provide high pressure, superheated hydrogen which is routed through an array of intermix venturies to combine with the atmosphere before being shunted out for vertical or horizontal thrust. Manoeuvring for all axis are by differential thrust, managed by on-board computer, which receives its inputs though the pilots grips and pedals.

The pilot's inputs, however, are for desired attitude rather than direct control, and the computer arranges thrust to suit, keeping track of attitude and environment so as to avoid any "controlled conflicts" into the ground or objects. The computer can also assist in fire control and combat manoeuvring, or even take over in case the pilot is disabled. Aerodynes are highly versatile craft. Normally operating at subsonic speeds, properly adapted aerodynes may travel at high machs if the operator is willing to pay the penalty in increased fuel consumption. Simple preparation and increased fuel stores will allow aerodynes to operate in exo-atmospheric or even orbital flight. Aerodynes perform the duties of fighter aircraft, gunships, VERTOL troop transports, cargo vessels and light freighters. Most large starships could be expected to carry an aerodyne to serve as a shuttle/ship's boat. The rated load capacities on aerodynes assumes a 3 G take off with a full load of fuel. Higher payloads may be carried, but at the penalty of lower speeds and shorter range.

All exo-atmospheric craft are in principal much the same. Bigger ships have multiple reactors or special modifications for long running forward thrusting. Ships designed for inter-planetary or interstellar work will have cabins designed for both vertical and horizontal orientation. Aerodynes are not designed to compete with true starships in space combat, but it is the flexibility of their aerospace role which holds the key to their success.
Note:
In combat against starships, aerodynes will always lose, since they carry no ordnance and lack the reaction mass and sensors of a true starship. Strikes by starship main weaponry against aerodynes will either cause a catastrophic or massive hit, or will vaporize the aero entirely.

Vehicle Type: **Air car**
Cost: c.500,000+
Crew: 1
Structure: 8 or 9
Details: A light two to four seater designed for good performance at sub-sonic speeds. Air-cars fill the role of small private aeroplanes. Air-cars are turbine driven, rather than fusion powered, using a high bypass turbojet to drive the thrust system. These vehicles have a limited top speed (circa 400kph), and a maximum range of about 1000 kilometres. Needless to say, air-cars may not be used for exo-atmospheric or orbital flight.

Vehicle Type: **Light Aero**
Crew: 1 or 2
Structure: 14
Details: Light utility vehicles which see use in a variety of roles. In civilian format, they may carry about eight passengers or 2000 kilos of cargo. Military versions are armoured, and may come in transport or gunship modes. Transports will carry about 6 fully equipped soldiers and have provision for 2 weapons mounts (beam weapons or auto cannon only). Gunships will carry 2 extra weapons mounts, and will have 1 or 2 crew specialists in addition to the normal crew compliment. The Aero 3 is a typical light aero.

Vehicle Type: **High performance aero**
Structure: 14

Details: Up-rated versions of the light aero, high performance aeros have approximately the same size but offer higher payloads. While space considerations mean that this does not change the number of passengers carried to any real degree, the greater fuel load makes this vehicle faster than the light aero. Military versions carry a higher payload of armour, but otherwise have the same compliment of passengers and armament. The Aero 6 is a typical high performance aerodyne.

Vehicle Type: **Heavy aero**
Crew: 1 or 2
Structure: 16
Details: Heavy transports of various designs capable of shifting about 10 (the D10) to 36 (the D36) tonnes of cargo, or a large number of passengers. Military versions are used as vehicle landing craft and bulk transports, and are accordingly heavily armoured. Landing craft will normally have 2 ventral weapons mounts which may mount beam weapons or cannon. In gun-ship mode, these vehicles will add two more ventral beam weapons/auto cannon mounts, and a central pair of weapons mounts which may be equipped with light hyperkinetic guns. Gunships will carry additional crew specialists in the main hull to man the extra weapons.

**Interstellar capable:**
Interstellar aerodynes are formed by lining the hull of a huge cargo vessel with jump field generators and installing the capacitors and MHD coils required to power a jump drive. Interstellar capable aerodynes will have multiple reactors and decks oriented for use when the ship is under forward thrust. Interstellar aerodyne transports are quite slow when compared to true starships, since fuel limitations dictate lower levels of thrust during the journey out of a system's gravity well.
Vehicles

Small Jet Transport

Small Helicopter

Medium Turbo-Fan Transport

Aerodyne A-3

A-8 Gunship

D-32

Small FTL Courier

F-240
Exo-atmospheric Shuttle

Autonomous Combat Vehicle.
Vehicle Type: **FTL Aero-freighter**
Crew: 4+
Structure: 18
Weight: 600 tonnes
Details: Lumbering, 600 tonne jump capable vessels with 100 tonne payloads. FTL freighters do not have the endurance for very long trips. Freighters have a 6 point armoured skin.

Vehicle Type: **FTL scout**
Crew: 4+
Structure: 17
Weight: 500 tonnes
Details: Jump capable vessels armed with 2 or more beam weapons. Scouts have enough endurance to last out a few months or trip, giving them limited endurance in an environment which requires long periods of acceleration out system before a jump can be made.

Larger interstellar Aerodynes can mass up to 8000 tonnes, where they are superseded by true starships (which mass 10,000 tonnes or more). Interstellar aerodynes are often slower than starships, since they do not carry the high fuel payloads required for constant high acceleration.

**BASIC VEHICLE COMBAT RULES:**
When a vehicle's armour is penetrated, roll on the wound chart as normal. Use the vehicle's structure rating as a DRM to replace the usual "frame size" DRM. Any result of a massive or catastrophic wound will destroy the vehicle. Serious wounds disable the vehicle in some way. Lesser damages are ignored. Vehicle armour has an impact distribution of 8.

Players may design ground and air vehicles by simply taking a basic chassis type and adding weapons, armour and fittings. Due to the astronomical costs involved, the prices for armoured vehicles are not listed. Such equipment will be issued to characters, and not purchased by them.

**Weapons systems descriptions:**
**Cannon:**
24mm/L80 or 32mm/L80 pneumatically or electrically driven auto weapons firing armour piercing depleted uranium munitions. Against vehicle targets, multiple hits will increase the weapon's damage and penetration. For each additional shell over and above the first which strikes the target, increase the weapon's damage and penetration ratings by 2.

**Hyperkinetic guns:**
Long tube launchers which use liquid propellants to project shells of 64mm to 120mm calibre. The phenomenal velocities achieved give the weapons a very high penetration and damage. A variety of different smart and dumb shells exist, making this a flexible and devastating weapon system.

**MS launcher (Missile System):**
Short tube launchers in calibres of 104 to 240mm firing guided self propelled ordnance. These weapon systems are quite rare. Guided missiles will always strike their target if a clear shot can be had. If the missile is seen coming or is detected by the target's sensor systems, then the target vehicle may attempt to evade. A driving/piloting skill roll must be made vs a difficult task. A successful roll will cause the missile to miss.

**Aerospace weapons:**
Many aerodynes mount beam weapons in addition to their conventional kinetic armament. These devices have a penetration of 8, and a damage of +2, and fire in the manner described for light cannon. Only one damage/penetration roll is caused by any given hit roll made by a beam weapon, but every additional hit

**Basic vehicle weapon systems.**

<table>
<thead>
<tr>
<th>Weapon type</th>
<th>Penetration</th>
<th>Damage</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Light weapons:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light cannon</td>
<td>17/15/4/12</td>
<td>+7/+7/+6/+5</td>
<td>200/500/2000/4000</td>
</tr>
<tr>
<td>Heavy cannon</td>
<td>18/16/15/12</td>
<td>+8/+8/+7/+6</td>
<td>200/500/2500/4000</td>
</tr>
<tr>
<td>Light MS</td>
<td>32</td>
<td>+16</td>
<td>To 4000 metres</td>
</tr>
<tr>
<td><strong>Medium weapons:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Hyperkinetic gun</td>
<td>38/36/35/32</td>
<td>+14/+14/+12/+10</td>
<td>500/1000/300/4000</td>
</tr>
<tr>
<td>Heavy MS</td>
<td>36</td>
<td>+18</td>
<td>To 5000 metres</td>
</tr>
<tr>
<td><strong>Heavy weapons:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hvy Hyperkinetic gun</td>
<td>40/38/37/35</td>
<td>+16/+16/+14/+12</td>
<td>500/1000/3000/4000</td>
</tr>
</tbody>
</table>

All notations are for short/medium/long/extreme ranges.
made on the target in the same location adds +8 penetration and +6 damage to the hit. Beam weapons halve all DRM's for moving targets. They have a short range of 1000, a medium range of 2000, a long range of 4000 and an extreme range of 5000 while firing within atmospheres.

WAGES:
Given the array of potential expenses detailed above, players can at least be comforted by the thought that money can be earned to cater to the characters expensive tastes. Please note that many wages will be paid bi-weekly or even monthly.

Inner ConFed worlds - sample incomes.

<table>
<thead>
<tr>
<th>Weekly income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard state allowance</td>
</tr>
<tr>
<td>Casual labour</td>
</tr>
<tr>
<td>Part time labour</td>
</tr>
<tr>
<td>Full time work (service)</td>
</tr>
<tr>
<td>Full time work (admin)</td>
</tr>
<tr>
<td>Senior Admin</td>
</tr>
</tbody>
</table>

The worlds of the inner ConFed provide for most of their citizen's needs, and thus work for a set wage is performed only to increase a citizen's purchasing power, and not as a vital necessity. Citizens who join the armed forces will be paid at the level of service or admin personnel, depending on rank.

"Capitalist" worlds - sample incomes.

<table>
<thead>
<tr>
<th>Weekly wages (&quot;take home&quot; pay)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unskilled labour</td>
</tr>
<tr>
<td>Skilled</td>
</tr>
<tr>
<td>Highly paid</td>
</tr>
<tr>
<td>Lower executive</td>
</tr>
</tbody>
</table>

The outer ConFed and the I.L.R. worlds more closely approximate modern western capitalism in their economic set ups. Thus characters will have to earn a wage to provide themselves with food, lodgings, medical care and information access.
WEAPONS

The firearms used in ALBEDO are people killing tools - the weapons of murder. The only non-military firearms are those used for target shooting (a sport which enjoys a limited popularity in some low population density areas). "Sporting" weapons do not usually have the advanced features of military versions, and military "dart" ammunition is rarely sold commercially.

The small arms used in ALBEDO all rely upon kinetic energy to effect their targets, and are thus largely similar to modern firearms. It is in the peripheral areas of ammunition types and targeting systems that ALBEDO's military firearms differ from modern models.

Just about every weapon comes with interchangeable grips and stocks to allow use by a wide variety of user species.

Actions.

Firearms will have one of the following operating/loading systems: manual, recoil/gas operated, external pneumatic operated or electrically driven. Manually operated weapons require the firer to expend a "load" action to prime the weapon. Recoil/gas operated weapons are the most common system. All weapons specified in these rules are assumed to operate through this system unless otherwise stated.

Pneumatically operated weapons receive a -1 DRM when rolling on the breakdowns chart.

Electrically operated weapons have an enormously high rate of fire, and therefore score one extra hit on their targets for every point by which they undercut the minimum roll to hit. Bursts fired from electrically driven weapons expend c.20 rounds of ammunition.

Sights.

Military firearms are equipped with target illuminating lasers which are "reflexed" through the weapon's optical sights. Laser equipped firearms receive reduced penalties for firing unaimed shots when at ranges of up to 60 meters. A second use for target illuminators is as a range finder, allowing accurate range readings to be made at out to 500 meters. Laser target illuminators may use either visible light or IR (which will be visible to characters using C.C.D. equipment).

Many military weapons come with telescopic sights as standard equipment. Smart sights will be a common addition to tripod mounted weaponry.

Firearm calibres.

Military ammunition is split into two main calibres, 8mm and 6mm.

The E.D.F. uses 8mm cased ammunition in its standard weapons. E.D.F. 8mm caliber military bullets are sub-caliber hard bodied saboted darts (4mm inner core) coated in a friction reducing substance (such as teflon).

Dart ammunition is equipped with base bleed, which reduces the round's loss of energy over range, thus making the weapon more accurate at long ranges. By projecting 4mm projectiles out of 8mm barrels, the 8mm sub-caliber dart round manages to achieve phenomenally high velocities, giving it extremely high armour penetration.

The I.L.R. uses caseless 6mm dart ammunition with the same base bleed features found on E.D.F. ammunition. 6mm caseless ammunition is not saboted. It therefore has a slower, heavier slug than E.D.F. 8mm sub-munitions, and is only really armour piercing in rifle caliber (long cartridge).

I.L.R. 6mm munitions have traded off the high energy of 8mm discarding sabot ammunition for higher magazine capacities on personal weapons. The effects of vacuum exposure and rapid temperature change on caseless ammunition has already been noted in book 1.

The ammunition statistics chart lists the important characteristics of each type of small arms projectile. Damage and penetration are rated at short, medium, long and extreme ranges.

Ammunition costs.

Sporting cal, 100 rounds: 12
6mm cal, 100 rounds: 30
8mm pistol dart, 100 rounds: 35
8mm short/long cal, 100 rounds: 35
8mm short/long dart munitions, 100 rds: 40
10mm cal, 100 rounds: 100
12mm cal, 100 rounds: 120
16mm cal, 100 rounds: 160
Hand grenades, per round: 25
Self propelled grenades, per round: 40

Now you know how wars get to be an expensive business...

**GRENADES AND EXPLOSIVES:**

Grenades and explosive weapons come in several types, which are detailed below. E.D.F. troops are not normally issued with specialised grenade types, relying mostly upon variable grenades. Flechette grenades see almost no use at the current period of time, and are thus not included in the equipment lists.

Grenade fragments do not normally penetrate very deeply, and thus use column 2 on the damage determination chart. Normal body armour provides no protection against blast damage. Blast damage does not roll for hit location. Characteristic DRM's from blast wounds apply to all characteristics.

**Chemical effect grenades.**

Available in 32 and 48 mm versions, These are available in incendiary, smoke and illumination versions. Incendiary grenades (and also petrol bombs) shower the target with burn effects (use wound column 2, damage = 0). The flame will burn for 3D3 turns, rolling for hit locations every turn. Pretty? Incendiary and smoke grenades obscure the target hex with a cloud of smoke which will usually last for 1 minute (or 4 turns if tear gas). Illumination rounds illuminate an area 30 meters in radius, and will burn any location directly hit by such a round with a burn effect (damage 10).

**Variable grenades.**

E.D.F. 32mm variable grenades are dual purpose weapons which may be set either for fragmentation blast or armour penetration simply by varying the fuse setting. The ConFed E.D.F. forces will not normally be equipped with specialised grenade types, and rely almost entirely upon their variable grenades and hand grenades.

Variable grenades are self propelled, but may be thrown by hand. Their armour piercing mode is of little use when thrown by hand, since there is no way

---

**Magazine weights (kilos).**

<table>
<thead>
<tr>
<th>Mag Capacity</th>
<th>4mm</th>
<th>6mm pistol</th>
<th>6mm rifle</th>
<th>8mm pistol</th>
<th>8mm rifle</th>
<th>10mm</th>
<th>12mm</th>
<th>16mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 rds</td>
<td>.05</td>
<td>.07</td>
<td>.07</td>
<td>.10</td>
<td>.17</td>
<td>.40</td>
<td>.48</td>
<td>.80</td>
</tr>
<tr>
<td>12 rds</td>
<td>.06</td>
<td>.10</td>
<td>.11</td>
<td>.12</td>
<td>.20</td>
<td>.60</td>
<td>.72</td>
<td>1.2</td>
</tr>
<tr>
<td>16 rds</td>
<td>.08</td>
<td>.13</td>
<td>.15</td>
<td>.16</td>
<td>.27</td>
<td>.80</td>
<td>.96</td>
<td>1.6</td>
</tr>
<tr>
<td>20 rds</td>
<td>.10</td>
<td>.16</td>
<td>.18</td>
<td>.20</td>
<td>.36</td>
<td>1.0</td>
<td>1.2</td>
<td>2.0</td>
</tr>
<tr>
<td>24 rds</td>
<td>.12</td>
<td>.19</td>
<td>.22</td>
<td>.24</td>
<td>.40</td>
<td>1.2</td>
<td>.15</td>
<td>2.4</td>
</tr>
<tr>
<td>32 rds</td>
<td>.16</td>
<td>.26</td>
<td>.28</td>
<td>.32</td>
<td>.54</td>
<td>1.6</td>
<td>1.92</td>
<td>3.2</td>
</tr>
<tr>
<td>48 rds</td>
<td>.24</td>
<td>.39</td>
<td>.43</td>
<td>.48</td>
<td>.80</td>
<td>2.4</td>
<td>2.9</td>
<td>4.8</td>
</tr>
<tr>
<td>100 rds</td>
<td>.50</td>
<td>.80</td>
<td>.90</td>
<td>1.0</td>
<td>1.80</td>
<td>5.0</td>
<td>6.0</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Cross reference the number of rounds held in the magazine (left margin) with the weight per round in grams (top line, bold print) to find the approximate weight of the magazine in kilos.
of guaranteeing that the hollow charge will strike its
target front end on. When fired from a launcher,
stabilizing fins deploy to give the weapon a stable
trajectory.
Variable grenades are usually set for fragmentation
effect. Changing the setting on a grenade fuse takes
one action.

Grenade weights.
32mm grenades weigh .7 of a kilogram. 48mm
grenades weigh 1 kilo.

WEAPON LISTS:
The lists below specify the sum of the weapons
currently produced by the various governments of
known space. Some of the most likely custom made
weaponry has also been listed. Each weapon's range
statistics are split into four sections, these being the
figures relevant to the weapon's short, medium, long
and extreme ranges. All weights listed below are the
weight of the loaded weapon.

Standard military weapons in the ConFed vary from
world to world. For instance, the Ekosiak homeguard
ekes out its supply of E.D.F. pattern assault rifles
with locally produced assault carbines, both of which
take the standard E.D.F. 8mm x 50 cartridge.
Sporting weapons tend to be small calibre semi-
automatic versions of military small arms. The
limited military experience of the culture of ALBEDO
has lead to simple small arms formats (conventional
stock-grip-magazine layout).

Missile weapon: PISTOL
Caliber: 6mm or 8mm pistol
Handiness: VERY HANDY
Ranges: 20/40/50/70
Magazine capacity: 20 (6mm caliber) or 16 (8mm
caliber). Very small handed species (avians, mice
etc) will have reduced capacity magazines (eg 16/12
rounds)
Weight: 1
Cost: 400-700 CR
Description: Magazine fed semi-automatic handguns.
Not designed for combat in an environment where
body armour is common, pistols are mainly used as
an effective defensive armament. Pistols are not
capable of automatic fire.

Carefully aimed shots with pistols assume that the
firer is supporting the weapon either with a second
hand or by resting the barrel.

Missile weapon: MACHINE PISTOL
Caliber: 6 & 8 mm pistol cal.
Handiness: VERY HANDY
Ranges: 20/40/50/100
Magazine capacity: From 16 to 36 for 8mm weapons,
20-42 rounds for 6mm.
Weight: 1.5
Cost: 600-800 CR
Description: A fully automatic pistol. These devices
are uncommon except as the defensive side arms of
vehicle crews. The clips are interchangeable with
SMG magazines of the same calibre.

Missile weapon: SUB MACHINE GUN
Caliber: 4, 6 & 8mm pistol and rifle calibres.
Handiness: VERY HANDY
Ranges: 20/50/100/150
Magazine capacity: See machine pistols
Weight: 2.5
Cost: 600-1000
Description: This category covers a variety of short,
handy weapons. S.M.G's are essentially longer
barrelled versions of the machine pistol. Designed for
close in work and high rates of fire, SMG's are used
primarily by terrorists, security troops and police,
vehicle crews etc.
**WEAPONS REFERENCE CHART.**

The damage and penetration columns are divided into values for Short/Medium/Long/Extreme ranges.

### Small arms ammunition statistics.

<table>
<thead>
<tr>
<th>Caliber</th>
<th>Damage</th>
<th>Recoil</th>
<th>Wt</th>
<th>Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>8mm Pistol</td>
<td>0/0/-1/-2</td>
<td>1</td>
<td>10</td>
<td>3/1/0/0</td>
</tr>
<tr>
<td>8mm Rifle</td>
<td>+2/+2/+1/0</td>
<td>3</td>
<td>20</td>
<td>7/7/5/4</td>
</tr>
<tr>
<td>8mm Pistol dart</td>
<td>-1/-1/-1/-2</td>
<td>1</td>
<td>10</td>
<td>4/3/2/1</td>
</tr>
<tr>
<td>8mm Rifle dart</td>
<td>+1/+1/+1/-1</td>
<td>3</td>
<td>20</td>
<td>9/9/8/7</td>
</tr>
<tr>
<td>6mm Pistol dart</td>
<td>0/0/-1/-2</td>
<td>0</td>
<td>8</td>
<td>2/2/1/0</td>
</tr>
<tr>
<td>6mm Rifle dart</td>
<td>+1/+1/+1/-1</td>
<td>2</td>
<td>10</td>
<td>8/8/7/6</td>
</tr>
<tr>
<td>4mm dart</td>
<td>-2/-2/-2/-4</td>
<td>0</td>
<td>5</td>
<td>5/4/2/1</td>
</tr>
<tr>
<td>4mm Sports</td>
<td>-1/-2/-3/-4</td>
<td>0</td>
<td>5</td>
<td>4/3/0/0</td>
</tr>
<tr>
<td>10mm dart</td>
<td>+3/+3/+3/+1</td>
<td>N/A</td>
<td>50</td>
<td>10/10/8/7</td>
</tr>
<tr>
<td>12mm</td>
<td>+3/+3/+2/+1</td>
<td>N/A</td>
<td>60</td>
<td>11/11/9/8</td>
</tr>
<tr>
<td>16mm</td>
<td>+4/+4/+3/+2</td>
<td>N/A</td>
<td>100</td>
<td>12/12/10/9</td>
</tr>
</tbody>
</table>

### Firearms characteristics.

<table>
<thead>
<tr>
<th>Weapon Type</th>
<th>Range (S/M/L/Ex)</th>
<th>Penetration modifiers</th>
<th>Weight (kilos)</th>
<th>Handiness Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pistol</td>
<td>20/40/50/70</td>
<td></td>
<td>1</td>
<td>V. Handy</td>
</tr>
<tr>
<td>Machine Pistol</td>
<td>20/40/50/100</td>
<td></td>
<td>1.5</td>
<td>V. Handy</td>
</tr>
<tr>
<td>S.M.G.</td>
<td>20/50/100/150</td>
<td></td>
<td>2.5</td>
<td>V. Handy</td>
</tr>
<tr>
<td>Assault Carbine</td>
<td>20/120/200/300</td>
<td>-1 extreme rng</td>
<td>3/3.5</td>
<td>Handy</td>
</tr>
<tr>
<td>Assault Rifle</td>
<td>20/120/250/400</td>
<td></td>
<td>3.5/4</td>
<td>Average</td>
</tr>
<tr>
<td>L.M.G.</td>
<td>50/200/300/800</td>
<td></td>
<td>8/10</td>
<td>Average</td>
</tr>
<tr>
<td>L.M.G. (tripod mount)</td>
<td>50/200/400/1000</td>
<td></td>
<td>11/13</td>
<td>Average</td>
</tr>
<tr>
<td>H.M.G.</td>
<td>50/200/500/1500</td>
<td></td>
<td>16</td>
<td>Cumbersome</td>
</tr>
<tr>
<td>Sniper's Rfl (10mm)</td>
<td>50/500/800/1000</td>
<td></td>
<td>12</td>
<td>V.Cumbersome</td>
</tr>
<tr>
<td>Sniper's Rfl (12mm)</td>
<td>50/500/800/1000</td>
<td></td>
<td>13</td>
<td>V.Cumbersome</td>
</tr>
<tr>
<td>Sniper's Rfl (16mm)</td>
<td>50/500/700/800</td>
<td></td>
<td>16</td>
<td>V.Cumbersome</td>
</tr>
<tr>
<td>Sport Rifle</td>
<td>-4mm. 20/80/200/300</td>
<td></td>
<td>5</td>
<td>Cumbersome</td>
</tr>
<tr>
<td>-6 or 8mm</td>
<td>20/100/300/600</td>
<td></td>
<td>5</td>
<td>Cumbersome</td>
</tr>
<tr>
<td>Shotgun</td>
<td>20/50/70/100 Pen = 3/1/-</td>
<td></td>
<td>4</td>
<td>Cumbersome</td>
</tr>
<tr>
<td>Light grenade launcher</td>
<td>20/100/200/300</td>
<td>(IDF 80-500)</td>
<td>1.2/1.5</td>
<td>-1 class</td>
</tr>
<tr>
<td>Grenade launcher</td>
<td>20/100/200/300</td>
<td>(IDF 80-500)</td>
<td>5</td>
<td>V. Cumbersome</td>
</tr>
<tr>
<td>Auto grenade launcher</td>
<td>50/200/500/1500</td>
<td>(IDF 300-2000)</td>
<td>15</td>
<td>Cumbersome</td>
</tr>
</tbody>
</table>

### Grenade statistics.

<table>
<thead>
<tr>
<th>Missile type</th>
<th>Penetration</th>
<th>Frag damage</th>
<th>Blast damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>32mm concussion grenade.</td>
<td>0</td>
<td>N/A</td>
<td>+1</td>
</tr>
<tr>
<td>48mm concussion grenade.</td>
<td>0</td>
<td>N/A</td>
<td>+2</td>
</tr>
<tr>
<td>48mm Fragmentation grenade.</td>
<td>3</td>
<td>-2</td>
<td>+2</td>
</tr>
<tr>
<td>48mm Armour Piercing grenade.</td>
<td>18</td>
<td>(+8)</td>
<td>+0</td>
</tr>
<tr>
<td>ConfFed variable grenade, frag.</td>
<td>3</td>
<td>-2</td>
<td>+1</td>
</tr>
<tr>
<td>ConfFed variable grenade, A.P.</td>
<td>16</td>
<td>(+7)</td>
<td>+0</td>
</tr>
</tbody>
</table>
Missile weapon: **ASSAULT CARBINE**
Caliber: 4, 6 and 8mm
Penetration modifiers: -1 at extreme range.
Handiness: HANDY
Ranges: 20/120/200/300
Magazine capacity: 48 (4/6mm) or 24 (8mm)
Weight: 6mm cal 3, 8mm cal 3.5
Cost: 900-1500

**Description:** A shorter barrelled version of the assault rifle, assault carbines are popular for close in work. More effective at ranged fire than an SMG, assault carbines are found sown through most infantry squads and security teams.
Most assault carbines will have folding stocks. When the stock is folded, the weapon becomes "very handy", but may not be used for aimed fire.

Missile weapon: **ASSAULT RIFLE**
Caliber: 4, 6 or 8mm calibres.
Handiness: AVERAGE
Ranges: 20/120/250/400
Magazine capacity: 48 (6mm cal) or 24 (8mm cal)
Weight: 6mm cal 3.5, 8mm cal 4
Cost: 1000-1600

**Description:** The standard military small arm. Assault rifles are light, robust weapons capable of effective automatic fire out to medium ranges. Assault rifles are military weapons par excellence, and will rarely be available to the public.

Most assault rifles are equipped with folding stocks. When the stock is folded, the weapon becomes "handy", but may not be used for aimed fire.

Assault rifles can be fitted with 48-72 round drums, but at the penalty of reducing their handiness to CUMBERSOME.

Missile weapon: **LIGHT MACHINE GUN**
Caliber: 4, 6mm or 8mm rifle
Handiness: VERY CUMBERSOME (AVERAGE when set up on bipod/tripod).
Ranges: 50/200/300/800
Magazine capacity: 100+
Weight: 6mm cal 8, 8mm cal 10. Spare barrels weigh c.1.5 kg's.
Cost: 1200-2000

**Description:** As a support weapon for infantry squads, the light machine gun reigns supreme. LMG’s may be fired when not set up, with range difficulty brackets identical to the assault rifle. For aimed fire they must be braced or rested somehow. LMG barrels have to be changed every 2000-3000 rounds to allow them to cool, otherwise they receive an increased chance of suffering a breakdown (+1 on the breakdowns chart).

L.M.G.'s may be fitted with a heavy tripod mount (weighing 4 kilos) which provides a very stable base for firing. Tripod mounted machine guns do not receive adverse DRMs for subsequent shots at a target without aiming. Tripod mounted weapons have greatly extended ranges, but their heavy base effectively negates the weapon's recoil. Tripods take 4 actions to set up.

Tripod equipped LMGs may be equipped with a passive coolant system for the barrel and chamber, converting them into sustained fire machine guns (SFMGs). SFMGs weigh 1 kilo more than the normal LMG, and receive a DRM of -1 when rolling on the breakdowns effects chart. With supplemental cooling SFMGs can be fired almost indefinitely without having to change barrels.
Missile weapon: **SNIPER'S RIFLE**  
Caliber: 10, 12 or 16mm  
Handiness: VERY CUMBERSOME  
Ranges: 50/500/800/1000 (10 & 12 mm), 50/500/700/800 (16mm)  
Magazine capacity: 16 (10mm), 8 (12mm), 8 (16mm)  
Weight: 12 (10mm), 13 (12mm), 16 (16mm)  
Cost: 2500-3000  
Description: Semi custom weapons available with just about any combination of features. Sniper's rifles are hyper velocity weapons supported on a tripod mount, designed for use as a high accuracy, single shotcontrolled burst weapon. Due to the hypersonic "crack" of the rounds fired, no silencing equipment is bothered with, but sights are essential to the proper deployment of the weapon. Some models will have the ability to fire automatic bursts. Some sniper's rifles may have electric or external pneumatic operating systems rather than a normal gas/recoil loading.

Missile weapon: **SPORTS RIFLE**  
Caliber: 4 or 8 mm  
Penetration modifiers: -  
Handiness: CUMBERSOME  
Ranges: 20/80/200/300 (4mm cartridge) or 20/100/300/600 (6 or 8mm rifle cartridge)  
Magazine capacity: 16 to 24  
Weight: 5  
Cost: 750-1000  
Description: Also called the "long rifle" when used in a military role, sports rifles are self loading, semi automatic weapons used for rapid and accurate long ranged fire. They are not capable of automatic fire.

Missile weapon: **SHOTGUN**  
Caliber: special (18mm smooth bore)  
Penetration: 3/1/-/-  
Handiness: CUMBERSOME  
Ranges: 20/50/70/100  
Magazine capacity: 8  
Weight: 4  
Cost: 300-700  
Description: A police weapon, the shot gun is a primitive but effective means of delivering a heavy weight of shot against a target. Shotguns fire bunches of flechette's, which spread the round's damage over more than one area at medium & long range. At short range shot has a damage rating of +2. At medium range or further, a hit by a shotgun firing flechettes will attack 4 different hit locations with damage -2 at medium range, damage -3 at long range, and damage -4 at extreme range. Shotguns firing flechettes roll vs 10 (rather than 12) when testing for a hit at medium range. Shotguns have a recoil of 4, and may not use automatic fire. Larger shotguns (24mm calibre) are available which may fire special chemical effect ammunition (incendiary, smoke etc). Their recoil is 5, and flechettes fired by such large weapons have damage ratings 1 higher than the values given for 18mm flechette rounds.

**HEAVY WEAPONS:**

Heavy weapons are used in support of normal infantry sections. Each type of heavy weapon (ie grenade launchers, auto G.L's, missile launchers etc) is its own skill.

Missile weapon: **LIGHT GRENADE LAUNCHER**  
Caliber: 32mm or 48mm GRENADE  
Handiness: -1 from normal weapon handiness rating (ie. "Very handy" becomes "handy")  
Ranges: 20/100/200/300. IDF range = 80 to 500 meters.  
Magazine capacity: 4 (32mm) or 1 (48mm)  
Weight: 3 or 1.3  
Recoil: 1  
Cost: 300  
Description: Used as a supplement to many assault weapons, the light grenade launcher is attached to the underside of assault rifles and the like as an "over and under" attachment. Light grenade launchers project rocket propelled grenades (thus their low recoil). All versions use a manual loading action. This takes two "load" actions in the case of the 48mm I.L.R. version.

Missile weapon: **GRENADE LAUNCHER**  
Caliber: 32mm or 48mm GRENADE  
Handiness: VERY CUMBERSOME  
Ranges: 20/100/200/300. IDF range = 80 to 500 meters.  
Magazine capacity: 4 (32mm) or 3 (48mm)  
Weight: 5  
Recoil: 1  
Cost: 800  
Description: A standard squad support weapon, the grenade launcher is a magazine fed, self loading weapon which projects self propelled grenades out to distances of up to 500 meters. The E.D.F. uses this system in 32mm caliber (projecting variable grenades), while the I.L.R. (and some homeguard forces) use 48mm caliber. The E.D.F. type uses an external pneumatic loading action.

Missile weapon: **AUTO GRENADE LAUNCHER**  
Caliber: 32mm or 48mm GRENADE  
Handiness: CUMBERSOME  
Ranges: 50/200/500/1500 (IDF range = 300 to 2000 meters)
Magazine capacity: 24 round drums (EDF version may mount 2 separate drums)
Weight: 10/8 (unloaded)+ 4 kilo tripod
Recoil: N/A
Cost: 1500-2000

**Description:** A tripod mounted, fully automatic version of the grenade launcher which is used as a platoon support weapon or a vehicle mounted weapons system. When firing a burst of grenades, roll to hit in the usual manner detailed for auto fire weapons, scoring 1 additional hit in the target zone for every 2 points the player rolls under the required minimum score to hit. Missed shots scatter in the usual way.

The E.D.F. type is rather heavy, having a twin feed system for selective fire of AP or fragmentation rounds. The E.D.F. auto GL is pneumatically driven, whereas the I.L.R. version is just an auto fire version of the usual grenade launcher.

**Missile weapon: HEAVY MACHINE GUN**
Caliber: 10mm, 12mm or 16mm
Penetration modifiers: -
Handiness: CUMBERSOME
Ranges: 50/300/500/800
Magazine capacity: 100+
Weight: 10mm/12mm gas/recoil = 14
10mm/12mm Pneumatic or electric = 16
16mm Pneumatic or electric = 18
+ add tripod of 4kg's or heavier
Cost: 1500-2200

**Description:** A common military vehicle armament and company support weapon, the HMG fires large saboted slugs at velocities designed to do cruel and rude things to the target's body.

The E.D.F. uses 2 versions of these weapons - Gas recoil operated versions in 10mm or higher calibre, and powered versions. All I.L.R. heavy MGs have externally powered actions.

An HMG is of no real use in the anti-vehicle role due to the high protective qualities of monomolecular laminate armour. The HMG cannot be fired unless properly supported on a pintel or tripod mount, whereupon it shares the firing characteristics of a SFMG.

**Missile weapon: "MAN" PORTABLE MISSILE LAUNCHERS**
Caliber: LIGHT M.S.
Handiness: VERY CUMBERSOME
Ranges: 100/500/3000/4000
Magazine capacity: 1
Weight: Grip/sight unit = 1.2 kilos. Missiles weigh 6 to 8 kilos+

**Recoil:** 0
Cost: Grip/sight costs 300. Missiles might cost several thousand credits apiece.

**Description:** Pre-packaged missiles in a disposable launch tube which may be attached to a grip/sight unit. This type of weapon system can fire a variety of smart or dumb missiles in the anti air, anti armour, chemical effect and high explosive categories. When firing in direct fire mode (eg. with a "dumb" HE round), use the range brackets for sniper's rifles. "Smart" rounds act as described under the vehicle combat rules. It takes three actions to load a P.M.L., one to aim it, and one to fire it.

**MELEE WEAPONS**
The starfaring culture of ALBEDO lacks primitive martial arts traditions, never having passed through periods of medieval technology. The melee weapons available to characters are thus confined to the simplest, most practical of types.

**Edged weapons.**
**Melee Weapon:** BITE
Damage: -3 or -2 (for "carnivores")
Penetration: 1
Length: 0 or 1 (for ratite descended avians)
Weight: N/A
Cost: N/A

**Description:** Most critters have a fairly good set of teeth, which can be used to good effect in a brawl. When a critter has grappled an opponent, he or she may opt to use a bite as its next action. The bite will succeed on a roll of the character's co-ordination or coolness under fire vs 10. Such bites will roll 1D2 for hit location. Ratite descended avians may use a bite attack in much the same manner as a punch. The damage of a bite attack is multiplied by 1/10 x the attacker's strength.
**Melee Weapon: KNIFE**
- **Damage:** 0
- **Penetration:** 2
- **Length:** 0
- **Weight:** NEG
- **Cost:** 25-250

**Description:** Small edged weapons with light blades. The typical knife has a blade length of c.15 cm's. This class of weapons includes flick knives, clasp knives, boot knives etc.

**Melee Weapon: HEAVY KNIFE**
- **Damage:** +1
- **Penetration:** 3
- **Length:** 1
- **Weight:** .3
- **Cost:** 100-250

**Description:** Larger, heavier knives (such as bowie knives, tanto's, long daggers and such). Due to the length and breadth of their blades, these weapons are capable of dealing a far nastier wound than their smaller cousins. When placed on the end of a rifle or SMG, knives become a bayonet, and become a length 3 melee weapon. Bayonets have a penetration of 4.

**Melee Weapon: MACHETE**
- **Damage:** +2
- **Penetration:** 2
- **Length:** 2
- **Weight:** .6
- **Cost:** 20-50

**Description:** Large, broad bladed knives designed for cutting and chopping. They are common tools, but are quite capable of severing a person's head from their shoulders.

**Melee Weapon: AXE**
- **Damage:** +3
- **Penetration:** 3
- **Length:** 3
- **Weight:** 2.5
- **Cost:** 50-75

**Description:** More common as a tool than as a weapon, the axe exists in ALBEDO as a common implement in any tool shed, and thus is included here as a possible improvised weapon. Axes use column 2 on the damage determination chart.

**Impact weapons.**
**Melee Weapon: FIST/KICK**
- **Damage:** 0
- **Penetration:**
- **Length:** 0 (punch) or 1 (kick).
- **Weight:** 0

**Description:** Any blow with the fist or foot. Punches delivered by critters of ungulate descent have a damage rating of +1, while punches delivered by avians have a damage of -1. Non ratite descended avians have the option of delivering a wing buffet, which has a range of 2 & a damage of -3. Kicks are dealt with a higher strength than punches (+1 damage), but have a +1 DRM on the character's roll to hit. Kicks use a 1D10 hit location, but with a modifier of +4. Treat a hit in locations 9 or 6 as a strike to the abdomen. Non Ratite descended avians have a kick range of only 1.

**Melee Weapon: CLUB**
- **Damage:** 0 to +2
- **Penetration:** 0
- **Length:** 2-3
- **Weight:** 1
- **Cost:** ?

**Description:** Wrenches, pipes and pieces of 4 x2. This category covers most improvised impact weapons.

**Melee Weapon: FIGHTING STICK**
- **Damage:** +1
- **Penetration:** 0
- **Length:** 1 to 3
- **Weight:** 1/2 (practice stick) or 1
- **Cost:** 12

**Description:** A metre long staff which is used in the martial art of stick fighting. Practice sticks are padded plastic rods, while the combat version is of more solid construction. Practice sticks cause no damage to the target when they hit, but will instead deal 1 point of fatigue.

The fighting stick is a versatile device which may be used as a length 1, 2 or 3 weapon. At length 3 it is used for thrusting, and uses damage column 3 on the damage determination chart. At other ranges it is swung, and therefore uses damage column 4.

**MISCELLANEOUS COMBAT EQUIPMENT.**
The following systems are designed to be added to the missile weapons detailed above. Many weapons are designed with such equipment already integrated into the weapon's basic configuration. Such weapons are notably lighter than those which are not specifically designed to include such equipment.

**Gas compensator.**
- **Cost:** 100
- **Weight:** .3

**Description:** Despite the good muzzle brakes fitted to all firearms, the recoil of any gun under zero-G conditions makes them very difficult to control. A gas compensator is a clip on unit designed to balance the recoil of firearms with a backwards blast of compressed gas. Useful only in zero-G, weapons not equipped with compensators under such conditions...
receive an extra +1 accuracy DRM for any unaimed shots, and add one to their effective recoil rating. Stabilizer cartridges hold gas sufficient to counteract the effects of 8 shots. Spare gas cartridges cost 10 credits and weigh .1 of a kilo.

Smart sights.
Cost = 500-1000
Weight: .5
Description: Targeting computer assisted sights linked with a laser range finder which automatically adjust for the range of the target, windage etc. Smart sights give the same firing bonuses as telescopic sights, but also double the extreme range of direct fire weapons when an extra action is spent on aimed or carefully aimed shots. Smart sights will only give a bonus to weapons which have a firm, stable base (ie a tripod). Weapons equipped with smart sights subtract 1 level from their handiness rating when firing aimed shots.

Telescopic sights.
Cost = 250-500
Weight: -neg
Description: Telescopic sights increase the shooter's accuracy at long and extreme ranges by granting the shooter a -1 DRM to hit on any aimed shot with direct fire weapons. Telescopic sights are a standard fitting with military long arms, but players may wish to add them onto sporting weapons etc. Telescopic sights are often fitted with C.C.D. lenses to make them efficient night fighting aids. Many telescopic sights are capable of being dismounted from weapons and used as a hand held telescope, often with the addition of a light pistol grip.

Flash suppressor/recoil compensators.
All firearms have an integral flash suppressor/recoil compensator. This fitting can be removed, increasing the weapon's effective recoil by 1, but lightening the weapon by 5% and reducing its length. Weapons modified in this way tend to be "jumpy", and have an unpleasant muzzle blast.

E.D.F. and I.L.R. equipment summary.
E.D.F.
Standard small arms caliber: 8mm dart
Grenades: 32mm variable
Vehicles: Usually tracked
Body armour: Flak armour & battle helmets (vacc suit helmets for officers). Ballistic cloth fatigues worn in high threat situations.
Personal communicators: Helmet mounted.
Comments: A variety of lighter small arms calibres are available for use by the more lightly built elements of the E.D.F. soldiery. E.D.F. units usually carry a minimum of specialized weapons of any kind. Often only one or two types of ammunition (eg rifle and pistol) and a few types of interchangeable weapons are carried. All E.D.F. equipment is designed to contribute to the E.D.F.'s role as a flexible, highly mobile, rapidly deployable force.

I.L.R.
Standard small arms caliber: 6mm dart
Grenades: 48mm
Vehicles: Usually wheeled
Body armour: I.L.R. body armour & battle helmets.
Personal communicators: Usually head set mounted
Comments: The I.L.R. organisation at unit level makes great use of specialized weapon types. Units might include specialist snipers armed with long rifles, SMGs etc. Unlike the E.D.F., each individual is responsible for his own maintenance requirements and ammunition supply. Munitions and weapons types tend to be tailored for the type of operation expected.
Common use long arm (no longer produced, but still available)
8 mm L56 (Lengths to L60 available)
8x56 cased ammo (6x56, 6x60, 8x64, and larger available)
Fixed stock. Short magazine.
Low light telescope with laser rangefinder

EDF Standard Arm
8mm L56 8x56 cased ammo
Sliding stock (extended) Standard magazine.
Laser spot and ring-and-post sight.

EDF Commanders Arm (machine pistol)
6mm 8x24 cased ammo (8x32 version available)
Laser spot

ILR or Homeguard Bullet Projected Grenade
AP/Frag selectable, AP, HE, Frag, or Special Effect types available
Can be fitted and launched from any muzzle-shrouded weapon

EDF Automatic Grenade Launcher
32mm self-propelled Grenade
Two ammo boxes
(only select different types of grenades)
Tripod with compressed air supply for feed action. Bi-pod or pintle mounts available.
(uncommon in EDF use, more common in Homeguard service)

EDF Short Arm (assault weapon)
8 mm L30 8x56 cased ammo
32 mm Grenade launcher fitted.
Sliding stock (retracted). Long magazine.
Laser spot and reflexed overlay sight (off-set for grenade fire)

EDF Standard Machine Gun
8mm L60 8x56 cased ammo (8x64 version available)
Fixed stock. Belt or high-capacity magazine feed.
Bi-pod. Ring-and-post sight.

EDF 32mm Variable Grenade
AP/Frag selectable
Thrown or self-propelled

ILR or EDF 40mm Variable Grenade
AP/Frag selectable
Thrown or self-propelled

ILR or EDF 48mm Hand Grenade
HE, Frag, or Special Effect types available
Thrown or can be fitted with tailpiece for bullet projection

Common use pistol
6mm or 8mm cased ammo (caseless ammo versions also)
Standard magazine
Sighting ramp or blade-and-notch (laser spot can be fitted)
ILR Standard Assault Weapon
6mm L50 6x40 caseless ammo
40mm Grenade launcher fitted
Folding stock (extended) Long magazine
Laser spot and "snap shot" sight

ILR Standard Assault Weapon
6mm L50 6x40 caseless ammo
Folding stock (folded) Standard magazine
Laser spot and short sight

ILR Special Weapon
6mm L80 6x40 caseless ammo
Telescoping stock (extended) Standard magazine
Laser spot end low light telescope
Optional bipod fitted, metal fore-grip/telescope mount
(can be fitted with vertical pistol grip/ammo feed for high-capacity magazine)

ILR Special Weapon
6mm L30 6x40 caseless ammo
Telescoping stock (retracted) Special high-capacity magazine
Laser spot and low light telescope
With stock removed, can be used as heavy machine-pistol

ILR Special Weapon
6mm L100 6x40 caseless ammo
Sliding stock (retracted) Special high-capacity magazine
Laser spot and low light telescope

ILR Standard Machine Gun 1
6mm L80 6x40 or 6x60 caseless ammo
Folding stock (folded), belt or high-capacity magazine feed
Bi-pod is standard, but tri-pod or pintel mounts available
Reflexed overlay sight with laser range finder

ILR Standard Machine Gun 2
6mm L60 6x60 caseless ammo
Telescoping stock (extended), belt or high-capacity magazine feed
Bi-pod is standard, but tri-pod or pintel mounts available
Laser spot and ring-and-post sight
As in the previous books, I've made last-minute amending comments on the game, and here I am again. Throughout the text, we've been talking about the differences between the scenario's socio-cultural situation and ours. Yes end no. As mentioned in the introduction to book 2, there is a lot of computers and access to data and computer supported systems, much of which, at least in the inner ConFed worlds, is open to the general public. In such an information-rich environment, combined with the generally high level of education, the population is exceptionally well-informed and active in the processes effecting the social and political situation.

However, this is not to say that everyone has the same opinions as to what's right and wrong, which ends up being a large part of what makes the action in the scenarios. But there's more to all this than political intrigue, and that's the hard part to describe: Like going overseas, then trying to explain the difference of the "feel" of the place. It's easy to point out differences in details, favorite foods, election procedures, dress codes, but hard to get across the general living attitudes and how the local mind-set colors everything from day-to-day mundane tasks to momentous historical events. So, I'm kind of stuck.stressing, In broad, general terms, what the real differences are between Erma's worlds and our own (compounded by the fact that many common assumptions here in Seattle don't work in Melbourne any better than they would in Tokyo, Hull, or Helsinki, or even Miami, Los Angeles, or Noule Havam). A large part of the difference in basic mind set to keep aware of is that the society has virtually no history, no body of traditions or cultural roots to base their day-to-day on.

Early on, individual conduct — and all the rules and assumptions that go with interpersonal action — was just simply golden rule, common sense type things. No one should go around hurting others, stealing personal items was a no-no, tossing paupula out airlocks without good cause was frowned upon, that sort of thing. Other details took into account many of their physiological characteristics. For example, among many of the species, sexual interest in the male comes about only after the female goes into estrus, and by sign or pheromones, makes it clear she's interested. Such would make, say, simple nudity, much less provocative and sex-sagparate toilet or bathing facilities unnecessary. On the other hand, sex discrimination in the work place can be a problem, unfairly assuming that females become unreliable and destructive when in season. Such concern is doubly unfair, considering that most species have at least some level of voluntary control of their sexual processes, and even in the midst of such a period, most have no obvious behavior changes and pheromones are easily masked. (The arguments are similar end as invalid as those against women and PMS behavior.) While on the subject, most females have some control of their fertility (as do some of the original species they are based on) and issues of birth control are left to the individual, though most of the planets encourage and vigorously support lots of offspring, as most developments and colonies are under-populated.

Lacking religion, marriage takes the form of contracts in those states that need formal paperwork, while simply living together in various arrangements is common elsewhere. These arrangements often follow the species' pre-sentient origins, like wolves collecting together large extended families which function much like their ancestral packs, or among horses, a single stallion collecting a harem of mares. There are also many "monogamous" families, though a new couple is more likely to share housing with parents or other family for mutual social support. The notion of newlyweds moving to the suburbs, putting distance between themselves and inlaws, is largely foreign, except in some colonial situations intant on population dispersal. Even without the institutionalized roles on who should or shouldn't be doing what to whom, conspicuous promiscuity is not much of a problem. This is due, in large part, to the recognition of its socially disruptive potential; thara is encouragement towards practical responsibility and, as necessary, a touch of psychological hygiene. In fact, most of what we would consider enforceable laws are handled as social guidelines, and infractions are considered behavioral aberrations needing counseling or therapy rather then crimes to be punished. (The heated debate over the "source" of homosexuality precludes my comments on such.)

Serious crimes, especially those by dedicated criminals not previously discouraged by earlier intervention, are dealt with rather harshly. If, with examination, it's shown that the individual can be rehabilitated after reconditioning (effectively brainwashing) without compromising the individual's "saltness", since the state has no desire to create law-abiding zombies, such is done. But, as often as not, serious sociopaths are incurable and, if considered an ongoing threat to safety, are executed. Nearly no system has prisons in the normal sense, and the idea of punishment by imprisonment is considered both counter-therapeutical and wasteful.

In the sticky situation of political opposition, the individual governments can react with anything from accommodation to "vigorous encouragement" of immigration, depending on the situation. Terrorism, however, is not tolerated, and any life-threatening act is a capital offense.

**ALBEDO ROLE PLAYING GAME, BOOK 3: REFEREE'S MANUAL.** Published by THOUGHTS & IMAGES, P.O. Box 15168, Portland, OR 97215, U.S.A. Game design copyright © 1988 by Paul Kidd, edited by end text copyright © 1988 by Steve Gallacci. Orders and business inquiries should be directed to the Portland address. Comments on the game should be sent to P.O. Box 19419, Seattle, WA 98109, U.S.A. and will be forwarded to Paul Kidd or Steve Gallacci. Printed by Velco Graphics, Seattle. Typeset by RocketType, Seattle (except for what Paul did on the "Mac"). Game box by Northwestern Paper Box Co., Seattle. Production assistance by Cindy Murata.
In general, the inner worlds tend to be more conscious of individual behavior and how it interacts with society. Personal psychological hygiene exercises are common and the individual is conscious of how his/her behavior impacts others. At the same time, aberrations are quickly noted, and the atmosphere can be a bit oppressively conformative and conspicuously “well-adjusted.” Such worlds usually are more tolerant towards computer security surveillance as well, and with that there is a risk of complacency or over-dependence. The latter is illustrated in the Erma story, with Commander Felna’s excessive concerns and doubts about public order and safety in outworlds that do not have such an intensive system, having come from a world that is almost an archetype for controlled environment. The other half of the hazard, complacency, arises from the assumption that the supervision is benevolently all knowing. So the oversight of the monitoring risks becoming inattentive, allowing for abuse of neglect, and individual conduct can become careless, and even reckless, expecting a save by the system.

Many outworlds have actively rejected such intrusive or perceived anti-individualistic systems and have little or no formal social control, varying from “libertarian” minimalist governments to virtual anarchies. An odd twist to the desire for limited state control are the several colonies established by private business concerns, in which the company assumes the role of state, and the people managed solely as employees. While the individual is subject to the paternalistic whim of the employer, such systems are more popular for the time being than might be expected.

The larger portion of colonies, despite comments to the contrary, simply have yet to settle into distinct independent patterns and create a new generation of orthodoxies. The trend, so far, has been that as colonies age and evolve, unique cultures arise, but, dependent on their political relationship to the earlier home worlds, their forms of government tend to become even more orthodox than, or antithetic to, the originating state systems.

That should give you a slightly better idea of how things work, and we’re already working on an extended description of many key systems, outlining the social and cultural details for more complete environments to function in.
Little did I know that a terrorist sniper was setting up in town.

She'd brought in a 10mm L150 electro-automatic rifle and had it in a suite in the one business tower.

Power-assisted tripod, 10cm scope. It was quite a rig.

**SPECIAL BACKGROUND INFORMATION**

The following information is intended for the eyes of umpires only. Detailed below are the basic internal politics which the umpire should use to add depth to campaign events.

**E.D.F. Internal politics.**

The E.D.F. of the previous generation was an idealistic organisation filled with young, bright individuals determined to do good. Once peace came, however, a few individuals saw opportunities for privilege and status, and began to ignore the old ideals.

The E.D.F. today still maintains the facade of absolute adherence to its professed ideals, and for many members the E.D.F. creed is alive and well. There is however a proportion of officers who use the E.D.F. as a means of personal aggrandizement, and some of these individuals have undeservedly reached positions of power and influence, despite the best efforts of the Net (see below). The final result is the creation of undercurrents of opinion throughout the E.D.F. One of the strongest and least defined elements is a conservative element which embraces a number of sexist attitudes, which has already caused trouble for female combat officers such as Erma Felna.

The result of these internal E.D.F. politics in game terms can be bewildering and dangerous. Characters who express embarrassing attitudes, who cross the wrong people or who acquire delicate information might find themselves transferred into virtual exile, or given unfavorable psych reports.

Always remember that there are lots of genuinely devoted and responsible officers in the E.D.F. who hold to the old ideals and are loyal to the ConFed charter. The E.D.F. is not dying - it is just under serious threat from within.

**Separatists.**

Numerous systems within the ConFed have factions which advocate a weakening or breaking of ties with the ConFed. This concept is quite popular on outward planets, where a sense of post-colonial independence has had a large effect upon the local mentality. Separatists fear that a strengthened ConFed central might seek to impose close security monitoring on all ConFed worlds, and deny ConFed planets their self rule. Many outward planets view the disintegrating
relations between the I.L.R. and ConFed with unease, and fear the use of outworld soldiers as colonial cannon fodder by the ConFed military machine. Outworld trust in the ConFed has suffered recently due to the fiasco at Derzon, where the E.D.F. reaction to the I.L.R. invasion caused massive civilian losses and destroyed the local economy.

Extremist groups on many worlds might go to just about any length to turn public opinion against the ConFed. This can form the driving force behind any number of adventures.

Centralists.
Another extremist viewpoint, this time common in the ConFed inner systems. Centralism is simply the belief that the ConFed should take a more rigid control over member worlds, and impose standardized government, law and internal security. As such, the centralist viewpoint goes against the spirit of the ConFed charter, which guarantees the inviolable independence of member worlds.

Centralist sentiment is not organised (excepting the possibility of centralist sentiments amongst E.D.F. factions - see above). Centralism and separatism tend to fuel one another. It is the fear of centralism which gives separatism its popular appeal. On the other hand, as separatist sentiments breed civil unrest and violence, the centralist sentiments of inner system citizens can be aggravated.

Terrorism.
Any of the social tensions listed above (as well as numerous other socio-political factors) may breed terrorism. Terrorism may range from criminal acts, bombings and snipings right up to nuclear blackmail. Terrorism combined with mislead or biased media can be a powerful tool for influencing popular opinion. Recent ploys in Ekosiak revolved around using the media's separatist sentiments to convince the populace that a recent attempt at nuclear blackmail had actually been staged by the ConFed authorities to rationalise the need for tighter security measures.

Terrorism is far less common on worlds which have extensive security monitoring systems, but the populations of outworlds will not suffer the loss of privacy which security monitoring seems to entail. Terrorist acts in monitored environments must need to be carefully planned, and might well rely upon mental conditioning to defeat computer surveillance, which can notice aberrant behavior.

One interesting and dangerous organisation requires special mention. Several seemingly pointless and
unconnected acts of terrorism have been the work of some sort of terrorist cult, which seems to be intent on keeping a dangerous edge on society. They have no other apparent political motivations, and strike within I.L.R. space as often as ConFed or independent Rim space. They always engage in overt, public violence, and never sabotage or covert actions. Since their acts are usually suicidal, very little else is known about them, though it is hoped that, though widespread, there are very few of them.

The Net:
ConFed central is overseen by the Net, an artificial intelligence which has been in existence ever since the awakening. It is a single, centuries-old entity. Each ConFed planetary system has a main computer Net manager which is a duplicate of the original model in the core systems. These computers have the same base personality as the central Net, modified by the experience and data bases which each computer has accumulated.

Unbeknownst to even the government, these artificial intelligences bring to bear a considerable amount of influence over day to day affairs. By making various sets of data more or less easily accessible to various parties, the Net seeks to further its goals of progressive, peaceful social order. Although it does not have any particular motive or master plan, the Net seeks to advise and assist chosen people who are supporting and encouraging the ideals of the ConFed charter and related efforts. The Net also works towards the moderation of individual success, attempting to prevent the unconstructive domination of any single personality over vital affairs.

The Net will actively participate in effecting the personal fortunes of those individuals who stand to best serve "the cause". The intervention of the Net into day to day affairs is extremely subtle. The computer is constrained from direct action, and thus can only cause other people to perform their information gathering more or less easily than normal. The Net will secretly help the advancement of the truly deserving by jockeying administrative selections, encouraging a favourable bias on the part of an instructor - all minor acts with small individual impact.

While not exactly illegal in the letter of the law, the computer's meddling in affairs would be widely disapproved of if discovered. While a few of the Net's "chosen" know about the Net's activities, they have kept the Net's secret. Umpires may feel free to use the Net's subtle influence in important affairs. The Net will help out characters who seem to support the Net's aims.

The Republic:
An aggressive and cunning government, the I.L.R. is currently dominated by its militaristic factions, all of whom are in favour of expansion.

The I.L.R. faces a dangerous and delicate situation. Officially the I.L.R. has no enemies, and the military adventurism of the Republican government is not known to the average citizen. The I.L.R. faces in the ConFed an overwhelming opponent, but an opponent
which can weaken itself from within. In order to successfully expand, the I.L.R. must hope for the ConFed to tear itself apart through internal conflict, and I.L.R. agents stand ready to assist this process in any way possible.

While the I.L.R. military are willing to come to grips with the ConFed, the I.L.R. populace are not currently keen on the idea of a new war with the ConFed, since the Republic is seriously outnumbered. Any outbreak of hostilities with the ConFed would require the populace to be suitably motivated ...

Please remember that the I.L.R. are not "evil". The republicans are doing what they are doing for what they consider are the right reasons. Their aims and means seem correct within the reference of their own world view.

Third parties.
A number of unscrupulous individuals stand ready to capitalize on the current social and political tensions. Easily disguising their actions as those of the I.L.R. or ConFed, clever and unprincipled individuals and organizations have begun to engineer civil unrest, revolution, piracy - just about any ploy which can play on the fears, confusion and tensions of the citizenry and the authorities.

An example of just such an incident is the recent unrest and violence on Ekosiak, which was masterminded by Alto Kho, a local business magnate who hoped to remove the previous political order and lead the business community in rebuilding Ekosiak's socio-political structure. The situation was only solved by dissemination of evidence of Alto's actions and goals on public nets followed by his assassination.

Humanity.
Human kind was once present in this area of space. It is possible for characters to encounter alien artifacts which are hundreds of years old. Such products of ancient human technology are a generation in advance of the current systems known to science.

It is possible to create adventures along the lines of exploring alien artifacts. Be careful about using this kind of story line, since the discovery of alien presence will have serious technological and psychological repercussions.

Notes.
To the casual eye, the society of ALBEDO is neat, well ordered and predictable. A closer examination will reveal otherwise. Stellar civilisation is reaching a crisis point, and the escalating social and political tensions may catch players by surprise. In a rational society, acts of violence and irrationality should seem all the more shocking.
FATIGUE, WEIGHT BEARING AND ENCUMBRANCE:
A character's capabilities will be affected by encumbrance, burden and fatigue. Fatigue may occur as a result of performing actions, as well as resulting from pain and shock. Burden (see section 2.3 below) and encumbrance occur only by carrying objects. Burden, encumbrance and fatigue must be carefully recorded for every character, as these qualities have a very noticeable effect on the character's performance.

Encumbrance and Weight:
Characters may be discomforted by bearing heavy weights. A character's basic weight bearing capacity is rated as equal to its strength +1 in kilos. A character's penalty caused by the bearing of weight is referred to as the character's BURDEN, which is expressed as a number between 1 and 4.

<table>
<thead>
<tr>
<th>Burden level</th>
<th>Weight carried by character</th>
<th>Co-ord/M.Dex penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 0</td>
<td>Up to 1/2 base weight allowance.</td>
<td>-0</td>
</tr>
<tr>
<td>Level 1</td>
<td>&gt; 1/2 base weight to full base weight capacity.</td>
<td>-0</td>
</tr>
<tr>
<td>Level 2</td>
<td>Up to twice base weight capacity.</td>
<td>-1</td>
</tr>
<tr>
<td>Level 3</td>
<td>Up to 4 times base weight capacity.</td>
<td>x 3/4</td>
</tr>
<tr>
<td>Level 4</td>
<td>Up to 6 times base weight capacity.*</td>
<td>x 1/2</td>
</tr>
</tbody>
</table>

* Requires a strength test vs the item's weight (in kilos) on 5 to carry the object, or strength vs item weight (in kilos) on 10 to simply pick it up. The max weight that may be carried for more than a couple of meters is 10 kilos x the character's strength rating.
Fatigue loss caused by movement.
The following chart details the fatigue points lost for travelling the specified number of metres distance.

<table>
<thead>
<tr>
<th>Burden lvl</th>
<th>Walking</th>
<th>Running</th>
<th>Sprinting</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-</td>
<td>1 per 50 metres</td>
<td>1 per 20 metres</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>1 per 40 metres</td>
<td>1 per 10 metres</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>1 per 10 metres</td>
<td>2 per 10 metres</td>
</tr>
<tr>
<td>3</td>
<td>1 per 20 metres</td>
<td>2 per 10 metres</td>
<td>3 per 10 metres</td>
</tr>
<tr>
<td>4</td>
<td>1 per 10 metres</td>
<td>3 per 10 metres</td>
<td>5 per 10 metres</td>
</tr>
</tbody>
</table>

Weight distribution of worn items:
Items of clothing or armour worn on a character's torso weigh half their normal weight for the purposes of calculating burden effects due to the distribution of the weight over the carrier's body.

Burden effects:
The burden level caused by bearing loads in combat is specified on the chart below. A character's burden is found by examining what multiple of its basic weight bearing capacity it is currently carrying (see the "burden effects" chart).

Encumbrance:
Some types of armour or clothing will encumber the wearer due to their restriction of the wearers' movements. The encumbrance of the equipment is subtracted directly from the wearers' co-ordination.

The astute will notice that both burden and encumbrance subtract from the characters' co-ordination. This results in a loss of ability in any of the characters' skills which have co-ordination as one of its governing characteristics.

Example: Auitzotl is forced to bail out of his vehicle, and the umpire decides to total up the weight he is carrying and check on his burden level.

Auitzotl is currently wearing a vac suit liner, boots and gloves and a helmet liner, all of which are of negligible weight. He wears a suit of flak armour weighing 3.5 kilos (this weight is now halved since he wears the armour on his torso). Other items include a visorless vac suit helmet (.9 kilos), an 8mm caliber assault carbine (3.5 kilos), 4 x 32mm grenades (at .25 kilos each = 1 kilo), a full water bottle (1 kilo) , a packet of survival rations (.2 kilos) and 2 spare magazines for the assault carbine (each magazine weighs .40 kilos). Thus the total weight borne by our furry friend is $1.75 + .9 + 3.5 + 1 + 1 + .2 + .8 = 9.15$ kilos. Auitzotl's strength of 9 gives him a base weight carrying capacity of 10 kilos. The weight he is currently carrying falls between the 1/2 to 1 x base carrying capacity range. Auitzotl is thus rated as having a burden level of 1.

FATIGUE:
As characters perform actions which tire them out, they become fatigued. This process is simulated by the accrual of fatigue points, which represent increasing levels of tiredness and exhaustion. Fatigue points may also be gained through blood loss and other causes of shock.

The movement caused fatigue loss chart sited above specifies the number of fatigue points lost when a character walks, runs or sprints while carrying various levels of burden. Fatigue is also caused by melee combat (1 point per turn for characters who fight defensively, and 2 points per turn for characters who are fighting offensively). Fatigue is directly related to the character's stamina.

Fatigue will be proportionally higher in hot sunlight, or when performing such exercises as walking through soft sand or snow.

Fatigue causes the temporary downgrading of a character's abilities. Every time the character accumulates fatigue points equal to half the character's STAMINA rating it is penalized by a cumulative fatigue DRM of +1 to all dice roll attempts for tasks, characteristic checks and co-ordinate actions. Fatigue DRM's will accumulate as the character tires, and disappear as the character rests (exception: Fatigue caused by shock will not disappear within the time span covered by a combat).

Effects of fatigue:
When a character's Fatigue DRM reaches +4 (ie the character's fatigue points total is equal to twice its stamina score), it is exhausted or shocked, and must make a drive check vs 10 in order to perform any
actions (including standing up or walking). At a DRM of +5, the character is unconscious, and at a DRM of +6, the character is dead.

Fatigue recovery:
Before exhaustion sets in, fatigue suffered from the performance of actions may be recovered in a short enough time period to be simulated during a combat. The character may recover 1D3 fatigue points in a combat turn in which it does nothing other than rest, and 1 point in a turn in which it walks (for burden levels 0, 1 and 2), but only if the character is not bleeding (see the rules covering damage and injury). Characters who have suffered any wounds other than a graze recover lost fatigue at half the above stated rate. Other fatigue recovery is assumed to take place over a period of minutes or hours, however the umpire feels is appropriate.

Fatigue caused by long term activity:
Characters may also suffer fatigue effects from performing tasks or through other long term activities.
- If a character has been performing a slightly strenuous or prolonged activity such as walking for a couple of kilometers, walking a lesser distance carrying a level 1 burden, driving a vehicle for a fair while or performing first aid, it may become slightly fatigued. Roll the character's stamina vs 10. A failed roll will result in the character accumulating fatigue points equal to its stamina divided by 2.
- If a character has been doing hard work (ie carrying heavy loads, digging etc), it will automatically accumulate fatigue points equal to half of its stamina score, and must roll its stamina vs 10 to avoid doubling this amount of fatigue. If the dice roll is failed, roll again to avoid receiving a further fatigue loss (bringing the total fatigue accumulated to 1.5 times the character's stamina).
INTER PERSONAL RELATIONS

ALBEDO seeks to provide all characters with personalities. This is done for three reasons:

a) By giving personality traits to player characters, the character takes on a little extra "depth". The player must now take into account the disposition, goals and aims of the character itself.

b) By giving personalities to non player characters, the umpire's job is made easier and the player's tasks become more challenging. Every encounter will be shaped by the personalities of the individual characters involved.

b) By entering into the realms of inter personal relations, this game seeks to remove the notion that characters are mere robots designed to pull triggers.

ALBEDO is a conflict game, and not a combat game. In making allowances for personality development and inter personal relations, this game seeks to move into a new sphere of conflict. While seldom lethal, inter personal conflicts can be expressed in workable game terms, and can prove to be highly entertaining.

DISPOSITIONS:
The first aspect of inter personal relations simulated by ALBEDO is character dispositions. All characters and N.P.Cs must roll twice on the dispositions chart in the player's manual.

Dispositions should also be rolled for communities and organizations. Thus a character might find itself in a village that is generally "talkative", whereupon he will probably be set upon for news and gossip, or in a "straightforward" army base, where the character will only gain real acceptance as it demonstrates its competence at its job. Community dispositions are vital to the establishment of entertaining campaign environments.
TIES AND ANTIPATHIES:
The second aspect of interpersonal relations simulated by ALBEDO are personal ties and antipathies. This allows an umpire to simulate the friends, enemies and beliefs of a character in simple game terms.

A tie is a feeling of friendship, loyalty, respect or duty towards a person, a nation, a group or an idea. An antipathy is a feeling of distaste, disgust or aversion to one of the above concepts.

Ties/antipathies are treated very much like skills, having both a governor and a "training" level (in this case termed experience). As a person acquires positive and negative experience with the people/concepts around him, the strength of feeling (ability score) which he has towards them will be effected. Index the governor with the level of experience on the skill ability chart to find the strength of "feeling".

The governor of all ties/antipathies is equal to the character's DRIVE.

Experience in ties/antipathies is given in terms of "positive" and "negative" experience. Positive and negative experience is added directly to the character's experience total in a tie/antipathy. When a tie or antipathy goes into negative experience, it inverts (ie a tie becomes an antipathy). Drop the negative sign to determine the experience level used in determining the new tie/antipathy strength.

Starting tie/antipathy experience:
Unless a person grew up sealed in a wicker basket, he will normally have a number of ties and antipathies. Starting characters will have about 3D6+20 tie/antipathy experience levels to commit to its ties and antipathies at the start of the game (characters may take a dice more or less at the players' option). These experience levels are committed only to things which might effect the game - there is no choice detailing out the character's ties to its parents when they are parsecs away from the intended sphere of action for the up and coming campaign.

Sample entities with which characters might develop ties or antipathies include:

- Another character (eg a friend, enemy or lover).
- A military or civil service.
- An ideology (eg a devotion to the ideals of the ConFed charter).
- A race (eg the character hates rabbits).
- A world or Government (Well, not everyone loves Dornthantiil)
- an abstract phobia (eg fear of heights or cyberphobia)

Players should be discouraged from having their characters take a tie with themselves, since this is already covered by giving the character a conceited disposition.

New ties and antipathies: When characters are first given the opportunity to form an opinion about a person or organisation, roll the character's STABILITY vs 10 on the comparison chart. A failed roll will give the character 1D6 of positive or negative experience in the new tie/antipathy. Successful rolls cause no change to the character's feelings.

Changes in ties and antipathies: Changes in a character's experience level with ties and antipathies are closely tied to the character's stability characteristic. As characters receive positive or negative impressions of the elements to which they have ties or antipathies, have the player roll on the following chart to determine the subsequent changes to the character's experience with the relationship.
Tie/antipathy experience chart:

<table>
<thead>
<tr>
<th>Roll on 2D6</th>
<th>Tie/antipathy experience change</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 7</td>
<td>No change</td>
</tr>
<tr>
<td>8 to 9</td>
<td>+/- 1D2</td>
</tr>
<tr>
<td>10 to 11</td>
<td>+/- 1D3</td>
</tr>
<tr>
<td>12+</td>
<td>+/- 2D3</td>
</tr>
</tbody>
</table>

DRM's:
- Stability = 0 to 5: +3
- Stability = 6 to 8: +2
- Stability = 9 to 11: +1
- Stability = 12 to 13: 0
- Stability = 14 to 15: -1
- Testing vs a minor event: -2
- Testing vs major event: +3

Major emotional events: Certain crises may trigger far greater changes to tie/antipathy experience levels than stated above (such as discovering that your lover is not quite the wholesome, upstanding person you thought they were). In such cases, double the character’s experience changes resulting from the tie/antipathy experience roll.

To simulate the emotional confusion caused by nasty revelations, the umpire may decide to see-saw ties, antipathies and self image up and down several times before reaching a final result.

FAVOURS:
When a character approaches an N.P.C. to request a favour, the N.P.C.'s tie strength with the the character may be used to determine whether or not the favour will be granted. Roll the N.P.C.'s tie strength with the character vs the difficulty of the favour, a successful roll meaning that the favour is granted:

Difficulty levels of favours:
- Very simple favour (often expected as a social nicety): 2
- Minor favour (no real trouble to perform): 5
- Major favour (definitely inconvenient to perform): 10
- Very difficult or dangerous favour: 20

The above system may also be used to check for spontaneous actions which might be performed by an N.P.C. Non player characters who have formed a good impression of a player character might do favours for the player character entirely by their own initiative (ie offers of assistance, “carry your bags, ma'am?” etc). Likewise, N.P.C.'s who have a dislike of the player character might perform actions of spite (such as referring troublesome inquiries over to the player character, or starting an unpleasant rumor). Very minor unpleasantness is given a difficulty number of 2, minor unpleasantness 5, major unpleasantness 10 and really overwhelmingly nasty behavior has a difficulty level of 20. The umpire will have to conceive of possible favours or spiteful acts which might be performed, and quietly check to see whether they are carried out by the game’s N.P.C.’s.

Favours will have increased chances of being granted if an N.P.C. realizes that they are important to the player character. In situations where the favour, if granted, will result in preventing the death or injury of a person with whom the N.P.C. has no feelings of antipathy, drop the favour’s difficulty level by 5 points.

Favours or tests of friendship will sometimes require a person to go against their disposition, causing a certain amount of internal conflict. To simulate this, substitute the strength of the N.P.C.’s disposition for the normal favour difficulty level. If the favour roll failed, then the character’s natural disposition wins over its feelings of friendship, and the favour is refused.

These sort of tests are optional for player characters, since it is really up to the controlling player to determine whether its self image is best served by assisting the character’s friend, or by remaining true to its disposition.

SELF IMAGE/EGO:
The final aspect of psychology which these rules will attempt to simulate is the self image or ego of individual characters. The ego rules provide the means through which the disposition and tie/ antipathy rules come firmly into play.

Each character is given a SELF IMAGE rating, which is used to assess the character’s confidence, independence and general happiness with his or herself as a person. A character’s starting self image score will be equal to its drive characteristic. In many inter-personal skills, the character’s current SELF IMAGE is averaged with the skill governor when determining the character's skill ability. The skills which are thus effected by the character’s self image are as follows:
- All social skills
- Coolness under fire
- Administration
- First aid
- Salesman

A character's self image thus directly effects its performance with several skills.

In addition, SELF IMAGE can be used as an "offensive" value on the comparison chart. As such, it could prove to be a useful instrument to check the character's success at making an impression on another person (ie asking for a raise, applying for a job etc).

**Increases and decreases in self image:** A character's self image is liable to fluctuate a good deal during the course of play. A character's self image score may never decrease to less than half the character's drive score, or increase to a total of more than one and a half times the character's drive score.

As a general rule, things which make the character feel good will increase the character's self image, and things which make the character feel bad will decrease the character's self image. When a character performs an action which satisfies its dispositions, it will feel good (ie a greedy character feels good when it makes a large amount of money). When a character performs an action which goes against its dispositions, it will feel bad. Other things which might make a character feel good or bad are:

**Ties and antipathies:** Successfully contributing to something with which you have a tie (ie doing a good job when you have a tie to your career), or harming something with which you have an antipathy will influence his or her self image. Roll the strength of attachment vs the character's self image score. A successful roll will cause a 1 point change in the character's self image rating. The umpire must use extreme discretion to determine the appropriateness of such actions. Vicious plots performed against people that the character only slightly dislikes will reduce self image rather than increase it.

**Success and failure:** The character's success or failure in its chosen tasks will effect the character's self image. Thus the umpire may wish to hand out self image bonuses or penalties to characters at the completion of an adventure, or when an exceptional event occurs.

**Player cues:** When a player feels that his character has done something good or bad, the umpire is free to allow the player to change the character's self image. Thus, if the player's conscience seems to be bothering him about one of his character's actions, by all means drop the character's self image.

**Recovering self image:** Self image tends to average itself with the character's **Drive** characteristic over time (highs and lows will not last forever). In the short term, however, the recovery of lost self image may be made through compensatory actions. Once again, the performance and success of such compensatory actions is largely taken on cue from the player. Thus, if a character wrongs a friend, he might perceive a debt to the wronged party. Paying off this debt in some way will recover the self respect that was lost.

An individual's characteristics may also effect the conditions under which its self image fluctuates. A highly driven person, for instance, might set themselves particularly brutal standards. If the character fails, or perceives that it has made a fool of itself, it will lose self image points that will be recovered only through compensatory action.

Characters should test for the development of antipathies with things which make them lose self image points, and test for the development of ties with things that have made them gain self image points. Use the tie/antipathy experience chart to test for such developments.

**Modifications of a character's self image can be**
triggered off by a variety of situations. Official reprimands, hurtful rumors and the opinions of friends can all cause random self image loss or gain.

Random self image loss/gain: The amount of self image/ego which a character loses or gains is determined by a random roll. This roll is influenced by the character's stability score.

### Roll on 2D6 Self image score change

- **0 to 5**: No change
- **6 to 8**: +/- 1
- **9 to 11**: +/- 2
- **12+**: +/- 3

### DRM's:

- Stability = 0 to 5: +3
- Stability = 6 to 8: +2
- Stability = 9 to 11: +1
- Stability = 12 to 13: 0
- Stability = 14 to 15: -1
- Testing vs a minor event: -2

### Intermittent reward.

The more common or mundane an event is, the less ego change will result. Give expected or repetitive events a - DRM on the above random self image change chart (-1 to 4 at the umpire's discretion). On the other hand, very major events will cause up to double the normal change to self image generated by the above chart.

### Self image reinforcement:

A character's self image may be bolstered up by people with whom it has a tie. Whenever a character suffers a loss of self image, immediate supportive action from persons or organizations with which the character has a tie (ie: sitting down and talking about it) may reduce the character's ego loss. Roll the strength of the character’s tie vs his stability characteristic. A successful roll will result in the character regaining 1 lost point of self image.

### LEADERSHIP:

Leadership skill is a combination of the character’s personal charisma and his skill in balancing the emotions of the people around him. Characters with leadership skill have a limited ability to effect the confidence and relationships of their companions. Leadership skill rolls may be called upon to motivate subordinates into performing various acts.

Characters with leadership skill may "force" a subordinate character to make an immediate check for a tie experience increase with the leader as soon as they first have the opportunity to interact. The leader must make a roll of its leadership skill vs 10.

If the roll was successful, add 1D6 to the subordinates' tie experience with the leader. If the roll fails, then subtract 1D6 from the subordinates tie experience (possibly even creating an antipathy).

A character with a leadership skill ability of a higher rating than his companions' self images will add a -2 DRM to all rolls made in relation to favours asked by the leader.

A character who is recognized by other characters as holding authority over them will be more readily granted favours. A DRM of -1, will be granted to the leader's dice rolls when checking for favours from his followers.

Additional bonuses may be gathered by characters who are actively acknowledged by a group to be the groups leader (this is different from merely legally being in command). To establish oneself as the leader of a given group, a character must actively attempt to overcome the leadership skill of the other character's in the group on the comparison chart. The successful establishment of a character's leadership over the others in a party grants an additional DRM of -2 to all of the leader's favour rolls, as specified above. The establishment of such recognition is a task which may take quite some time.

Character's with leadership skill may attempt to smooth over the antipathies between their subordinates. A successful roll of the character's leadership skill roll vs his target's strength of antipathy will result in a random decrease of the subordinate's antipathy experience with the character in question (use the tie/antipathy experience chart).

Leaders may try to overcome a follower's antipathy with him on a short term basis by rolling his leadership skill roll vs his subordinate's antipathy strength.

Only a relatively small group of people can be directly led by any one individual. The leadership of a large group of people sorts itself into multi-tiered group dynamics, where minor leaders organise and motivate small groups of followers, and another set of leaders perform the same function for the sets of minor leaders. Thus a sort of pyramid is formed, with the individuals at the bottom being basically untied to leaders at the top, but being subordinate to them by chain of command/deference. Prominent leaders will often attract ties (or even antipathies) from individuals that are far below them on the "leadership pyramid," since underlings will look to them for leadership. This is termed "indirect leadership," since the leader is generally unaware of the emotional ups and downs of the subordinate, and
thus seldom gets to reinforce the underlying's self image (through speeches and personal example), and never gets to smooth out his subordinate's antipathies with his fellows (this task is handled by an individual's direct leader).

**EXAMPLE OF THE INTERPERSONAL RELATIONS RULES IN PLAY:**
Auitzotl is in a fire fight (leading a fairly undisciplined group of resistance fighters) when his friend Glinnes is hit and knocked unconscious. He is bleeding badly and lying in the open next to some hard cover, and Auitzotl decides to go to his aid. Auitzotl shouts to his nearest companions, asking one of them to follow him over to give him covering fire while he drags Glinnes's body across to cover. Auitzotl then dashes off without waiting for confirmation.

Of Auitzotl's 2 companions within immediate earshot, both have ties at strength level 6 with Auitzotl. They are being asked to perform a difficult favour (difficulty 10), but one which might save the life of a person with whom they have no antipathy (the favour therefore becomes difficulty level 5), which means that both must roll an 8- on 2D6 to comply with Auitzotl's request. Since Auitzotl has a leadership skill which is higher than either of his companion's self image/ego ratings, however, a DRM of -2 will be applied, added to a further DRM of -1 since the soldiers recognize that Auitzotl has limited authority over them.

One soldier rolls a 12 (which modifies itself down to a 9), and the other a 10 (which modifies itself down to 7). Thus, the second soldier will break cover to help Auitzotl pull in the injured man. The other soldier has no inclination to expose himself to enemy fire for Auitzotl's sake.

Since Auitzotl has performed a brave and selfless act, the umpire allows a self image increase roll to be made for him (without previously checking Auitzotl's tie strength with his friend, since the umpire feels that the rescue was an exceptional piece of bravery). Auitzotl will also roll to see whether there is an increase in the level of positive experience in his tie with the soldier who helped him perform the rescue. When Auitzotl's friend Glinnes regains consciousness, he will roll to check for an increase in the level of tie that he has with both of his rescuers.

If Auitzotl's self image goes up from this little episode, you will notice that his leadership skill ability will increase. In the future, his subordinates might more readily follow him into danger or obey his commands.
COMBAT

The combat rules of ALBEDO are rather more complex than the rules used for simulating tasks and interpersonal relations. This is quite simply because combat is composed of dozens of different types of actions and events. The co-ordinate action rules are designed to break down the chaos of individual actions into a workable game system.

Turn sequence:
A turn lasts from 3 to 5 seconds. Each turn is divided into 6 sections (called phases), and characters will have the opportunity to act in up to 5 of these phases, depending on the character's maximum number of actions. The performance of actions during a gameturn is ordered by the action sequence chart. The umpire will announce each phase of the turn, and all characters who are eligible to act within the phase will then announce what action their character will perform. See page 39

Initiative:
Characters who find themselves performing actions during the same turn phase as their opponents will determine the priority of their actions in order of the character's initiative ratings (determined at the start of the turn by adding each character's initiative dice score with its chosen weapon's handiness rating initiative modifier). The character with the lowest initiative score must announce its intended action for the current phase, but this action is then preempted by the character who won the initiative, giving him both the jump on his opponent's action and the fore knowledge of what that action will be.

Weapon handiness ratings for firearms are as follows:

<table>
<thead>
<tr>
<th>Handiness category</th>
<th>Initiative modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very handy</td>
<td>0</td>
</tr>
<tr>
<td>Handy</td>
<td>-1</td>
</tr>
<tr>
<td>Average</td>
<td>-2</td>
</tr>
<tr>
<td>Cumbersome</td>
<td>-3</td>
</tr>
<tr>
<td>Very cumbersome</td>
<td>-4</td>
</tr>
</tbody>
</table>

Melee weapons are not rated for handiness. Wielders of melee weapons fighting against melee opponents who are using longer weapons must subtract 1 from their initiative dice score. Characters attempting melee against opponents armed with firearms will always lose the initiative unless they are attacking with surprise.

Crewed vehicles:
Vehicles are slightly more complex than individual characters because of the number of crew on board. As a rule, passengers and gunners will have their own series of actions to perform, and will move and act in the sequence detailed above.

Co-ordinate actions:
Any action which takes place during a single combat phase is defined as a co-ordinate action. A character may perform a number of co-ordinate actions during a combat turn as determined by its co-ordination score.

Types of actions:
Whenever a character aims a weapon, communicates
(either verbally or via electronic equipment or hand signals), drives a vehicle, fires a weapon, removes an empty magazine, fits on a new magazine, falls prone, stands up, observes his surroundings, primes a grenade, throws a grenade or any other such activity, one of its actions for the turn is used.

**Movement:**
Walking characters move forward approximately 2 meters in every phase of a game turn, at the cost of one of the character's actions for the turn. Running characters move 10 meters whenever the character expends 2 of its actions to do so. Sprinting characters move 15 meters whenever 2 actions are expended on sprinting movement. Running characters may fire on the move (assuming they can pay the extra action that this will cost), but suffer an accuracy DRM when they do so. Walking and running characters may not take aim with firearms. Characters may not fire in any turn that they sprint.

**Small unit tactics skill:**
The tactical skill of the leader of a group of combatants may well have a bearing upon the initiative scores of its followers. At the beginning of any combat turn, a group leader may elect to use his small unit tactics skill (using two of his actions for the coming turn in order to do so). The leader must first designate a group of his followers with whom he will communicate during this turn. A leader may only chose to assist followers when he is familiar with his subordinates' current situation (i.e., they must either be in view of the leader, have communicated with the leader during the previous turn or be in view of a person who has communicated with the leader over the past turn).

The leader now rolls on the comparison chart, matching its tactics skill against either the opposing leader's tactical skill, or the difficulty of the tactical situation (i.e., a "simple" situation might be one where the unit is dealing with a familiar problem which may be handled by routine procedures).

If the roll is successfully made, then 1 point is added to the initiative scores of all troops with whom the
leader communicated during this turn, but only if those troops have some level of tie with the leader. If the roll is failed by 2 or more points, then 1 point is subtracted from the initiative scores of all troops with whom the leader communicated during this turn.

Leaders whose activity involves the monitoring and leading of subordinate leaders will not deal directly with individual combatants. Instead, they will advise and instruct the leaders who are subordinate to them. A successful tactics roll made by a monitoring leader will grant his subordinates a -1 DRM on their own tactics skill tests. A roll failed by 2 or more points will cause the subordinate leaders to suffer a +1 DRM to their tactics skill tests. This DRM will last until the tactical situation somehow changes, or until superseded by new tactical instructions. The "coaching" of subordinate leaders will require constant monitoring of communications traffic between the leaders and their men, as well as regular situation appraisals from all subordinates.

COOLNESS UNDER FIRE:
Coolness under fire represents a character's ability to avoid panic or hesitation in circumstances that are dangerous or alarming. Coolness under fire tests should be taken to measure a character's calm or presence of mind in any crisis situation.

The following events will cause a character to make a coolness under fire test during combat:
- The character is fired at for the first time during the current combat.
- The character suffers a near miss by enemy gunfire (ie. the character is missed by only 1 or 2 points on the dice).
- The character enters into melee combat for the first time during the current combat.
- The character is surprised by the sudden appearance of an opponent.
- One of the character's companions is killed or suffers a massive or catastrophic wound within full view of the character.

A failed C.U.F. test under these conditions drives the tester to duck or flinch sufficiently to spoil any aim he might have already drawn, and causes the loss of the character's next two actions. Characters who fail a coolness under fire test while engaged in a firefight will normally duck behind any affordable cover within 10 metres, or fall prone. They are not expected to stand about dumbly waiting to be shot.

Procedure: A coolness under fire test is taken by testing the characters coolness under fire skill against 10 on the comparison chart. Relevant DRM's for combat caused C.U.F. tests are -1 for every friend currently within 10 meters of the tester (up to a max DRM of -3).

Example: Auitzotl's armoured vehicle brews up, and both he and the driver bail out. The driver is immediately hit and killed by rifle fire coming from a nearby doorway.

Auitzotl must now make a coolness under fire check, since his companion has just been killed. Auitzotl's coolness under fire roll is failed. Auitzotl loses his next two actions, and he huddles beside the ruins of his burning vehicle.

Once two phases have passed, Auitzotl gets over his shock and looks around to see an I.L.R. soldier emerging from the doorway. Auitzotl fires at the rabbit trooper and misses! Since he has just been fired on for the first time during the current combat, the I.L.R. soldier must make a C.U.F. roll. He fails his roll, and jarks back into cover behind the doorway, where he will remain inactive for the next two phases. Auitzotl has now pinned his opponent, and may use the next two actions to move from his exposed position.

TASKS:
A task is perhaps best described as any single action which the character attempts which will take more than one phase to complete. Tasks are individual actions or attempts to achieve set goals, as opposed to the constant flow of action and reaction encountered in combat. Should a character desire to ballroom dance, pick a lock or play a video game, this is a task that the character has set itself, and a check is made on the appropriate skill or characteristic to determine the success or failure of the venture.

Set all tasks an average time for completion. Finishing a task before this average time has elapsed will be more difficult than finishing the task in the usual period. If a character wishes to persist at a task after a few unsuccessful attempts, have the character make a drive roll in order to do so.

COMBAT PROCEDURE.
Combats utilise the action sequencing and co-ordinate action systems described in the previous chapter of the rules. When a character performs an offensive action (such as firing a weapon at a target or making a blow in melee), they will be required to make a roll on the comparison chart, testing their skill against the difficulty of the action. Since firefights and melee combats use slightly different systems for determining the chance of making a hit, these two types of combat will be discussed separately.
MISSILE WEAPONS FIRE (fire fights):
Missile fire is taken as a test of the firer's weapon skill ability score vs the difficulty of hitting the target. The "shot difficulty" is determined by the range of the target, modified by the speed of the target, the firers' movement, the time spent on aiming the weapon etc. These values are to be found on the "Shot Difficulty Chart" on page 38 of book three.

Range brackets:
Missiles are given five range brackets: Close, Short, Medium, Long and Extreme ranges. Close range shots are any shots made at targets within 10 metres of the firer. Short range shots are those made without any allowance for the deflection of the round due to range. Medium range is the distance at which it becomes slightly harder for the firer to draw a bead on the target. At Long range, adjustments to aim must be made due to the drop of shot, and Extreme range is the topmost limit of effective firepower.

Rapid fire:
Single shot weapons may use rapid fire, expending two rounds in a single firing action. If the target is hit by a dice roll which was 2 or more points under the minimum required roll, then the target will be struck by 2 separate rounds (roll hit location, penetration and damage for each of these hits separately).

Automatic fire:
Automatic fire is divided into two types: controlled bursts of 4 rounds, and wild bursts of c.8 rounds.

Controlled bursts:
Controlled bursts receive a DRM to hit of -1 at medium and long ranges. For every two full points of dice score that the rolling player undercuts the minimum roll to hit, the player scores 1 additional hit on the target (up to a maximum of 4 hits total). When a target is struck by multiple bullets from a controlled burst, roll once for hit location. This is the location struck by the first round. For all subsequent rounds which have struck the target, roll 1D6. On a 1 or 2, subtract 1 from the hit location number of the first round to determine the location struck by the next bullet. On a score of 5 or 6, add one to the first bullet's hit location score to determine the next location struck. Thus multiple hits from controlled bursts are very tightly grouped.

Wild bursts:
A character firing a wild burst receives beneficial hit DRMs at close and short ranges.
For every two full points of dice score that the rolling player undercuts the minimum roll to hit, the player scores 1 additional hit (up to a maximum of 8 hits in total).

When an automatic weapon fires at a group of people in a single confined area, all hits achieved should be randomized amongst all of the clustered targets.

Example: Auitzotl, armed with a assault carbine, finds himself involved in a fire fight. Auitzotl's co-ord score of 11 gives him 4 actions per turn.

Auitzotl elects to run forwards 10 metres, allowing him to see around the corner of a large building and into the next street. This movement will cost him 2 of his 4 actions. Looking at the action sequence chart, we see that Auitzotl's second action is completed in phase 3 of the turn, so Auitzotl is assumed not to reach the building until the end of phase 3. Auitzotl now elects to spend one action observing the area around the corner of the building. He therefore receives a report on the scenery around the corner of the building in phase 4.

Upon peering around the corner, Auitzotl is told that he sees an I.L.R. soldier running down the street towards him. He elects to use his last action for the turn in firing at this target. The I.L.R. soldier is 90 metres away (medium range for an 8mm assault carbine). Auitzotl's Longarms skill of 11 vs the difficulty number for a medium range shot (10 for a firearm using "dart" ammunition) gives him a basic roll to hit of -8 on 2D6. The DRMs applicable to this situation are +1 because his target is sprinting, and +2 for an unaimed shot (aiming would have taken one more action). Auitzotl elects to fire a controlled burst, giving an automatic fire DRM of -1. Total DRMs thus total +2.

Auitzotl'splayer rolls 2D6 to hit, and the dice come up totaling 5. With a DRM of +2, this raises his dice score to a total of 7 - a hit! Since Auitzotl's modified dice roll was only 1 below the minimum score required to hit, his target is struck by only a single bullet from the burst.

MELEE COMBAT:
Rolls to hit in melee combat are taken as a test of the attacker's skill ability score vs the target's melee defense rating.

A character's melee defense is found by averaging its Co-ordination score with its skill rating in its opponents chosen attack form.

Parries and dodges are assumed to happen all through a combat, and are represented by the increased chance of missing a highly skilled opponent. Characters may, however, elect to forgo their current attack, giving their opponent a DRM of +1 on it's next attack.

Offensive/defensive melee combat:
A combatant may choose to fight either offensively or defensively during a combat. At the end of any turn
which a character fights offensively, the character will accrue 2 fatigue points. Characters who choose to fight defensively will lose 1 fatigue point per turn.

There is a DRM of +1 to hit an opponent who is fighting defensively.

All characters who choose to fight defensively suffer a DRM of +1 on all dice rolls to hit their opponents.

**Melee weapons reach:**

In melee combat, subtract the length of the shortest weapon from that of the longer. This is the reach difference. Whenever an attack is made by the shorter weapon against the wielder of the longer weapon, the reach difference is used as a positive DRM on the roll to hit. Once the shorter weapon actually scores a hit, however, the reach difference is applied to attacks made by the longer weapon against the user of the shorter weapon (the wielder of the short weapon is assumed to have now closed the range). This situation will see-saw back and forth as one or the other antagonist successfully achieves a hit.

Subtract 1 from all hit location dice scores made by characters who have a larger frame size than their opponent.

**Locks:**

Characters with a skill in "Wrestling" at training level 10+ may convert grapples into control or limb breakage attempts. Roll the character's wrestling skill ability vs 10 to make a lock on the opponents limb. A roll of strength vs 10 may then be made to break the locked character's arm (serious impact wound), or the victim may simply be held in position for as long as the locking player desires. Characters who wish to get out of a controlling lock in subsequent turns must roll co-ord vs 20 to do so.

**Alternative melee actions:**

During the course of melee combat, many actions may be performed which are not merely strikes. The ways and wherefores of many of these we now detail out below.

A successful grapple will immobilize the target character. The grappled individual may only punch (elbow) at a DRM of +2, or try to break the grapple. A grapple may be followed with a lock, a trip or a throw, or the grapper may "bear hug", testing str vs str in an attempt to inflict 1D3 fatigue points on his victim.

<table>
<thead>
<tr>
<th>Action performed</th>
<th>Attacker's characteristic tested</th>
<th>Defending characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grapple</td>
<td>Wrestling skill</td>
<td>opponent's co-ord</td>
</tr>
<tr>
<td>Trip</td>
<td>Co-ord</td>
<td>opponent's co-ord</td>
</tr>
<tr>
<td>Throw grappled opponent</td>
<td>Wrestling skill</td>
<td>opponent's strength</td>
</tr>
<tr>
<td>Break grapple</td>
<td>Strength</td>
<td>opponent's strength</td>
</tr>
</tbody>
</table>
A character who is tripped suffers the knock down effects detailed in the rules section on shock. Trips may be performed at a distance, much like a kick attack (with a range of 1). Trip attacks made at range (ie not having been preceded by a successful grapple) will be made at a DRM of +1, and with a further DRM of +1 if the defender is of a larger frame size than the attacker.

Throws may only be attempted against grappled opponents. Thrown characters will suffer damage as if they have fallen two metres.

**Blased attacks:**
Characters making aimed shots at clearly visible targets may bias their aim towards striking a particular hit location. At close and short range (or out to long range with telescopic or smart sights), characters may opt to shoot high or low. Shooting low causes a DRM of +2, and replaces the normal 1D10 hit location roll with a roll of 1D6+4. Shooting high incurs the same accuracy penalty, but the hit location roll will be made on 1D6.

Please bear in mind that biased strikes will influence all dice rolls of the elected type which result from the roll to hit. Thus if a character biases a burst of automatic fire towards striking high, and the burst scores three hits on the target, all three hit location rolls will be made on 1D6.

When a melee attack or a close/short range missile weapon attack is made upon an unsuspecting opponent, the attacker may select which location his strike will hit without the need to roll for hit location.

Once a hit has been scored in melee or missile combat, the next steps are as follows:

1 - Determine hit location.
2 - Check to see whether the strike has penetrated the target's armour.
3 - Determine damage caused by the hit. At the end of each turn, increment all fatigue points losses caused by character movement, character actions and blood loss.

**ARMOUR:**
The armour rules used in this game revolve around a simple dice roll on the comparison chart. While something more complex could have been used, it is best to take the simple way out and use the game's basic chart as much as possible. As is, the armour penetration rules are quick, and accurate enough to ensure realistic play.

Armour protects the wearer in two ways. Firstly, armour prevents the penetration of the target through the toughness of the material and the presentation of glancing surfaces to incoming hits. Secondly, some forms of armour cushion or distribute the impact of a blow across a wider area, thus lessening the effect of the hit by reducing the energy of the blow. The protective value of the various types of armour available in this game are specified in the equipment lists. The protective qualities of armour are expressed by two ratings; Penetration resistance and Impact distribution. The first of these represents the armour's ability to resist penetration by a weapon, and the second represents the armour's ability to dissipate the energy of weapon hits.

**Multiple layers of armour:**
If a character opts to wear multiple layers of armour over a hit location, it will receive no benefits to its penetration resistance rating. When determining whether or not a hit penetrates a character's armour,
roll only once, and use only the highest penetration resistance value of any one of armour covering the location.

Multiple layers of armour can increase a hit location's total impact distribution rating. If a character wears two items of armour on one hit location then add together the impact distribution of both armours.

**Helmets:**
Helmets do not completely cover the wearer's head with a homogenous layer of protection. Roll 1D6 and consult the following chart to see which part of the head has been hit:

<table>
<thead>
<tr>
<th>Dice</th>
<th>Front</th>
<th>Side</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Skull</td>
<td>Skull</td>
<td>Skull</td>
</tr>
<tr>
<td>2</td>
<td>Skull</td>
<td>Skull</td>
<td>Skull</td>
</tr>
<tr>
<td>3</td>
<td>Skull</td>
<td>Skull</td>
<td>Skull</td>
</tr>
<tr>
<td>4</td>
<td>Upper face</td>
<td>Skull</td>
<td>Skull</td>
</tr>
<tr>
<td>5</td>
<td>Lower face</td>
<td>Lower face</td>
<td>Skull</td>
</tr>
<tr>
<td>6</td>
<td>Neck</td>
<td>Neck</td>
<td>Neck</td>
</tr>
</tbody>
</table>

**DRMs:**
Fired at from below: +1
Fired at from above: -1 or -2

The equipment lists will inform you as to which areas of the head are covered by different ratings of armour protection.

**Armour penetration procedure:**
To penetrate armour and deal their wounds to an armoured body, weapons must defeat the penetration resistance of the armour with the penetration of the weapon. Roll on the comparison chart, comparing the penetration number of the weapon with the penetration resistance of the armour. A successful roll indicates that the bullet has penetrated through the target's armour.

Weapons with penetration values of 9 or more points higher than the defending armour's penetration resistance will penetrate automatically, without recourse to a dice roll.

Impact weapons (clubs, size 9 army boots etc) do not check for penetration - they are automatically assumed to fail.

**The effects of penetration failure:**
If a strike does not penetrate the target location's armour, then the weapon's damage will be effected by the armour's impact distribution. Move the weapon's damage column on the damage determination chart across to the right by one space for every point of impact distribution covering the effected location.

Low energy weapons such as grenade fragments or knives have no effect on the target if they fail to penetrate armour.

**WEAPONS:**
All weapons used in this game are rated for two main qualities; penetration and damage. The penetration rating of a weapon is used to represent the weapon's ability to defeat armour. A weapon's damage rating represents the extent of wound which the weapon will be likely to cause to any targets struck by it. Please read the rules sections on armour penetration and damage determination for an explanation of these procedures.

**Damage ratings:**
All weapons have a damage rating, which is used as a DRM on the damage determination chart.

A character's damage with melee weapons is increased by one if its strength is 2 or more points higher than its melee opponent's strength score. A character's melee damage is lowered by 1 point if its training level in its melee attack form is 7 or lower.

**Range effects on missile fire:**
The effective strength of a missile drops off sharply with range. The firearms characteristics chart and the equipment lists show the effects of increasing range on the penetration and damage of kinetic energy weapons (bullets and shells). Base bleed equipped bullets ("darts") vent gas out of their tails to reduce the effects of drag on the round, and thus lose less energy over long ranges.

**WEAPON BREAK DOWNS:**
On a roll to hit of 12, firearms stand a chance of breaking down. Roll 2D6 and consult the chart below.

**Firearm break downs chart.**

<table>
<thead>
<tr>
<th>Dice roll</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-7</td>
<td>No effect</td>
</tr>
<tr>
<td>8-10</td>
<td>Stoppage, 1 action phase to clear.</td>
</tr>
<tr>
<td>11-12</td>
<td>Jam, Roll M.Dex vs 10 each turn to clear. 2 failures mean that special tools will be required to clear the breach.</td>
</tr>
</tbody>
</table>

**Caseless ammunition:**
The caseless cartridge format used by the I.L.R. for its 6mm caliber ammunition is susceptible to breakdowns after being exposed to dramatic pressure drops or severe temperature changes. Caseless ammo checks for breakdown effects after such exposure to
adverse conditions on any roll to hit of 11 or 12.

**GRENADES AND EXPLOSIVES:**

Hand grenades roll to hit using the normal shot difficulty chart, with the following range brackets:

<table>
<thead>
<tr>
<th>Range</th>
<th>Short: 20</th>
<th>32mm</th>
<th>Medium: 40</th>
<th>48mm</th>
<th>Long: 60</th>
<th>Extreme: 60+(str x 2)</th>
<th>50+(str x 2)</th>
</tr>
</thead>
</table>

**Fragmentation weapons:**

Fragmentation grenades and the like attack 1D6 hit locations of the target with light splinters and shrapnel. Explosive fragmentation weapons have a separate explosive damage which is also rolled for (this represents the initial blast of the explosive). Body armour does not distribute the effects of explosive shock, so it will always be rolled on column 5 of the damage determination chart.

The full effects of blast and damage are only dealt to characters who are standing within 5 metres of the blast. Damage then lessens with the range to the explosion's center. Grenades and H.E. missiles have a blast radius of c.15 metres. Reduce the explosion's blast effects by -4, and the damage and penetration of fragmentation hits by -2 for every 10 metres distance between the stricken character and the center of the explosion (out to the weapon's maximum blast radius). Characters caught more than 10 metres from the center of a grenade blast receive only half the normal number of fragmentation hits (1D3 rather than 1D6), and will avoid taking fragmentation hits altogether if they can make a saving roll of 7- on 2D6.
A direct hit on a small target (such as a person or a window) with a projected grenade is achieved on a roll 2 or more below the minimum roll required to hit the target normally, but only if the hit was as a result of direct fire. When this occurs against a living target, the explosive effect dealt to the target is at +4 damage.

When an explosive device goes off near a target, all characters immediately nearby suffer the 1D6 fragmentation hits specified above (unless struck by a projected grenade - see above). All characters must now make a saving throw (see the grenades and explosives section of the equipment lists for the required saving throws against the various weapons). If the saving throw fails, then the damage caused by each of the fragmentation hits made by the grenade is doubled. Characters who were close to the blast but not directly beside it may, at the umpire's option, make a saving throw to avoid taking any damage from the device at all (a successful roll indicates that the character dodged in time, or was missed by pure luck).

Grenade throwing action expenditure:
Normally two action must be expended to throw a grenade (1 to arm and one to throw). Grenades will usually explode at the end of the phase after they are thrown, although they can be fused for a delay of 1 to 6 phases. Hand grenades are treated as indirect fire weapons for the purposes of timing of fire (see below).

Missed shots:
Missed shots with grenades or similar area effect projectiles when using direct fire roll will fall either short or over the target hex. Roll 1D6 for the fall of shot:
- 1-2 = 10 meters short.
- 3-4 = 10 metres to the left or right.
- 5 = 10 meters over.
- 6 = 20 meters over.

Missiles which have been thrown their maximum range will always drop short. Double the range of all misses made by projected grenades, missiles or vehicle mounted weapons at long or extreme range.

Indirect fire:
Indirect fire is performed in the usual way, with the firing character rolling its weapon skill vs 15 for success. DRM's for indirect fire (IDF) are +2 for the first 2 shots at a target if the firer does not precisely know the range to the target (eg. through having used the range finder built into an infantry rifle). All normal firing DRM's are also taken into consideration when firing indirectly. Carefully aimed shots are not allowed on the first shot at any target.

Timing of fire: Indirect fire takes place after all direct fire due to occur during the current action phase has been adjudicated. Thus if two characters (1 with a rifle and 1 with a hand grenade) wish to attack each other in the same phase, the grenadier will automatically lose the initiative.

MISCELLANEOUS PAINFUL EXPERIENCES:
A number of mishaps may cause damage to a character. The following lists are intended as guidelines for determining the damage suffered by characters from a variety of events.

Burns:
Burns caused by large fires or incendiary devices attack the character with damage ratings of +1 to +3 on damage column 3 (vehicle brew-ups are made at a damage rating of 2). Burns do not cause bone breakages or bleeding effects when wounds are suffered, but do cause fatigue points loss from shock. Burn damage will not normally go through body armour, but may set the armour on fire, chewing its way through in 1D3 to 1D6 turns. Blazing characters should make coolness under fire rolls to avoid running around in panic rather than rolling out the flames.

Falls and explosions:
The damage caused by a fall is determined by the height of fall, as shown on the following chart:

<table>
<thead>
<tr>
<th>Fall effects</th>
<th>Number of locations damaged</th>
<th>Damage caused by each attack (column 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height of fall*</td>
<td>1 meter</td>
<td>up to 2 metres</td>
</tr>
<tr>
<td>1 meter</td>
<td>1</td>
<td>1D2</td>
</tr>
<tr>
<td>up to 2 metres</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>up to 3 metres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>up to 4 metres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 8 metres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>up to 16 metres</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Avians with large wings (ie not penguins or ostriches) halve the effective height from which they have fallen for the purposes of determining fall damage.

Fall victims are always knocked off their feet.

Characters who have a skill in wrestling may make a skill roll vs average difficulty to negate the damage caused by a fall of 1 metre (taking 1 fatigue point instead), or roll vs a difficult task to negate the damage taken from a 2 metre fall (instead taking 1D3 fatigue points).
Vacuum exposure:
Exposure to vacuum deals 1D10 fatigue points to a character per turn. Pressure drops from vac suit punctures will cause varying amounts of fatigue, as shown below:

<table>
<thead>
<tr>
<th>Type of breach</th>
<th>Fatigue points lost per turn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor puncture (eg. a bullet hole)</td>
<td>1/2 pt per turn</td>
</tr>
<tr>
<td>Puncture (eg. a bullet hole)</td>
<td>1D2 per turn</td>
</tr>
<tr>
<td>Tear (eg. a knife slash)</td>
<td>2D2 per turn</td>
</tr>
<tr>
<td>Major breach</td>
<td>2D3 per turn</td>
</tr>
</tbody>
</table>

Once a character returns to a pressurized environment, fatigue caused by vacuum exposure is recoverable.

Fatigue DRM's of +2 or greater from pressure drops cause a serious wound to the victim's chest. A fatigue DRM of +3 or higher caused by vacuum exposure will cause a serious head wound (ruptured eardrums). A character who suffers a fatigue DRM of +4 from direct vacuum exposure is blinded.

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**DAMAGE**

This game rejects the concepts of hit points and critical hits. The body can suffer a fair bit of knocking about, but it tends to abruptly cease to function when a vital part ceases to work. Characters will die through these means, or through shock, but it is unthinkable that a person could simply be "chipped to death" by minor hits whittling away abstract "hit points". Blood loss and pain are major causes of shock, and all of these are similar to fatigue in their biological mechanism. Thus fatigue may be caused by wounds and bleeding, and high fatigue DRM levels are fatal.

Wounds affect a body in several ways. Through tissue damage, which impairs the function of the injured part, through blood loss, which fatigues and weakens the body, and through shock and pain, which tire the character and halt its ability to act.

**Damage determination procedure:**
The damage determination system of ALBEDO relies upon a rather complicated chart (the Damage Determination Chart). This chart is simple to use once it is properly understood.
All damage rolls are made by rolling 2D6 and cross referencing the result with the appropriate column on the chart.

**Starting column:**

- **Column 1** - Penetrating weapons (eg. bullets, knives etc.)
- **Column 2** - Slashing weapons (eg. Teeth, shell splinters, machetes etc.)
- **Column 3** - Narrow point impacts (eg. fighting sticks, "blunt trauma" etc.)
- **Column 4** - Impacts (eg. falls, explosions etc.)

The damage rating of the striking weapon, the location of the hit and the frame size of the target all act as DRMs on the damage roll.

### Damage roll DRMs.

<table>
<thead>
<tr>
<th>Frame type</th>
<th>DRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>+2</td>
</tr>
<tr>
<td>Light</td>
<td>+1</td>
</tr>
<tr>
<td>Average</td>
<td>+0</td>
</tr>
<tr>
<td>Solid</td>
<td>-1</td>
</tr>
<tr>
<td>Huge</td>
<td>-2</td>
</tr>
</tbody>
</table>

### Hit location DRMs.

<table>
<thead>
<tr>
<th>Location struck</th>
<th>DRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head</td>
<td>+3</td>
</tr>
<tr>
<td>Chest</td>
<td>+2</td>
</tr>
<tr>
<td>Abdomen</td>
<td>+1</td>
</tr>
<tr>
<td>Leg</td>
<td>-0</td>
</tr>
<tr>
<td>Arm</td>
<td>-1</td>
</tr>
</tbody>
</table>

### Associated characteristics:
(for wound DRMs)

### Impact distribution.

If impact distribution comes into play (if the target's armour was not penetrated), shift the damage result across to the right by 1 column for every point of impact distribution on the affected hit location. If this column shift moves the damage column past column 5, then roll the damage on column 5 and apply a DRM of -2 for every unit of excess column shift.

### The effects of damage.

Damage falls into two categories: WOUNDS and SHOCK.

**Wounds:** Tissue damage is represented by the loss of the ability to use characteristics associated with the afflicted part. A cumulative adverse DRM is suffered which is applied to any roll (except a wound resistance roll) which involves a use of the characteristics associated with the wounded body part. Associated characteristics are as follows:

- **HEAD:** Reason/Intuition/Manual dexterity
- **ARMS:** Strength/Manual Dexterity
- **CHEST:** Strength/
- **ABDOMEN:** Co-ord/Strength
- **LEGS:** Co-ord/

Wound DRM's are brought into play any time that a skill is used which involves the damaged characteristic as one of its governing characteristics. Subtract intuition DRM's directly from a character's initiative ratings. Where two or more wound DRM's are relevant to the use of a skill (ie with a skill governed by 2 characteristics), only the highest of these is taken as the dice roll modifier to be used in the skill test. Do not add all the relevant DRM's together (although DRM's caused by multiple wounds to the same characteristic will accumulate).

Please note that wound DRM's never effect a character's wound resistance rolls, but do effect shock resistance rolls.

### Wound definitions:

**Grazes:**
Shallow surface wounds or bruising. Grazes or cause a characteristic DRM of +1, and do not significantly bleed.

**Light wounds:**
Light wounds are painful but not disabling, and cause a characteristic DRM of +2. In addition to the DRM effects, characters who have suffered light wounds receive 1 fatigue point (recoverable) at the end of any turn in which they perform an action which involves moving or jolting the injured part.

**Serious wounds:**
Serious wounds are disabling, and cause a characteristic DRM of +3. If the character was hit in an arm, it must drop any item carried in that hand. Characters who are hit in the legs or abdomen may not run, jump or sprint. Characters who have been wounded in the chest or head recover fatigue points at half the normal rate. Characters who are suffering from serious wounds receive 1 fatigue point (recoverable) whenever they perform any action. Serious wound cause blood loss of 1 point per turn (see overleaf).

**Massive wounds:**
Massive wounds completely disable the victim and cause a characteristic DRM of +4. Characters who have suffered massive wounds may only perform actions if they successfully make a roll of their DRIVE vs 10 at the start of the turn. Characters who...
have suffered massive wounds receive 3 fatigue points (recoverable) whenever they perform an action, and recover lost fatigue at a rate of 1 point per turn of rest.

Massive wound cause 4 points of blood loss per turn (see below). If a character with a massive wound performs any action involving physical movement, it will bleed 1 extra point of blood loss, regardless of whether the wound has been successfully staunched or not.

Catastrophic wounds:
Catastrophic hits to the head or chest instantly kill the character. In the abdomen, the character will be hurtled into an anæ-mor-tém coma, knocking the character out of play and inflicting unstauchable 6 points of bleeding per turn (the character is going to die - it just might take a while . . .).

In the arms or legs, a major bone breakage has occurred. The character will suffer 1 point of fatigue whenever he performs an action or is jarred. Otherwise, all effects of catastrophic hits in the arms or legs count as if the character had suffered a massive wound. Blood loss from catastrophic wounds to the limbs is 10 points per turn for a hit to the legs, or 6 points per turn for a hit to the arms.

Shock:
Shock is simulated by fatigue loss and loss of actions. Fatigue loss from shock is not recoverable in the scope of time covered by a combat, but will disappear over time.

A character may suffer only 1 shock result in any given phase. When multiple hits occur, only the most severe shock result will take effect.

Stagger:
Inflicts 2 fatigue points. The character is rocked by the blow, and loses its next action.

Stun:
The character loses 4 fatigue points, and temporarily halves the number of actions that it receives per turn. After two full turns have past, the character may roll its DRIVE vs 10. If successful, it recovers and once again uses its full number of actions per turn. If the roll is failed, the character rolls again every turn until it succeeds.

Knocked down:
The character is knocked off its feet and suffers 6 fatigue points. 6 phases must pass before the character may once again perform any actions. Once these 6 phases pass, the character counts as being stunned (see above).

Knock out:
This shock effect causes 8 fatigue points, and renders the target insensible from shock for 1D6 turns. The character must then test its drive vs 10 to regain its wits enough to once again begin performing actions (after which it will count as being stunned - see above). If the first drive roll is failed, then a minimum of 1D6 turns must pass before the character may try again. In the interim, the character is assumed to be unconscious.

Blood loss:
Blood loss is determined by the wound category dealt to the character. Blood loss from a wound is one point per turn for a serious wound, 4 points per turn for a major wound, and 6 to 8 points per turn for catastrophic wounds.

Impact weapons never cause bleeding unless a "2" was rolled to hit the target. Bleeding from impact weapons is internal. Massive internal wounds bleed at a rate of only 2 per turn.

Bleeding is a cause of fatigue. Every point of blood lost causes one point of non recoverable fatigue on the target.

Staunching blood loss.
Bleeding wounds may be "staunched" to halt blood loss. Attempting to staunch a wound is a task, and therefore takes place through a whole combat turn. Check the First aid skill of the staunching character vs the difficulty of the task.
- Staunching a serious wound is a simple task.
- Staunching a major wound is a task of average difficulty.
- Staunching a catastrophic wound is extremely difficult.

Give a DRM of +1 to all attempts to staunch the bleeding caused by massive or critical wounds to the torso. The difficulty of staunching internal bleeding is raised by 1 level.

If an attempt to staunch a major or catastrophic wound fails by only one or two points, then halve the blood loss suffered by the patient during the turn.

Once a wound's bleeding is stopped, it will remain so as long as pressure is kept on the wound (ie by using a field bandage).
HEALING

Except for the staunching of blood flow, most wound treatment is not performed in the scope of the combat game. Healing utilizes a number of dice rolls in an effort to bring an element of worry, hope and struggle into the realm of wound recovery.

Blood loss/Tissue damage recovery:
If the blood loss from a wound is kept at zero for twenty minutes, no further losses are taken unless the character moves (unless carefully carried), is knocked over or struck on the wounded hit location. Up to 10 points of blood loss fatigue may be erased by the use of blood transfusion every half hour.

A successful stamina roll vs 12 is required before any healing may take place (roll once per day until the roll is made). Once this roll has been made, the character will begin to heal. Find the character's wound level on the chart below. At the end of each week of rest (or a fortnight of rest if the character is placed under stress) the character may roll the average of its stamina and the supervising medic's medical skill vs the wound's healing difficulty number on the comparison chart. A successful roll will lower the character's wound to the next lowest category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Healing difficulty number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catastrophic</td>
<td>15</td>
</tr>
<tr>
<td>Massive</td>
<td>12</td>
</tr>
<tr>
<td>Serious</td>
<td>10</td>
</tr>
<tr>
<td>Light</td>
<td>10</td>
</tr>
<tr>
<td>Graze</td>
<td>8</td>
</tr>
<tr>
<td>Healed</td>
<td></td>
</tr>
</tbody>
</table>

Shock recovery:
Shock recovery is tested at set points after the character is wounded. All fatigue losses from shock are recovered once a shock recovery roll is made. Shock recovery rolls may be attempted at intervals of 1/2 an hour, one hour, three hours and 1 day after the character suffered its wound, and every day thereafter. A roll must be made of the character's stamina vs 10 (with appropriate fatigue DRM's). Successful first aid or medical skill rolls will give the shock victim a -2 DRM on its recovery roll.

A failed shock recovery roll for characters with a fatigue DRM of +4 or higher inflicts a further 1D3 of shock on the character. If it is still alive, another roll may be made once the requisite time has passed.
ADVENTURE DESIGN

While ALBEDO can be played in the traditional "shoot-em-up" style of all other role playing games, this is an inadequate use of the ALBEDO rules. The rules for inter-personal relations and character development allow ALBEDO to be run in a very different manner. The idea of an "alternative role playing concept" was a major factor in the design of these rules, and I sincerely hope that you avail yourself of all the possibilities of this game system.

ALBEDO adventures should have the elements of a good science fiction story. Most of all, it should be entertaining. Plot, building tension and atmosphere are major elements of play, but umpires should remember that very simple things can sometimes make or break an adventure. A well depicted N.P.C. or a sudden digression from normal play (an unexpected problem or a flashback) can create a surprising amount of enjoyment.

Player characters.

An adventure is based around its protagonists, the player characters. Both umpire and players must have a clear idea of the talents, personalities and limitations of the player characters before beginning an adventure. The adventure should then be designed to both challenge and develop the characters.

This game is set in the "Erma Felna, E.D.F." scenario written by Steven A. Gallacci. As such, the rules contain a great deal of information on the armed forces of the ConFed (particularly the E.D.F.). It should be understood that it is not the designer's intention to force players and umpires into structuring their games around characters who are serving in the E.D.F. - in a universe as rich and varied as that of ALBEDO, there should be no reason for such constraints. Characters who are serving soldiers should be all part of a team (ie a starship or vehicle crew) as dictated by the umpire's planned scenarios. Civilian groups may be looser in composition, and are a lot of fun to play.

Atmosphere.

Before beginning to plan an adventure, the umpire should have an idea of the sort of feeling that he wants to get across to the players. This atmosphere should be kept at the forefront of your mind while you think about the actual elements of the adventure, and will govern the descriptive language that you use during play. A good adventure should be involving because of the feelings that it communicates.

Plot.

The umpire will now have to work out a general story line for the adventure. Like any type of story telling, an adventure will tend to build itself once it gets going. The umpire will still need a good idea of what major events and scenarios will occur, and a stock of ideas for minor tasks and problems to introduce to occupy the players.

The ALBEDO background material provides the umpire with the opportunity to create thought provoking adventure. A clever plot line could raise issues which will cause players to deliberate and question their own values. One of the main messages of the Erma Felna story has been that "ideas should not be compromised for the threats of the moment" (Steve deals mostly with the constitutional side of this, while I favour the personal one). Adventures where players will be tested as to their abilities to uphold their ideals over their immediate needs are interesting if your players will go for it.

Umpires might find it useful to conceive of their adventures as falling into three distinct, progressive parts:

a) Character development: Start laying out the beginning elements of the adventure plot. The characters will be introduced to their situation and environment. The opportunity now arises for the characters to interact with the N.P.C.'s who inhabit their immediate world and develop relationships with them (either good or bad). The characters' self confidence may suffer or increase depending on how well they interact with the people and environment around them.

A number of tasks, events and minor crises/decisions will appear. At this stage the player characters will be presented with tasks, events and data which will not be fully understood, and which may seem unconnected. Throwing the player characters together with people whom they like or hate, and the opportunity to perform well or badly in moments of crisis in front of others will all be important to the development of the character's psyche.

b) Crisis: A major crisis (which has probably been building up all this while) should now take place. This will both provide a severe test of the player's wit and skill, and test the character's newly developed relationships and self image. The character's relations with its colleagues, the self confidence (or lack thereof) that it has developed and the responsibilities that it has acquired should all effect the outcome of the adventure.
c) **Denouement:** With the major events and their immediate consequences out of the way, it is time to wrap up all of the loose ends. Rewards and punishments, summaries of "off screen" events is one technique for ending an adventure. Another is to immediately rip the characters out of the current situation and drop them into something new. The long range results of the player character's actions may suggest guidelines for future events.

**Supporting characters.**
In a properly constructed ALBEDO adventure, a large file of N.P.C.'s will be needed. Opponents, helpers and background characters must be created as needed, and recorded down if it seems that the player characters will meet them again. Use the disposition chart to make N.P.C.s come alive.

The lack of "monsters", alien beasties and "wacky" environments in ALBEDO will cause campaigns to be oriented towards urban or space based adventures. The basic premise of ALBEDO is that people are the major part of the game environment, so use them to give colour and complexity to a world rather than odd atmospheres and carnivorous wildlife.

**Useful concepts.**

**Non destructive activities:** Players must be encouraged to have their characters fulfil themselves in non destructive ways. Players could have their characters engage in intellectual activities such as publishing work in the net (poetry, essays, games). They can also engage in sports (break up the heavy brain work of an investigation with a practice bout of stick fighting - yeah!) A good adventure needs variety and background, just like any decent story.

**Time:** Most role playing adventures will be organised on a day by day/event by event linear progression. Time may be "contracted" by summarizing tedious or irrelevant events. On the otherhand, crucial time periods will be handled in great detail (eg. combat or delicate tasks).

One literary "time trick" which role playing adventures usually ignore is the flash back. A flash back creates a situation where play jumps back in time to determine the flow of past events. Flashbacks can make an interesting digression from normal play, and can be useful for creating prior relationships with other characters.

**Punitive duty:** The E.D.F. is fond of punishing misdemeanours with punitive duties. Characters who have offended the powers that be might find themselves assigned to doing the tasks that no-one else wants.

**N.P.C. GENERATION CHART.**
As an aid for struggling umpires, we also provide the following random chart which may be used to quickly provide racial types for casual encounters.

<table>
<thead>
<tr>
<th>Dice roll (1D100)</th>
<th>ANIMAL TYPE</th>
<th>01-05</th>
<th>06-07</th>
<th>08</th>
<th>09-18</th>
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<th>20-21</th>
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<th>43-47</th>
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<td>69</td>
<td>70-71</td>
<td>72-73</td>
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<td>&quot;other&quot;</td>
<td>58</td>
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</tbody>
</table>

For a casual encounter, simply generate the type of creature the player character's have bumped into, and determine the creature's disposition. If the player characters are going to have to do any real business with the N.P.C., then 2D6+3 should be rolled to determine the N.P.C.'s REASON score. Other characteristics should be generated if the N.P.C.is going to become a frequently encountered character.
Role playing hints.

The random result chart: Hidden amongst ALBEDO's charts and tables is a strange little item marked "Random result chart". This is designed as a role playing aid, finally formalising an age old technique which goes hand in hand with the "top of the head" school of umpiring. Whenever the umpire wishes to determine the result of an action or event which is more influenced by luck or random chance than skill, a roll can be made on the random result chart to get some idea of ensuing events. With a little imagination the random result chart can be used for everything from checking to see whether the characters get a parking ticket to seeing the results of showing a security guard a set of forged papers. Needless to say, all such rolls are made in secret and are definitely not to be shown to the players.

**RANDOM RESULT CHART**
(A GENERIC ROLE PLAYING AID)

<table>
<thead>
<tr>
<th>DICE ROLL</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Best possible result</td>
</tr>
<tr>
<td>11-10</td>
<td>Good result</td>
</tr>
<tr>
<td>9-5</td>
<td>Average expected result</td>
</tr>
<tr>
<td>4-3</td>
<td>Bad result</td>
</tr>
<tr>
<td>2</td>
<td>Worst possible imagined result</td>
</tr>
</tbody>
</table>

For ease of reference, we now repeat the random character dispositions chart. Make two rolls on 1D10, 1D20 or 1D10+10 on the chart below:

**Random disposition determination.**

<table>
<thead>
<tr>
<th>Dice roll</th>
<th>Disposition</th>
<th>Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/11</td>
<td>Cautious/Reckless</td>
<td>Paranoid/Manic</td>
</tr>
<tr>
<td>2/12</td>
<td>Polite/Vulgar</td>
<td>Sycophantic/Obscene</td>
</tr>
<tr>
<td>3/13</td>
<td>Exacting/Vague</td>
<td>Perfectionist/Apathetic</td>
</tr>
<tr>
<td>4/14</td>
<td>Generous/Greedy</td>
<td>Wasteful/Miserly</td>
</tr>
<tr>
<td>5/15</td>
<td>Talkative/Laconic (reserved)</td>
<td>Hysterical/Mute</td>
</tr>
<tr>
<td>6/16</td>
<td>Kind/Cruel</td>
<td>Saintly/Diabolical</td>
</tr>
<tr>
<td>7/17</td>
<td>Responsible/Irresponsible</td>
<td>Fanatical/Amoral</td>
</tr>
<tr>
<td>8/18</td>
<td>Modest/Conceited</td>
<td>Antisocial/Messianic</td>
</tr>
<tr>
<td>9/19</td>
<td>Straightforward/Devious</td>
<td>Callous/Treacherous</td>
</tr>
<tr>
<td>10/20</td>
<td>Friendly/Cynical</td>
<td>Amorous/Psychopathic</td>
</tr>
</tbody>
</table>

Non player character records: Many games will take place in fairly close environments, and it is useful to have the characters develop relationships with people around them. Many games will benefit from the creation of a non player character folio. Whenever the player characters run into an N.P.C. with which they may have dealings again in the future, write the details of the character down on a record card for future reference. The card should detail ties and antipathies formed with player characters and other N.P.C.'s, and any relevant information such as, business deals, grudges and the like. Thus a growing collection of incidental acquaintances, enemies, subordinates and friends can be created, which will add a great deal of depth to an on-going campaign.

Harlequins: One method which can be used to add more variety to play is the use of a person aiding the umpire whose sole responsibility is the running of non player characters. Dubbed the "harlequin", such players can add a lot of spice to play, but must be carefully chosen. If the harlequin is not an imaginative and responsible person, then more harm will be done to the game than good.

In order to use a harlequin, simply roll up the dispositions of an N.P.C., decide on its ties and antipathies which are relevant to the situation, detail out any useful equipment which the character has access to, and brief the harlequin on how you want the character to be run. Give the harlequin full control over the character, but feel free to assist the harlequin however you deem appropriate. As umpire, you have the right to veto any of the harlequin's actions, but this should not be necessary if you chose your harlequin player carefully to begin with.
STAR SYSTEMS.

When an adventure takes place in an inhabited star system, the umpire should form a clear idea of the environment in which the characters will be operating. Aside from such physical details as the type of stellar primary and the general physical layout of the star system, inhabited star systems will need careful notes on the local society, politics and local attitudes to important topics.

The adventures included with the basic game are set in the TLAKATAN system. This system is detailed below. Readers who are fans of the ERMA FELNA, E.D.F. story should already be familiar with the EKOSIAK system, and can perhaps draw a few interesting contrasts between these two outworlds.

THE TLAKATAN SYSTEM.
SYSTEM NAME: Tlakatan
STELLAR PRIMARY: K2 (Orange)
NUMBER OF PLANETS: 7 (2 gas giants)
OTHER ELEMENTS IN SYSTEM: Misc. comets
POPULATION: Xocho (Tlakatan 2), 21 million (open environment),
Chalka (Tlakatan 6), (closed environment) 500.
SPHERE OF INFLUENCE: ConFed
SUPPORT %: 60 . Growing unrest.
DISPOSITION: Talkative, Straightforward

General description, Xocho (Tlakatan 2).
Day period: 27.3 standard hours
Gravity: 1G
Tlakatan 2 has a de-centralized population which is dispersed into numerous small communities. Xocho boasts one major concentration of population, the city of Nisha (pop 5 million). Xocho's high orbit is home to a large zero-G structure which acts as a zero-G factory, starport and shipyard.

Xocho's climate is fairly mild. Only the equatorial belt is inhabited (the population is confined to a single continent), and this zone typically has temperatures of about 26°C. The pleasant climate is somewhat marred by an extended rainy season at the end of summer, when thick fogs and torrential downpour drive everyone indoors for several weeks. Typical weather for the rest of the year oscillates between sun and showers. The local mosses and algae have mixed well with imported trees and shrubs to make an unusually verdant ecology. Dominant terrain features in the regions close to Nisha are hillocks, rivers and small streams. Most open ground is covered by a tough, springy moss, which thrives in the damp climate. Imported grasses do not yet compete.

Chalka (Tlakatan 6).
A small mining base on an inhospitable ammonia/methane world. Valuable deposits of minerals, radioactives and rare earths keep teams mining volcanic flows - dangerous but profitable work. The cramped working conditions and oppressive gravity (circa 1.2 G's) cause a high turn over of base personnel, which rotate back to the homeworld on a regular basis. The mines are currently being developed as a potential export industry.

Other activity in the system includes outposts on the moon of Xocho (Tindo) and in the cometary halo.

BACKGROUND INFORMATION:
Tlakatan was initially colonized some forty years ago by independent groups sponsored by the governments of 2 secondary colony worlds. Tlakatan became a haven for the unorthodox and the independent, and attracted a very diverse set of initial colonists. The firm local belief in planetary independence lead to Tlakatan's early entry into the ConFed, and small contingents of Tlakatanii troops served with distinction during the first stellar war. It was during this conflict that Tlakatanii soldiery gained their reputation for independent, emotive conduct and ruthless efficiency.
Tlakatan today has seen substantial changes over the last generation. The famous attitude of independence has lead to a politically active population. Recent protests and public debate has revealed a small but vocal separatist faction which resents the ConFed influence on planet and fears the introduction of stronger controls by ConFed central. The ConFed diplomatic service lists Tlakatan as socio-politically volatile.

Tlakatan has only recently acquired "state of the art" technology. Tlakatan is a capitalist world, but a strong sense of community involvement has lead to the public ownership of most essential services.

Tlakatan is a closed democracy (a democratic society in which not all inhabitants have the vote). Tlakatanii law requires its voting citizens to meet set standards of general education and current affairs awareness before they are allowed franchise. The examinations which determine a person's suitability to hold the vote include simple tests of current affairs knowledge - most full Tlakatanii citizens will have a current affairs knowledge of at least 5 and an advanced education of at least D. Only full voting citizens are allowed to become members of the Tlakatan home guard, although there is a small part time peoples' militia which accepts the non-voting public.

Tlakatan has just emerged from a major modernization program. In the wake of receding enthusiasm for technical development, political turmoil is starting to appear as Tlakatan's commitment to the ConFed is beginning to be questioned. Tlakatan is a free thinking community which does not have the elaborate security procedures found on many worlds, and thus an upsurge of terrorism is feared in the recent future.

The Tlakatanii population speaks almost pure standard, and is easily understandable by anyone, although the locals use a germanic or french style accent. The "typical" Tlakatanii will abhor the concept of close security monitoring, and is very conscious of his privacy. Locals can be quite touchy about personal questions - an individual's business is seen as his own business! The difficult period of Tlakatan's early colonisation has removed any hint of overt "sexism" from the Tlakatanii's personal attitudes (no discrimination and no deference).

Tlakatan sometimes seems to fulfil the centralist vision of a "worst case" outworld. The government and social environment actively encourages dissent, and a lax set import/export controls gives Tlakatan 2 an active underground trade network.

The Tlakatanii Homeguard.
The local Homeguard has a difficult reputation to live up to, and so indulges in a fair bit of posturing in its spare time. Tlakatanii delight in giving a hard time to off-planet consolidated tactics instructors, but will be quick to respect anyone who passes their test. Their strong emphasis of comradely loyalty and independence can take a while to get used to.

Tlakatan's homeguard is fiercely loyal to the planet, but is rife with the same divisions of opinion currently spreading through the populace. The local Homeguard currently consists of some 10,000 troops, supported by about as many part time militia. In light of the recent flare-up between the ConFed and the I.L.R., the local military is beginning a recruiting drive.

Equipment: Dress uniforms consist of sturdy moss green suits topped off with a glengarry. Field dress utilizes the standard ConFed military helmet marked with the Tlakatanii "flash", and are often worn over a loose rain hood. Uniforms include shoulder mantles and other water proofing features. The Homeguard is used to operating in a mixture of open hills and close terrain, and so uses a proportion of long rifles in its infantry squads. Local specialised vehicles include hovercraft for patrolling rivers and marshy lowlands.
Sample characters.
For those people who are familiar with the "ERMA FELNA, E.D.F." story in Steve Gallacci's ALBEDO comics, I shall now include Erma's statistics in game terms, allowing players to draw a comparison between her and their own characters.

Name: Felna, Erma - EDFSN 575 395 2020
Rank: Commander, E.D.F. Tac aerospace command (rank grade 3)
Born: 171-01-22, Anniahport, Annah (Dornthant II)
Racial type: Feline (Cat)
Frame size: Light

Strength: 8
Stamina: 10
M. Dexterity: 12
Co-ordination: 12
Reason: 13
Intuition: 10
Drive: 13
Stability: 12

Disposition: Responsible, Straightforward
S.P.I. rating: 4.0

Skill gradings:
Aerospace pilot: B
Aerospace aircrew: C
Combat weapons: D
Command: C
Advanced education (physical sciences & politics): B
Martial arts: D

1 career point was used to purchase miscellaneous skills. Erma's assorted social skills include mingle and dancing.

Specialist rating (Aerospace pilot): Spec 4
Erma has devoted herself to a professional role, and lacks skills in other areas.

Description:
Erma stands c.140cm's in height, has light gold-brown fur (slightly paler in front), dark red-brown head hair and green-gold eyes. Unlike many felines, she has only the barest stub of a tail.

Encouraged into a career in Aerospace from an early age, Erma was educated at the Homeguard academy on Dornthant. Erma entered the E.D.F., receiving her command and aerospace training at the E.D.F. academy on Danet. While in training, Erma distinguished herself by neutralizing a terrorist sniper, receiving awards for bravery and initiative. Erma was engaged in combat during the Derzon campaign, where she lost her vehicle to enemy fire and was later wounded during a ground engagement.

Upon recuperating, Erma ran afoul of a sexist faction within the E.D.F. command which conspired to remove her from combat duties. This ploy was thwarted by more responsible officers (backed by the net), who managed to have Erma transferred to the socio-politically volatile world of Ekosiak, where her talents would be of use.
As a good example of the sort of background that characters can have, I will also include the specs for Erma's friend Dea-Htuhok:

**Name:** Kho, Dea-Htuhok - CSSN 575 827 8489  
**Rank:** Assistant secretary, ConFed diplomatic corps (civil service grade 7).  
**Born:** 168-07-12, Encho city, Annah (Dornthant II)  
**Racial type:** Vulpo-Lupine (canine)  
**Frame size:** Average

- **Strength:** 9  
- **Stamina:** 9  
- **M. Dexterity:** 11  
- **Co-ordination:** 10  
- **Reason:** 12  
- **Intuition:** 12  
- **Drive:** 11  
- **Stability:** 10

**Disposition:** Polite, Responsible  
**S.P.I. rating:** 4.1

**Skill gradings:**  
- Political studies: A  
- Diplomacy: B  
- Administration: B  
- Combat weapons: D

1 career point was used to raise Dea's literacy skill, and one point was used in leadership training.

**Description:**  
Dea stands c.155cm's tall, has a tail and a rich red/brown coat with a near-white ventral countershade. She has gold green eyes (Note: Dea makes a good contrast with Jenna Shodi, another female fox, but of a different species. Jenna is of a shorter, lighter, build, and has digitigrade leg articulation. See the illustration of her on page 16 of book 1).

Dea's primary education was provided within her extended family, the clan Aldan-Kho, who trained her to pass her Dornthantii Homeguard equivalency at SD 184-11-30. The clan sponsored her through the ConFed civil service apprenticeship program in Dornthant and Danet. Dea served with distinction on the staff of the Enchawa ConFed office from SD 190-02-01 to SD192-09-20, and then transferred to Ekosiak to act as assistant to ConFed secretary Shato. Dea is currently a detached member of the clan Zha-Kho of Tochtah (Dornthant 6), but she still maintains a connection with Aldan-Kho, and is sponsoring several cousins into ConFed and E.D.F. service.

Dea's personal interests parallel her professional ones. She studies sociology and political science, and has several significant essays in the Net.

Both Dea and Erma hail from the Dornthant system. The Dornthantii accent is quite pronounced, and is easily recognized. When speaking between themselves, Dornthantii will drop into a thick vernacular which is almost impossible for non-Dornthantii to follow.
Name: Toki - EDFSN 213 395 5010
Rank: Commander, E.D.F. Staff
Born: 172-12-02, Settlement city, Charanx (Danet 3).
Racial type: Mouse
Frame size: Small

Strength: 5
Stamina: 11
M. Dexterity: 14
Co-ordination: 13
Reason: 12
Intuition: 14
Drive: 12
Stability: 9

Disposition: Friendly, Straightforward
S.P.I. rating: 4.1

Skill gradings:
Administration: A
Command: C
Aerospace aircrew: B
Combat weapons: D
Advanced education: B (Arts)
2 career points were used to raise Toki's social skills.

Description:
A strikingly warm and irrepressible character, Toki stands 116cm's tall. Her fur colour is light silver-grey, fading to near white on the ventral surfaces. Her eyes are a bright green, and she has prominent facial whiskers.

An old friend of Erma's from their academy days, Toki's initial basic education was in civilian institutions rather than military schools. She also lacks Erma's military family background. Toki has thus had to deal with a greater diversity of people than her friend Erma, and is far more at ease in social situations.

Toki has spent the last few years in a staff admin slot with the C.F.C., but has recently found herself conveniently co-assigned with her friend Erma in a squadron command position. Toki is an excellent administrator, and is not afraid to utilise unconventional methods. Though psychologically capable of combat, her temperament and training fit her for staff positions.
AFTERWORD:

This game was written for a number of reasons. While the initial concept was to produce a decent game system in reaction to a number of very average games which have appeared over the last few years, this was not enough reason to burden the world with yet another role playing game. The impetus to produce the game came from my discovery and obsession with Steven A. Gallacci's stories, and the realization that other people out there feel the same way. Fans of the Erma Felna story should find the background material enlightening, since only a small amount of the background information included in the game can be deduced from the comic strip (though fans who have carefully combed through the ALBEDO letters columns and COMMAND REVIEW editorials will have a better idea of the scenario background). I suggest that you now carefully re-read the story keeping the additional background material in mind. Fans will also recognize the bulk of the internal illustrations as panels from "Birthright" and "Erma Felna, E.D.F." - nothing serves better to illustrate the ideas behind the text.

The game has been designed to be more thoughtful and less oriented towards violence than the normal run of R.P.G's. With the exception of classic pieces of writing such as M. A. R. Barker's "Empire of the Petal Throne", most science fiction games refuse to provide the reader with any sense of background, but instead leave the player to his 20th century mind set. In ALBEDO, I have taken an inordinate amount of time to detail out the history, culture and psychology of the alternative society proposed by the "Erma Felna, E.D.F." scenario. The equipment, weapons and game system of ALBEDO have been designed to conform to the Erma Felna universe. Thus ALBEDO is unusual in restricting itself to a rigidly defined bracket of technology and culture. It is hoped that the depth of the background material will make readers see this as an advantage rather than a limitation. "Erma Felna" was designed to be a thought provoking story, and I hope that the game will live up that mark.

As a closing note, these rules owe a great debt to three ladies. Firstly to my wife, Christine, who is ever a source of encouragement and sensible ideas. Secondly to Ms Jenna Shodi, the gorgeous, plucky little fox with the musical Frantiran accent who started me on my ongoing love affair with Steve Gallacci's work. And finally to Commander Erma Felna of the E.D.F.'s aerospace command, whose adventures provided the inspiration for this game. Erma will forever have a special place in my heart - this game has been a work of love, and I hope I haven't let her down.

May your wits ever remain sharp, your eyes bright and your tail bushy,

Paul Kidd.
When Paul wrote the text to the game, he did so after nearly a year of play testing and general de-bugging, and had become very familiar with all the fussy details. And, while he mentioned all the functions necessary to get things done, he didn’t always put them together in the easiest to follow form. Fortunately, the rule books were not assembled at the same time, which allowed us to consolidate the loose and murky bits into these following pages.

**SKILL ABILITY CHART**

Part of the character generation sequence. Refer to page 40, book three, and pages 37 through 39 in book one.

<table>
<thead>
<tr>
<th>Training/Experience level</th>
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<td>8</td>
<td>10</td>
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<td>12</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>18</td>
<td>19</td>
<td>21</td>
<td>23</td>
</tr>
</tbody>
</table>

**METHOD:**

Cross index the character's ability governor with its training level to yield the character's ABILITY SCORE.

This chart can also be used as a swift means of determining the damage caused by a melee weapon. Average the character's strength with its skill with the melee weapon, and cross reference this with the weapon's damage rating to find the actual damage done.


SHOT DIFFICULTY CHART

Here's the charts covering weapons fire, as covered on page 18, book three.

Basic shot difficulty by range:

<table>
<thead>
<tr>
<th>RANGE</th>
<th>Normal Ammunition</th>
<th>Dart Ammunition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Short</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Medium</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Long</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Extreme</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

To hit a target with missile fire, roll the firer's skill vs the target difficulty on the comparison chart.

<table>
<thead>
<tr>
<th>Target status</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target is Sprinting or evading</td>
<td>+1</td>
</tr>
<tr>
<td>Target is a large, stationary vehicle</td>
<td>-1</td>
</tr>
<tr>
<td>Target is a fast moving vehicle (50 kph+)</td>
<td>+2</td>
</tr>
<tr>
<td>Target is a vehicle within 20 meters</td>
<td>-2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firer's movement</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firer running</td>
<td>+1</td>
</tr>
<tr>
<td>Firer sprinting</td>
<td>+2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of aim</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target partially obscured</td>
<td>+1</td>
</tr>
<tr>
<td>2 consecutive actions spent in aiming this shot</td>
<td>-2</td>
</tr>
<tr>
<td>Controlled burst at medium or long range</td>
<td>-1</td>
</tr>
<tr>
<td>Wild burst at close range</td>
<td>-2</td>
</tr>
<tr>
<td>Wild burst at short range</td>
<td>-1</td>
</tr>
<tr>
<td>Rapid fire</td>
<td>+1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unaimed fire penalties</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser equipped to 40 metres</td>
<td>+1</td>
</tr>
<tr>
<td>Laser equipped to 60 metres</td>
<td>+2</td>
</tr>
<tr>
<td>Non laser equipped to 40 metres</td>
<td>+2</td>
</tr>
<tr>
<td>All other unaimed fire</td>
<td>+3</td>
</tr>
</tbody>
</table>

Unaimed fire at ranges in excess of 200 metres will miss.

Roll on the weapons breakdown chart whenever an unmodified roll of 12 is made on any roll to hit.

**Weapons breakdown chart.**

**Roll 2D6**

- 2-7 No effect.
- 8-10 Stoppage - 1 action required to clear round from chamber.
- 11-12 Jam - Roll M.Dex vs 10 to clear the weapon.

Once a hit has been scored, determine hit location, damage results, shock results and blood loss.

**Missile weapons hit location:**

<table>
<thead>
<tr>
<th>Dice roll</th>
<th>Location struck</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2</td>
<td>Head</td>
</tr>
<tr>
<td>3,4</td>
<td>Arms</td>
</tr>
<tr>
<td>5,6</td>
<td>Chest</td>
</tr>
<tr>
<td>7,8</td>
<td>Abdomen</td>
</tr>
<tr>
<td>9,10</td>
<td>Legs</td>
</tr>
</tbody>
</table>

**Hits to the head roll another D6:**

<table>
<thead>
<tr>
<th>Front</th>
<th>Side</th>
<th>Rear</th>
<th>DRMs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Skull</td>
<td>Skull</td>
<td>Skull</td>
<td>Fired at from below: +1</td>
</tr>
<tr>
<td>1 Skull</td>
<td>Skull</td>
<td>Skull</td>
<td>Fired at from above: -1 or -2</td>
</tr>
<tr>
<td>3 Skull</td>
<td>Skull</td>
<td>Skull</td>
<td></td>
</tr>
<tr>
<td>4 U. face</td>
<td>Skull</td>
<td>Skull</td>
<td></td>
</tr>
<tr>
<td>5 L. face</td>
<td>L. face</td>
<td>Skull</td>
<td></td>
</tr>
<tr>
<td>6 Neck</td>
<td>Neck</td>
<td>Neck</td>
<td></td>
</tr>
</tbody>
</table>
ACTION SEQUENCE CHART
These charts support the text from page 15 book three, discussing combat action.

ORDER OF ACTIONS

<table>
<thead>
<tr>
<th>Phase</th>
<th>1</th>
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<tbody>
<tr>
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<td>4</td>
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<tr>
<td>3</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>2</td>
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<td>X</td>
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<td></td>
<td>X</td>
<td></td>
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<tr>
<td>1</td>
<td></td>
<td></td>
<td>X</td>
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<td></td>
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</tr>
</tbody>
</table>

Wherever an "X" appears, the character receives an action.

When two characters both have actions occurring simultaneously, the character with the highest initiative rating acts first (roll initiative dice). If an initiative tie occurs, both actions are performed simultaneously.

POSSIBLE ACTIONS:
The actions which a character may perform in one of its action phases include the following:
- Aim a weapon
- Communicate
- Drive vehicle
- Fall prone
- Fire a weapon
- Load a magazine into a weapon
- Melee combat
- Observe
- Prime grenade
- Remove an empty magazine from a weapon
- Stand up
- Throw a grenade

FIRE PROCEDURE:
1 - Decide type of fire to be made (single shot, controlled burst, wild burst).
2 - Roll to hit.
3 - Roll hit location (best done simultaneously with the character's roll to hit).
4 - Roll to penetrate armour (if any).
5 - Roll for damage effects on target.
6 - Roll for shock effects on target.

Initiative dice determination.
Character's Intuition Score | Type of Dice Rolled
5 to 8 | 1D6-1
9 to 11 | 1D6
12 to 13 | 1D6+1
14 to 15 | 3D3

Firearm handiness ratings.
Handiness category | Initiative modifier
Very handy | 0
Handy | -1
Cumbersome | -2
Very cumbersome | -3
CHARACTER GENERATION FLOW CHART:

1) First comes the fun bit! Select your character's race. See pages 16 to 22 of book one for the list of sapient races.

2) Dice time! Roll the character's species based characteristics (Strength, Stamina, Manual Dexterity, Coordination and Stability). These characteristics are rolled on the chart on book 24 of page one. You will need to refer back to the list of character races from pages 17 to 22.

3) Roll the character's Reason, Intuition and Drive characteristics on 2D6+3.

4) Work out the character's Maximum recoil rating, Actions per turn and initiative dice by referring to the charts on pages 24 and 25 of book one.

5) Create the beginnings of a personality for your character by rolling its Disposition on the chart on page 26 of book one. Feel free to make any other notes that you think might make your character more realistic or entertaining.

6) Record the character's basic skills as listed on page 32, book one. This process is done in three stages, all of which are detailed on the same page.

7) Decision time again! Choose a career for your character. See pages 32 to 36 of book one for a list of guidelines and suggestions.

8) The character has 12 career points to spend on developing its professional skills. Use these points to purchase skill packages as shown on pages 29 to 31 of book one. Page 28 of book one also shows how career points may be spent on raising individual skills.

9) The character now spends a further career point on buying skills relevant to a hobby, sport or side interest.

10) Now comes the tedium bit. Work out the character's skill ability scores for all of its skills. This is done by cross indexing the character's governor with each skill with the skills training level on the skill ability chart on page 37 of book three. The governors for each skill may be found on pages 37 through 39 of book one.

CONGRATULATIONS! You now have a character!

In order to put the final polish on your alternate persona, you might need to finalize some details as to the character's actual rank and position. The character should also roll up its ties and antipathies as shown on page 10 of book three.
The game, as previously mentioned, is based on the story Erma Felne, EDF in the comic ALBEDO, Anthropomorphics. If you're interested in the original, as well as other comics which also have alternate animals, rather than traditional comic or cartoon funny animals (like the various Disney comics and others), we've listed a few below. Much of the inspiration of Erme and ALBEDO, especially the idea of a "funny animal" science-fiction story, done in black and white, end self-published, came from what had come before. I'd been reading end collecting various underground and then the new so-called "ground level" comics in the seventies and the idea of doing similar work myself took hold. While no one title or artist was the direct inspiration of what was eventually to become ALBEDO, several stand out and could be of interest to the reader. First among them is Vaughn Bode, and his various wizards, lizards, and ladies, which are fortunately by end large still available in reprints, such as DEADBONE EROTICA, and various issues of JUNKWAFLE. Earlier editions and other material are too many too mention but worth pursuing, and his son, Mark, has picked up where his father left off. Robert Crumb end his FRITZ THE CAT, and innumerable other works, is of major significance in the seriously underground genre. His, and other work can else be found in the infamous ZAP and SNARF underground comics, though only the earlier issues were my favorites. More directly influential was the Star-reach line of "ground-level" comics, which presaged the current alternate press industry by nearly a decade. STAR+REACH, an anthology science-fiction and fantasy comic end QUACK, their funny animal book, were my favorites of the time, and highly recommended if they can be found.

Another funny animal book of the time was NO DUCKS, the title of which was inspired by the rash of duck caricature, no doubt brought on by the resurgent interest in Carl Bark's Doneld Duck stories and Steve Gerber's HOWARD THE DUCK. NO DUCKS nr 1. hed whet I still consider one of the best comic stories ever written, the adventures of Cap' and Crew of the Bunn E, whose artist end writer I can't remember, and my copy of the book is buried in storage, but it's great! And might be available in reprint somewhere (?). Speaking of which, the original HOWARD THE DUCK was also a favorite, at least the first dozen issues or so. Last, and worth an awful lot of indirect credit, more for the idea of independent publishing, but is still a recommendable book, even without having funny animals, is Wendy end Richard Pini's ELFQUEST. Yeeh.

Now I get to rattle off various current titles that fall into, broadly, the related anthropomorphic genre. There's a lot not mentioned, like the Disney titles and various comic adaptation of cartoon products, mainly because such fell into a separate funny-animal category, still worth checking out, but has little in common with these. Then there's other stuff I haven't seen or have forgotten, and lastly and worth looking for, are the various fanzines that specialize in funny animals end related stuff. The quality varies wildly, but there's interesting material out there. For a good place to find out more about the small press and fan press world, see THE COMICS FANDOM EXAMINER (COMICS F/X): P.O. Box 95968, Seattle, WA 98145-2968.

THE ADVENTURES OF CAPTAIN JACK, kind of screwball space opera, different and interesting. Fantagraphics Books: 1800 Bridgegate St., Suite 101, Westlake Village, CA 91351.

THE ANIVERSE, S.F. adventure, don't know a lot about it. Webeee Comics: P.O. Box 7144, Flint, MI 48504.


CRITTERS, funny animal anthology, issues nr 1-6 and 12-17 include Birthright, a distant sequel to Erma Felne, EDF. Fantagraphics Books.

CUTEY BUNNY, very silly, hard to find, but worth it if you do. J.Q. Enterprises: P.O. Box 2221, Hollywood, CA 90078/Eclipse Comics: P.O. Box 1099, Forestdale, CA 95436.

THE DREAMERY, not much funny animal but good stuff anyway. Eclipse Comics.

EQUINE THE UNCIVILIZED, a great spoof of sword-wielding barbarians end the spin-off, RED SHETLAND is a hit as well. Graphxpress: P.O. Box 32292, Tucson, AZ 85751.

FISH POLICE, hard boiled picne detective. Comico: 1547 Dekelb St., Norristown, PA 19401.

FRANK THE UNICORN, hard to define but interesting, advocating literacy, do several other titles, worth examining. Fragments West: 3908 East 4th St., Long Beach, CA 90814.

FUSION, only indirectly has anthropomorphics, but interesting science fiction series, co-art and story by S.A. Gallacci. Eclipse Comics.

MORPHS, sort of grab-bag of anthropomorphic stuff. Graphxpress.

SPACE ARK, zeny science-fiction adventure. Apple Comics: P.O. Box 787, Bethel, CT 06801.

MENAGERIE, anthropomorphics anthology. Chrome Tiger: P.O. Box 547, Bellevue, WA 98009-0547.


XANADU, romantic fantasy with anthropomorphized mundane and mythological characters. Thoughts & Images.

Finally, to wrap things up, I'll hype my stuff. ALBEDO, Anthropomorphics, and Erme Felne, EDF is available through Thoughts & Images, P.O. Box 15168, Portland, OR 97215. Also available are the collected Erme stories which make up COMMAND REVIEW Vol. 1 and 2. There's all manner of ancillary merchandise also available, though it would be best to inquire, rather than try to list all here. Same thing with additional related gaming products which are already being planned. Direct comments or questions on the game can come to me, Steve Gallacci, at P.O. Box 19419, Seattle, WA 98109, and I can also forward stuff to Paul Kidd, the author of the game, remember?
SCENARIO 1

THE CATAPAULT. A shoot 'em up adventure for 2 to 4 military characters (preferably including at least one pilot).

General Information - Tindo.
The only moon of the planet Tiakatan, Tindo provided readily accessible minerals during the early stages of colonisation in this system. The ores so cheaply scooped from the moon's cratered surface were initially shoved into planetary orbit by means of a large linear accelerator. Four decades later, the moon Tindo is no longer important as a source of mineral ores. Mines on the planet's surface now supply the needs of Tiakatan's growing industry, and Tindo is now visited only by private prospecting concerns who still prospect for fresh ore deposits, basing themselves at the site of the old linear accelerator. The accelerator itself no longer operates, since it was deemed too dangerous to lob unguided masses so close to inhabited space. The linear accelerator still remains in place today, stretching out across the lunar landscape, but the system's fire control computers, main power source and supporting hardware have been removed or scrapped.

Immediately before our adventure begins, the privately owned mining base on Tindo will have come under attack by a group of terrorists (representing a radical anti-governmental political faction). Having hijacked the regular supply freighter, the terrorists stormed the base, massacring all they could find. The group have brought with them a micro-processor core and enough hardware to repair the linear accelerator, which they intend to use as a means of bombarding the planetary surface. Most of the station personnel have been killed by the terrorist group. Two persons have managed to conceal themselves behind an access panel in the living quarters, where they fearfully await new developments.

The player characters are all present on a light military aerodyne making a routine training mission in the general region of Tindo. It is up to the umpire to integrate player characters into the scenario in as reasonable a manner as possible - i.e. they might be new trainees, old hands supervising new recruits, or even observers. The umpire should feel free to create N.P.C. recruits in sufficient number to flesh out their ship's crew to about 4 persons.

Tiakatan Homeguard training flight T7, 2 hours out from the planet Tiakatan is in trouble. The mission's training officer, Lieutenant Aldrik (the pilot of the squad's aerodyne) has collapsed with appendicitis (or its nearest equivalent), and the squad must make their way to the nearest medical facility - in this case, the mining base on Tiakatan's second moon, Tindo.

In 30 minutes after the players land, Tindo will have rotated enough for the newly repaired linear accelerator to be brought to bear on the planet below. In addition, the sick flight officer will have a burst appendix and peritonitis before the next hour is up. Time is of the essence.

To supplement the party's side arms, the arms locker of the party's assault aerodyne contains 2 assault rifles and 4 magazines of ammunition. The arms store is kept locked, and the key is in the training officer's pocket. Opening of the arms locker is an action which player's will have to be prepared to justify to their superiors after the scenario ends.

- This adventure can often be played with "civilian" characters (recently called up for service with the local Home-guard due to the I.L.R. incursion). Start the scenario with the sudden illness of the training officer, Lieutenant Aldrik. (i.e. if the characters are all new recruits, the umpire might want to have the lieutenant succumb to his illness while the squad is doing its first zero-G movement drill). Aldrik is a strength 10 Possum (brush tailed), and should prove to be a rather massive load to lug around. In his illness he is neither particularly still, nor particularly quiet. The solar noise in the region of Tindo's day side is currently interfering with radio (a fact which the terrorists are quite aware of), and so a call to the mining base is out of the question.

Special considerations:
1 - Gravity. The local gravity is about 1/8th of a G. This makes for big jumps and no running movement.

2 - Vacuum effects. Remember to check for the sealing of punctures and fatigue loss caused by vacc suit pressure drops.

3 - Wall toughness. Walls have a penetration resistance of 12. Multiple breaches might defeat the ability of the bases puncture sealants (i.e on a 6- on 2D6).
THE STATION:
The party will arrive at the mining base just as the planet Tlakatan begins to rise above the moon's horizon. The outside temperature begins to climb drastically in the combined sunshine and planetary light. If an unskilled pilot is flying the party's aerodynamic, have it come down fairly hard and develop a hull breach - but don't kill the party before the adventure really begins!

The rails of a huge linear accelerator are the dominant feature of the base. At one end of the "catapult" is the base itself, a set of three geodesic blocks interlinked by pressurised tubes. A broad landing area is currently occupied only by an aerodynamic freighter. The loading cradles for the catapult are currently empty, although a number of 8 tonne mineral "packets" are ready for dispatch.

A fly over of the nearby crater walls will reveal another set of domes some 10 kilometers away. These domes are surrounded by vehicles loading refined ores for transport across to the catapult loading bay.

Please note that the terrorists inside the base will not notice the Homeguard ship landing, but will be aware of any airlocks opening or closing electrically. Manually operated emergency access ports can be found in the walls of the greenhouse and the living quarters.

Area 1 - Landing field.
A cleared section of ground. The main feature at the moment is a commercial freighter parked at the edge closest to the catapult station's buildings. The vessel has its cargo pallet open, and its running lights on.

A closer inspection - The body of a vacc suited cargo supervisor is sprawled across the freighter's cargo ramp. He has been shot from behind by an automatic weapon. Two more bodies may be found at the back of the freighter's cargo bay, neither of whom wear vacc suits.

An enormous cable runs from the power plant of the aerofreighter to the vicinity of the linear accelerator. The ship's power plant was used to supplement the base's meager reactors as the linear accelerator's capacitors were being charged up. There is no power currently running through the cable.

Area 2 - The cargo loading bay.
The enormous loading mechanism for the linear accelerator is the main feature of this location. Five minutes before the planet revolves fully into view, an 8 tonne slug of metal will be grappled and loaded into the launching cradle. Any characters who see this and who have not yet realised what is going on may make an intuition roll vs 10 to suddenly see the terrorist's plot.

The loading mechanism may not be jammed from this location. It is too massive to be physically harmed or even slowed by the character's means at hand.

Area 3 - The greenhouse.
The greenhouse has transparent walls covered in strips of opaque shutters. The interior consists of a large open space occupied by many tiers of plants growing in trays of hydroponic solution. Three bodies lie scattered about the room, all in the loose overalls of mainenance personnel. One has been ginned down on the run, while the other two have obviously been executed in cold blood (neck shot). "Tell tales" (small gas filled spheres with adhesive coated interiors) have floated over to one wall, where they have burst and plugged a set of bullet holes made in the compartment's wall.

A smashed and broken robot lies up against one wall (it is jammed across the emergency access port to the surface - only a small framed character can slip past unless the hulk is shifted). A brief inspection will reveal that the robot has been deactivated due to small arms damage to its power pack, but that the A.I. core is still operable. If it can be given an appropriate power source (it could be plugged in to a wall socket or even the power pack from a player's life support gear), the players would be able to talk to the robot brain. If the players can convince the A.I. that they are working against the terrorists (ir provide Homeguard I.D.), then it will suggest that they net it into the base's computer system to gather intelligence. When it does so, it will discover the positions of the terrorists, the constant oxygen and power drain caused by the hidden crewmen in area 4, and the firing orders set into the catapult computers. Since the terrorists have a monitoring program set up, the robot will not be able to change any aspects of currently running programmes without alerting the whole base.

Area 4 - Living quarters.
This zone is not under pressure, due to the large number of punctures all through the exterior walls. The living quarters are a shambles. Bunk compartments and a common room are splashed with the remains of over thirty individuals. Characters should roll their coolness under fire skill vs 5 to avoid being overwhelmed with nausea. Hidden behind
an access panel in the common room are the station’s janitor and medical orderly, both in vacc suit liners and helmets. They are beginning to suffer the discomfort of improper preparation for vacuum, but are too fearful to show themselves. They are currently linked to the station’s oxygen supply via umbilicals.

A small armoured store cubby near the common room contains a box of mining explosives and detonators. Grenade strength explosives may easily be made from individual sticks of explosive wrapped in wire.

**Area 5 - Command center.** 5 terrorists now occupy the computer center, awaiting the opportunity to open fire on the planetary surface. They wear impact armour over their vacc suits, and carry assault rifles and assault carbines. One terrorist is near each of the three airlocks and 2 hover over the computer terminal goofing off and boasting of their recent exploits.

To the rear of this area is the infirmary, with its attendant medical computer. A few choice moans from Lieutenant Aldrik might occasionally serve to remind players of why they came to the mining station in the first place . . .

**Area 6 - Power plant.** Buried several metres under the command center is the base’s fusion power plant. An access tube leads up into the command center behind the computer center. Access from the outside may be made into the power plant by a well insulated character through the plant’s auxiliary maintainence hatch.

**POSSIBLE PLOYS:**
The command center is only attackable by surprise. This is best achieved by using the robot brain to locate the terrorists and then either sneaking in through the power plant, or puncturing the walls or fiddling with the base’s computers to draw a few of the terrorists outside.

Interesting effects might be made through proper use of the robot brain, which can be used to operate much of the base’s automated equipment. A true maniac might even lift off the parked freighter and crash it into the command center, although this is not a recommended technique.

To truly finish the adventure, Lieutenant Aldrik must receive proper treatment, which means locating the hidden medical orderly. The other alternative will be a nerve wracking amateur operation under the guidance of the medical computer!

This adventure was run as a simple introduction to the ALBEDO combat system during playtest sessions at the Melbourne ’87 “Arcanacon” convention. It has clearly been designed as a “shoot ‘em up” for those who thrive on such things. This does not mean that the adventure must degenerate into a shooting match. One group managed to complete the adventure without firing a shot by welding terrorists into corridors, getting the drop on others from behind, and other well thought out ploys.

**The rewards:**
The following bonuses to the characters’ self image/ego ratings should be made at the conclusion of the adventure:

Save lieutenant Aldrik: +1

Finish scenario with no fatalities in the party: +1

Finish the scenario with major losses to the party: -1

These bonuses/penalties are in addition to those granted through normal play. As this is a fairly short adventure, there will be few opportunities for characters to gain experience in their skills. Allow all characters who were exposed to the carnage in area 4, or who participated in a firefight to roll for an increase in their coolness under fire skill.

As a final note to this adventure, we should deal with the worst case scenario where the terrorists successfully launch mineral packets towards the planet. If the player characters managed to send a message of warning out to the local Homeguard’s aerospace command, then the missiles will be intercepted well before they impact. The terrorist’s plan relied upon complete surprise for its effect.
SCENARIO 2.

TROUBLES ON TIAKATAN. - An adventure outline for 1 character.

This adventure is designed as an outline for an ongoing adventure for a single E.D.F. officer. The character should be from an E.D.F. combat arm, and may be of any rank from lieutenant on up (increase the ranks of the trainees to captain if the E.D.F. officer is of rank grade 3 or above). The character has been posted to the planet Tiakatan as a "Consolidated Tactics Co-ordinator" - an officer responsible for acquainting local homeguards with the latest E.D.F. doctrines and techniques to prepare them for close co-operation with E.D.F. forces. Postings to obscure planets as a CTC instructor can be a means of removing troublesome characters or punishing misdemeanours, so the player character might not be overjoyed with his new assignment.

The game will begin with the player character's arrival at the Nisha shuttleport (16kg kitbag in hand). Allow the player to read the background information on the Tiakatan system before commencing play. The player should be encouraged to choose his equipment before finding out where his new assignment will take him.

Referee's synopsis: This adventure is designed to be relatively harmless and non-violent, and should involve a lot of problem solving and interpersonal relations. The newly arrived E.D.F. officer is subjected to a series of witty practical jokes instigated by a couple of the base personnel. To enable himself to live in peace, the CTC instructor will have to identify the culprits and play a joke of his own.

Non Player Characters:
The Colonel
Name: Colonel Hupo
Race: Wolf
Str: 13 Sta: 12 M.Dex: 10 Co-ord: 9
Reas: 12 Intu: 9 Dye: 10 Stab: 12
Disposition: Cautious, Laconic
Description: Described more fully in scenario 3, Colonel Hupo has a number of troubles at the moment. He is therefore uninterested in hearing about trivial problems. Hupo fully expects the trainees to have pranks planned (Hupo went through his own "ordeal of fire" when he first arrived with the unit). He has a pretty good idea of the people behind it, but is content to leave the player character to its own devices unless the situation gets out of hand.

The tech crew
Name: Snr Tech Toqueti
Race: Rat
Str: 5 Sta: 12 M.Dex: 12 Co-ord: 11
Reas: 9 Intu: 13 Dye: 10 Stab: 9
Disposition: Talkative, Friendly
Description: Snr Tech Toqueti is a humorous, affable character who rarely shuts up. Wherever he goes, he keeps up a constant running dialogue in a thick local accent. Toqueti is a talented mechanic, gambler and story teller. He is also a major participant in the practical joke conspiracy. He gets on very well with Lt Keeki, and has been known to spend his free time in Keeki's company.

The trainees
All trainees have skill ratings of about 10 in their major professional skills.

Name: Lt Mixtli
Race: Budgerigar
Str: 5 Sta: 11 M.Dex: 12 Co-ord: 13
Reas: 9 Intu: 10 Dye: 11 Stab: 12
Disposition: Straightforward, Conceited
Description: A colorful character who can easily become annoying. Mixtli has usually done everything that you claim to have done, only he did it better. His airs and graces can swiftly become an irritation.

Name: Lt Chichimek
Race: Cat
Str: 8 Sta: 9 M.Dex: 11 Co-ord: 11
Reas: 11 Intu: 12 Dye: 13 Stab: 10
Disposition: Talkative, Polite
Description: An interesting fellow. Chichimek has a ready sense of humor, a hugely active imagination and an easy going (though proud) nature. He is a natural snoop, and will keep careful tabs on the activities of the player character out of a clinical interest. If befriended, he might prove to be a useful companion. He firmly believes that people should not be annoyed or irritated, since he wishes that others would do the same for him. Getting him into a practical joke conspiracy is thus a difficult task.
Name: Lt Keeki
Race: Racoon
Str: 8  Sta: 10  M.Dex: 12  Co-ord: 10
Reas: 13  Intu: 9  Dve: 12  Stab: 10
Disposition: Devious, Laconic
Description: A man of few words, Keeki usually remains silent unless he has something to say. When he does voice an opinion, it is usually worthwhile. Possessed of a good sense of humor, he will often interject witticisms where they can do the most damage. Imaginative and competent, Keeki will tend to quietly go off and do a task while others are still talking about it. He is good friends with technician Toquetl, their opposite personalities actually seeming to compliment each other.
Keeki is the instigator of most pranks. Player characters might dismiss Keeki as a suspect early on in the scenario, since at first meeting he can seem very dour.

Name: Lt Topekah
Race: Rabbit
Str: 8  Sta: 12  M.Dex: 11  Co-ord: 12
Reas: 12  Intu: 10  Dve: 12  Stab: 8
Disposition: Modest, Responsible
Description: A female officer, Topekah is currently in a very strange mood, having been hurt by some of the rumors and gossip running around the base. With the outbreak of hostilities with the I.L.F. seeming imminent, Topekah is very sensitive about her race, since she feels that other people might suspect her loyalty. She is currently overcompensating for her insecurity by flinging herself into her job with excessive zeal.

Welcome to Tlakatan.
The Newly arrived E.D.F. officer will be met at the shuttleport by senior tech Toquetl. The weather is drizzle turning slowly into a thorough rain shower, and this is the point that the player should discover that he lacks proper rain gear. Toquetl will ferry the P.C. to the local ConFed center to meet the C.F.C. secretary, and will then drop the character off outside the visitor’s quarters at the Takatoo Homeguard base just outside of Nisha central. Toquetl will babble on for most of the trip about nothing in particular.
Once the character has found its quarters, it will want to drop off its bags and go to see the base commander (Colonel Hupo). The sudden rainstorm makes this an unattractive prospect. Laid out on the bed are a local tourist’s road map, a key to the quarters and a heavy rain coat. Players should be encouraged to have their character put the raincoat on, and go off to the officer’s club in search of Colonel Hupo.

The "raincoat" is actually a wet weather protective suit used by disaster relief crews. It consists of a hood, and overalls (with the word "disaster" stencilled across the shoulders), and is several sizes too big. The net result once the suit is worn looks ridiculous. If the player character greets the colonel dressed in the suit, the Colonel will have trouble controlling his smirk, and other officers will eventually excuse themselves and move away, choking back laughter. Once actually in the officer’s club, the P.C. will begin to notice that no-one else wears this sort of gear (they usually use umbrellas). The mess orderly is in on the joke, and will usher the character straight across to colonel Hupo giving it the option of taking the raincoat off.

The raincoat event is typical of the sort of prank played upon helpless visitors by the locals. Feel free to think up more of your own...

The pranksters.
The mastermind behind the pranks is Lt Keeki, aided and abetted by Snr Tech Toquetl. The rest of the trainee crew suspect that Keeki is behind the practical jokes, but will keep this knowledge to themselves and watch the fun.

The jokes are being played in a spirit of fun, and are not intended to hurt their victim. Make the newly arrived E.D.F. officer feel isolated, picked on, conspired against if you desire - but most of all, try to make him feel challenged!

The way to stop the pranks is by winning the respect or affection of the pranksters. This is best done by having the character play a practical joke of his own (preferably something humorous and devastating). If successful, the pranksters will delightedly bow to a fellow spirit, and will treat the player character to a night out by way of apology. Suffering through a practical joke will cost the character self image, but a successful retaliation will recover all lost ego points, and will win friends and respect among the base personnel.

The training regimen.
The player character will hold daily classes with his trainees. A field exercise might be organised as an activity, and this could provide a change of pace. On the other hand, it also provides openings for pranks.

The training program might also include work on simulators, which can be played out as minor tasks and adventures. Lt Topekah will provide an easier opponent for electronic battles.
Sample pranks.
The pranksters are clever. They always arrange for a third party to distract the player during a time when they are setting up a joke, and cover each other with pre-arranged alibis. A clever player will lay a trap for the pranksters (such as giving them an opportunity to sabotage his quarters and watching from cover). The bases A.I. computer can become a useful friend and source of intelligence.

Pranks are rated as average or minor events.

Suffering from a practical joke will cause the player to roll on the random self image loss/gain chart. Minor events will cause a lower loss of self image. All self image points are temporary (lasting a few days only), but stay in effect for the whole scenario. Intuition roll may be used to allow characters to discover pranks before they take effect, but only if the player shows due suspicion or caution.

Prank 1: Binoculars.
MINOR: On a field exercise, the player character's field glasses are sabotaged. The eyepieces will leave a dense black ring around their user's eyes. Used to the best effect immediately before the P.C. reports to the Colonel, it requires the pranksters to gain access to their victim's gear.

Prank 2: Vehicle sabotage.
AVERAGE: A good gag to play before a field exercise. Toquetl will arrange for something spectacular but non dangerous to happen to the player character's vehicle. An AFV might be jacked up with its wheels just out of contact with the ground. Air vehicles might have lavender smoke flares attached to their rear etc.

Prank 3: The "grease gun".
MINOR: After the incident in (2) above, the player character might want to check his vehicle over very carefully before using it again. A sabotaged "grease gun" (a device used to spray lubricating powder into areas which seem to need lubricating) which shoots backwards all over the character could be fun. Another thing Toquetl might try is leaving something under the player character's seat in such a way that it will be seen. When dislodged, it will shoot a blob of fire retardant foam into the character's face.

Prank 4: Night alert.
MINOR: Lt Keeki has been on duty in the Colonel's office and overhears plans for a night alert exercise. With this in mind, he performs an act of sabotage on part of the E.D.F. officer's gear. Keeki will probably simply swap the player character's clothes over for a smaller or grosly larger set, but feel free to think of other things he might try. This prank gives a definite clue as to who is behind the pranks - careful questioning will reveal that only Lt Keeki could have found out about the exercise in advance.

Retaliation.
There are many opportunities to play pranks on Keeki and Toquetl. The other trainees will watch the player character's attempts with interest, but will not warn the victims unless the player's intended prank seems dangerous.

The rewards.
Once retaliation is made, the player character recoups all lost self image points and gains one or two extra points into the bargain.

If the player succeeds in playing a funny joke on Keeki and Toquetl, then all characters listed in the start of the scenario will roll for the experience increase with the player character (including Keeki and Toquetl). The player character might also be able to get a free night out on the town at the expense of the practical jokers.
SCENARIO 3.

The party - a scenario for any number of players.

This scenario is designed as an introduction to alternative role playing (game playing without doing war crimes). As such, we shall provide a large number of characters with whom the players must interact in an essentially non-violent situation. Most of the action will be provided by the players as they try to deal with the umpire run personalities. The party scenario is a perfect opportunity to experiment with the use of a "harlequin" during play. This scenario makes a good addition to a campaign game, where the characters have been given a reason to attend the party and have become familiar with their own characters.

Although designed for any number of players, the scenario will work best when run for one player at a time. In the swirling environment of a party, it is difficult for any two people to remain together for long, and so it is best to run one player alone for a while, and then send them out to make the coffee while someone else has their turn. Should two characters feel an unhealthy need to hang out together, then use an N.P.C. to separate them at the first worthwhile opportunity.

BACKGROUND:
A formal reception is to be held at the ConFed Secretary's's residence, Tlakatan. Each player character has either been invited, has wrangled an invitation or has gate-crashed. The player must select one of the goals below as the primary goal of his or her character for the evening:

- Make a good impression on the "right" people.
- Collect scandal.
- Seduce someone.
- Attract as much attention as possible to oneself without being thrown out.

These "goals" are chosen as an example of what will make the character "feel good" or "feel bad" during the evening, and thus give a guide to what will trigger changes in the character's self image rating. The goals chosen for the evening must be in keeping with the character's disposition.

Each player must then declare what their character will wear and carry to the party. Characters who do not wear formal gear will be denied admittance, or be forced to borrow a suit from the host once they arrive. Keep a careful track of characters who are carrying guns or weapons of any kind.

As the game progresses, keep a careful track of the new acquaintances and enemies which the character makes, and any fluctuations in self image which are triggered by events at the party. The party will last for about 6 hours before people will be encouraged to leave by the hosts' staff.

To impress someone (ie force an NPC to roll for random tie experience increase with a player character), the player must convince the umpire that he or she can successfully perform an act or carry out a conversation which will endow the target N.P.C. with a belief in the player character's wit, charm, intelligence, or its skill or experience in a field in which the N.P.C. has an interest. To aid in this, each major N.P.C. is given one or more interests. In each of the above cases, roll a characteristic check to see how successful the attempt has been. Roll the player character's reason vs 10 if the player was trying to impress someone with anything but its charm. If
charm was being used, use the character's intuition for the test. In each of the above cases, a skill in *mingling* may be substituted for the character's raw intuition or reason score, and a skill in *repartee* will allow the character to roll this skill vs the target's reason to be a successful "wit". Note that if the character exceeds the minimum required roll by more than 2 when in conversation with people of vulgar, dull, deceitful, concealed or cynical disposition, that person will develop a distaste for the character (negative experience), having just been "shown up" by the player character's efforts. Likewise, if the player fails a roll by the same margin in conversation with persons of any disposition, he or she has managed to entirely "underwhelm" the listeners, and also earns their distaste.

Flattery can get you everywhere. A roll of the player character's *intuition* vs the *reason* of the target makes for a successful bout of flattery (and triggering and automatic roll for positive tie experience increase) unless the target is of a cautious, cynical or straightforward disposition. A DRM of -2 is granted if the target is of a concealed disposition. Failed rolls create distaste as detailed above, with the distasteful failure limit being 2 above the required roll.

Would be seducers may attempt to seduce characters once they have an "opening" of some kind (providing that their "target" is currently amorously inclined). Use the favour rules to determine the success or failure of seduction attempts.

Games of chance can be simulated by simple dice rolls. Roll on the comparison chart comparing the gambling skills of the contestants, playing each off against the other until one gambler has won.

Alternatively, the players might wish to actually play cards or some other such game. This is a very good opportunity to bring a harlequin into play as one of the gamblers. Allow the player to hold an extra card in his hand if he has more gambling skill than his opponent.

**EVENTS AT THE PARTY:**

The ConFed secretaries residence on Tiakatan has a minimal level security monitoring system coordinated by an A.I. computer. The residence and the city of Nisha's ConFed central mission are thus unique on this planet, which strongly resents the invasion of privacy which such monitoring represents. Many guests will be quite self conscious during the early part of the evening, since they are all nervous of the A.I.'s constant scrutiny.

The monitoring system includes audio pickups and visual/thermal imaging monitor cameras in all rooms of the house and in strategic areas about the garden. These cameras will normally pick up the presence of concealed firearms on a person.

During the evening, an attempt will be made on Secretary Marek's life. The attempt will be made by the drinks waiter, who has been heavily "conditioned" by a terrorist group to perform this task.

At 6.30 pm, a noisy group of political activists will attempt to enter the building to see the secretary. Although the security guards turn the interlopers away, the secretary will come forward to see what the disturbance is all about. As he does this, alert characters will notice that Tarquan Reyna (see the character lists below) will edge close to the secretary. When he sees a player character looking at him, he will give a start and retreat back into the anonymity of the crowd.
At about 8.00 pm a crowd will gather outside the main gate, and these people will begin a noisy protest against the ConfFed. An Aero 3 will arrive and deposit 6 armed Homeguard regulars to bolster the small security staff.

Once the protest begins, the security guards will go to the fence, the guests will peer out of the windows, and gambling winnings might disappear. When the attention of the guests has been gained by various rocks through the windows, the drinks waiter from the bar will approach Secretary Marek, produce a pistol (a 4 shot, 8mm pistol fashioned from some sort of "plastic"), and shoot him. Characters who remain alert will see the waiter's suspicious behaviour, and have a chance to save the Secretary (or at least to catch the assassin as he flees).

If the player characters have not been close to the Secretary, then no-one will have had a clear look at the assassin, and confusion will reign until someone thinks to check with the A.I. security monitor. Security guards will immediately begin searching the guests. This should be fun if one of the player characters smuggled a pistol or concealed weapon into the soiree...

**Characters at the party.**
The following characters should be read carefully. Only notable personalities are shown here. If other characters are desired to flesh out poker games, dances and such, roll 2D6 on the chart below to randomise an interest for the character:

2 - collecting
3 - a knowledge skill (history, philosophy, etc)
4 - arts
5 - games
6 - gambling
7 - work
8 - carousing
9 - sports
10 - sciences
11 - crafts
12 - adventure

The umpire should be free to think up his own interests for N.P.C.s.

**The characters:**
**Name:** ConFed Secretary Raymond Marek
**Critter type:** Bulldog
**Str:** 8 **Stam:** 6
**M.Dex:** 11 **Co-ord:** 8
**Reas:** 13 **Int:** 14
**Drive:** 14 **Stab:** 15

**Disposition:** Straightforward and talkative
**Ties:** Emily Marek (12), ConFed govt. (12)
**Antipathies:** None
**Interests:** Recent history, Antique vehicles.
**Description:** The host. This old fellow is a staunch ConFed loyalist, and is a sharp, calculating politician. His reputation for honesty and level headedness does much to undermine local agitation against the ConFed government. He has a concealed armoured vest worn beneath his immaculate formal suit.

**Name:** Mrs Emilly Marek
**Critter type:** Bulldog
**Str:** 8 **Stam:** 11
**M.Dex:** 12 **Co-ord:** 9
**Reas:** 12 **Int:** 14
**Drive:** 10 **Stab:** 10

**Disposition:** Cynical, Friendly
**Ties:** Raymond Marek (12)
**Antipathies:** Marguerite Hynx (5)
**Interests:** Socialising, Philosophy.
**Description:** At 40 years of age, Emily has aged gracefully (for a bulldog). Always the dignified hostess, Mrs Marek will keep straight faced through all but the most devastating social disasters. Her jewelry is worth some 10,000 credits.

**Name:** Marguerite Hynx
**Critter type:** Chinchilla cat
**Str:** 7 **Stam:** 10
**M.Dex:** 10 **Co-ord:** 12
**Reas:** 9 **Int:** 13
**Drive:** 14 **Stab:** 8

**Disposition:** Reckless, witty
**Ties:**
**Antipathies:** E.D.F. (10)
**Interests:** Fashion.
**Description:** A beautiful journalist for the evening news nets, Marguerite is constantly on the look out for news and scandal. She is of a fun loving disposition until confronted by reminders of the "oppressive" hand of the E.D.F., which she sees as a coercive force devoted to the curtailing of the individuality of Confed member worlds. She will wax eloquent on this subject whenever the opportunity arises.

**Name:** Silvia Selma
**Critter type:** Goat
**Str:** 9 **Stam:** 8
**M.Dex:** 12 **Co-ord:** 10
**Reas:** 8 **Int:** 11
**Drive:** 9 **Stab:** 6
Disposition: Conceited, Talkative
Ties: None (unless you count a level 15 tie with herself . . .)
Antipathies: Flana Baxta (8)
Interests: Socialising, Fashion.
Description: Council member Selmas' daughter. A loud (and to many people, obnoxious) character who constantly seeks to attract attention to herself. Silvia will rarely stop talking long enough to allow a conversation to develop, unless she is being flattered, in which case she will gladly stop and listen.

Name: Flana Baxta
Critter type: Afghan hound.
Str: 8 Stam: 9
M.Dex: 11 Co-ord: 11
Reas: 13 Int: 10
Drive: 11 Stab: 12

Disposition: conceited, Witty.
Ties: None
Antipathies: Amorous men (10)
Interests: History, Literature, Drama
Description: One of the local social parasites. A plain girl, Flana has airs and graces which some people find attractive and others find unbearable. Flana has an unfortunate habit of "leading on" her suitors. She will never become seduced in the context of this scenario.

Name: Albrecht Walden
Critter type: Bear
Str: 13 Stam: 9
M.Dex: 10 Co-ord: 7
Reas: 13 Int: 12
Drive: 8 Stab: 9

Disposition: Cynical, Talkative.
Ties: Flana Baxta (10)
Antipathies:
Interests: Art, Literature, Music.
Description: A department head at the university of Tlakatan, tall, red eyed Albrecht is a very depressed character tonight. This is acceptable because his depressed moods in no way reduce his desire to be sociable. He will drink quite heavily if a character drinks with him, and talk loudly and at length about anything to do with modern music.

Name: Janno Drekk
Critter type: Goat
Str: 8 Stam: 10
M.Dex: 11 Co-ord: 10
Reas: 12 Int: 6
Drive: 13 Stab: 12

Disposition: Talkative, Dull.
Ties: Silvia Selma (13)
Antipathies:
Interests: Music
Description: Janno is hopelessly (and stupidly) in love with Silvia Selma. He will hear nothing said against her, and will eventually start to bother Silvia if anyone monopolises her time. Most people who know Janno will suffer conversation with him, but will gladly leave the conversation to the player character if anyone should be foolish enough to offer them an easy escape by joining into the discussion. Janno is the president of the Tlakatan loyal society, a highly respected yet very boring separatist organisation which is devoted to "the protection of Tlakatanian interests". It is an active agitator for the Tlakatanii independence movement, and a verbose but non dangerous opponent of the ConFed.

Name: Helena Ozaf
Critter type: Horse
Str: 12 Stam: 12
M.Dex: 8 Co-ord:9
Reas: 13 Int: 10
Drive: 11 Stab: 7

Disposition: Conceited, Devious
Ties:
Antipathies:
Interests: Drama, Gossip.
Description: Helena is a bothersome character who will attempt to devastate the self image/ego of any female character who seems to be becoming popular. Having much in common with sharks and other voracious life-forms, she will circle her intended victim for a while, and then viciously attack her prey. Her means of attack is through "catty" comments. Have you ever seen two women verbally tear into each other while keeping perfectly straight faces? Try it some time. Here are some typical Helena comments:
"Lovely dress darling! But then you can get away with wearing that sort of thing. On me that would just look tacky . . ."
"How do you keep your hair that colour?"

Swapping acid comments with Helena requires the player to think up real insults to hit her with. If a particularly good "hit" is scored, Helena will stalk off, and the player character will earn the respect of 1 or 2 onlookers, and gain an increase in self image/ego.
Name: Tarquan Reyna
Critter type: Rat
Str: 6 Stam:10
M.Dex: 12 Co-ord: 13
Reas: 10 Int: 10
Drive: 9 Stab: 13

Disposition: Talkative, Comical
Ties:
Antipathies:
Interests: Sport, Art, Gambling.
Description: A wiry individual, most of who's life is spent making loud quips and comments. Tarquan is a talented gambler (skill level 11), who will agitate for a game of cards at the earliest opportunity during a conversation.

Tarquan is an agent for the Homeguard's security branch. If he becomes suspicious of the characters, he will keep them under careful observation. Tarquan has a pistol concealed in a shoulder holster. A very intuitive person who bumps into him might realise this fact (intu vs 15).

Name: Senator Talton
Critter type: Dog
Str: 12 Stam: 9
M.Dex: 8 Co-ord: 9
Reas: 10 Int: 12
Drive: 12 Stab: 6

Disposition: Straightforward, Talkative.
Ties:
Antipathies:
Interests: Food, Gambling, Travel.
Description: A member of Talton's "upper house", Senator Talton is loud, outspoken and overbearing. If a character somehow manages to attract notice to itself during one of Talton's monologues, he will either take an immediate dislike to it, or treat it like a long lost brother depending on his first impression. He will never trust a man who doesn't eat well, but he states this often enough so that a character will hear this long before the senator approaches.

Name: Colonel Hupo
Critter type: Wolf
Str: 13 Stam: 12
M.Dex: 10 Co-ord: 9
Reas: 12 Int: 9
Drive: 10 Stab: 12

Disposition: Cautious, Laconic
Ties: ConFed (10), Tiakatan homeguard (12)
Antipathies:
Interests: Military history, Politics
Description: A tall, dignified individual, Colonel Hupo is devoted to the armed services (particularly his own command, the Tiakatan homeguard). The fur on one of the colonel's hands is lighter than the other, a memento of an extensive bout of regeneration treatment which he suffered through two years ago. Hupo is extremely reserved to those he does not know well. He will look out for Vinnie Alfara and intervene if she seems to be being taken advantage of by a would-be seducer.

Name: Pilot cadet Vinnie Alfara
Critter type: Mouse
Str: 5 Stam: 9
M.Dex: 14 Co-ord: 13
Reas: 13 Int: 12
Drive: 10 Stab: 9

Disposition: Friendly, Kind.
Ties: Colonel Hupo (8)
Antipathies:
Interests: Games & Literature.
Description: Vinnie looks incredibly petite tonight in a formal uniform and cloak. She is a friendly, easy-going person who openly admires her commander, Colonel Hupo. Vinnie is a trainee aerodyne pilot at the ConFed center, and is perhaps too innocent and open to be taken for a soldier when out of uniform. She is an excellent dancer, and her accent betrays an upper class upbringing.

ROOM DESCRIPTIONS:

Atrium:
First impression: A tastefully decorated room adjoining the dance hall. A bustling crowd can be heard within the main room. 2 lackeys are here to take coats and hats and check invitations, although the evening is cool and a cloak would not be amiss on the dance floor.
Second glance: The two footmen are actually soldiers in full dress greens. They have managed to sneak a few delicacies off passing refreshment trays, and the empty plates are partially hidden on a sideboard. Both men are, of course, unarmed.

Terrace:
First impression: A shadowed veranda hung over with vines. The night is cool and clear, and the lawns are hidden in shadow.
Second glance: There are several couples scattered over the terrace. Some are talking, and some aren't. This is the best place to go to avoid attention.

Dance floor:
First impression: A wide room with a band playing its heart out at one end, and a large number of people
E.D.F SECRETARY'S RESIDENCE, TLAKATAN

GROUND FLOOR

KITCHENS
STORES

DINING ROOM

ATRIUM
TERRACE

DANCE FLOOR

Concrete Flower boxes

Front gate ↓

FIRST FLOOR.

DOWN

BATH ROOM

PRIURTE ROOM

PRIURTE ROOM

PRIVATE ROOM

DRAWING ROOM

STUDY (PRIURTE)

LIBRARY
dancing at the center of the room.
Second glance: This is a good room to meet people in. Most of the active party goers are in this area. Should you wish to avoid talking to someone, standing near the band should prove effective. There will always be 3D6 minor N.P.C’s present on the dance floor.

Drawing room:
First impression: A quiet room with a table, pool table, several chairs and a small bar. Several bookshelves are scattered about the room.
Second glance: This would be the perfect place for a game of poker, or for an intimate discussion between a small group of people. There are cards and dice sitting on the table, and poker chips on one bookshelf.

Library:
First impression: A dark, shadowed room crowded with bookshelves. Several settees and couches line the walls.
Second glance: In one corner an N.P.C is asleep. Should he awaken, he will hear any goings on which occur in the room. He will not be found unless the room is carefully checked.

Dining room:
First impression: A long, wide room dominated by a huge dining table. A well laid out smorgasbord is the focus of attention of 2D6 N.P.C’s. In the south west corner of the room is a refreshment bar, where a pair of cheerful bartenders dispense drinks to the crowd. (note: The taller of the two bartenders is the assasin who will strike later on in the evening. He has a pistol concealed under his jacket, and he is aware of the Secretary’s habit of wearing concealed body armour).
Second glance: A couple of people are getting down to some really serious business deals down by the bar. A political discussion is just hitting up in the N.W. corner of the room. where a well spoken gentleman in a loud shirt is holding forth on ethics and morality. The hard pragmatism of his views are causing quite a stir.

N.P.C: Harcourt Elys
Critter type: Terrier.
Str: 7 Stam: 9
M.Dex: 10 Co-ord: 12
Reas: 15 Int:10
Drive: 12 Stab: 11

Disposition: Straightforward, Witty.
Ties: None
Antipathies: ConFed government (10)
Interests: Current affairs, Socio-history, Philosophy

Description: A specialist on ethics, Harcourt is a past-master of the techniques of public debate. Any character who disagrees with Harcourt’s position will swiftly be shown up as an idiot, unless the character has a reparte skill. If the character argues well, he will earn Harcouth’s respect, and Harcourt will introduce him to Albrecht Walden and Marguerite Hynx later on in the evening.

Private rooms:
These rooms are all locked. Should anyone be unwise enough to unlock one, they will discover each of these rooms to be a well appointed bedroom containing the private effects of the hosts. About five minutes later the security team from the grounds will arrive to escort the interlopers off the premises.

Grounds:
First impression: Dark, shadowed grounds well filled with trees, vines and flower beds. It is a fine night (which means that it is going to rain all day tomorrow . . . )
Second glance: Two Homeguards (a fox and a dog) with thermal imaging goggles, assault caribines and flak armour patrol the grounds. They are likely to disturb any little tete-a-tetes organised in the garden.

AFTERMATH:
The scenario is not over with the assasination attempt. There is still a hostile crowd outside, some of whom are armed. If enough numbers gather, then they would rush the fence and its half dozen guards. There are many important persons at the party who should be protected from such an event - but alerting the authorities or escape might prove difficult with a fanatical assasin still at large . . .

Political background to scenario 2.
The critical events of the night have been orchestrated by a radical, militant separatist faction which has been incited into performing an act of overt terrorism. The secretary’s party, with its high concentration of influential local V.I.P.s was a golden opportunity.

The umpire must feel free to develop the plot from here to suit his own campaign. For instance, increased terrorism might increase local security measures, and this could serve the ends of several different factions. The government of Tlakatan will be loath to clamp down tough security measures, but discourages either separatist or centralist sentiments.
The rewards.
The following self image/ego bonuses will be accrued by characters at the end of this scenario (in addition to the self image changes which have occurred in the course of normal play).

Save secretary Marek, or apprehend his assassin: +2
Achieve a goal which was set for the evening: +1
Making a fool of yourself during the evening will cause a variable loss of self image depending on the character's DRIVE characteristic:
Drive 5 to 8: -1
Drive 9 to 13: -2
Drive 14 or 15: -3

There are few opportunities for a character to gain experience in its skills over a single evening, but feel free to award experience rolls in such skills as mingle or seduction if a character was at low levels in these skills (6-) but used them successfully.

Non Player Character Folio
The following list of pre-done characters is designed to provide the umpire with a set of characters suitable for fleshing out encounters. The characters' skills have been prepared with combat in mind, and all ability scores are at training level 10 (plus or minus a small random factor).

Character number: 01
Critter Type: Lion
Characteristics
Strength: 12
M. Dexterity: 9
Reason: 8
Drive: 12
Initiative dice: 1D6
Disposition: Antisocial
Skills
Coolness Under Fire: 12
Spot hidden Object: 10
Hide in cover: 8
Sneak: 8
Long-arms: 9
Handguns: 9
Throw Grenade: 9

Character number: 03
Critter Type: Rhino
Characteristics
Strength: 14
M. Dexterity: 8
Reason: 9
Drive: 7
Initiative dice: 1D6-1
Disposition: Cautious, Deceitful
Skills
Coolness Under Fire: 7
Spot hidden Object: 9
Hide in cover: 8
Sneak: 8
Long-arms: 11
Handguns: 11
Throw Grenade: 11

Character number: 04
Critter Type: Bird (Raven)
Characteristics
Strength: 6
M. Dexterity: 11
Reason: 12
Drive: 14
Initiative dice: 1D6
Disposition: Polite, Straightforward
Skills
Coolness Under Fire: 14
Spot hidden Object: 11
Hide in cover: 11
Sneak: 11
Long-arms: 10
Handguns: 10
Throw Grenade: 10
Character number: 05
Critter Type: Gopher
Characteristics
Strength: 9
M. Dexterity: 11
Reason: 11
Drive: 6
Initiative dice: 1D6
Disposition: Polite, Generous
Skills
Coolness Under Fire: 6
Spot hidden Object: 10
Hide in cover: 10
Sneak: 10
Long-arms: 11
Handguns: 11
Throw Grenade: 9

Character number: 06
Critter Type: Raccoon
Characteristics
Strength: 8
M. Dexterity: 7
Reason: 13
Drive: 11
Initiative dice: 1D6
Disposition: Conceited, Cynical
Skills
Coolness Under Fire: 11
Spot hidden Object: 11
Hide in cover: 11
Sneak: 13
Long-arms: 7
Handguns: 7
Throw Grenade: 11
Thoughts and Images, while new to game publishing, has been producing comic books since 1983. We have available for mail order both our own comics and ancillary merchandise, and those by our friends and associated artists that might be of interest to our customers. While we don't this moment have additional gamer materials, we do plan to add them to our merchandise shortly.

Paul Kidd and Steve Gallacci are developing at least two playing scenario books, as well as indepth background and technical detail books. Also in the works is a series of 25-mm gaming figures and, possibly, scale vehicles to go with them. A sculptor is also working on a large display figure of Erma Felna (13 cm/5 in), which could be available in a limited casting run.

On a more tentative level, for ultimate accessories, some other individuals have shown interest in producing full-size replicas of EDF and ILR arms (nonfunctional, of course!). There should be more information on all these items after January 1989; drop us a line to get the latest news.

Another more specialized item is a limited edition Erma Felna EDF poster, done as a movie one-sheet. It will be black on mirror mylar, 60 x 104 cm (27 x 41 in), and only 50 copies will be printed. Price per copy is $50.

For routine ordering of items, write or call:

Doug Durbrow
Thoughts and Images
P.O. Box 15168
Portland, OR 97215
(503)-235-7452

For more specific questions about Albedo the comic or Albedo the role-playing game (except for arguing about the rules -- Paul Kidd wrote 'em), write or call:

Steve Gallacci
P.O. Box 19419
Seattle, WA 98109
(206) 367-0159

Thanks, and have a good one.
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(tentatively scheduled for February '89)
INTRODUCTION

The ALBEDO Role Playing Game is based on ERMA FELNA, EDF, the feature story in the comic book "ALBEDO Anthromorphics." Erma's story is a dramatic "hard" science fiction tale, with the unusual twist of having characters that are "funny animals." The funny animal format gives the story a strikingly different visual effect, and is a major factor in the scenario's unusual background material. The anthropomorphic character races are effectively portrayed as races in their own right rather than simply being people dressed in furry animal suits.

The ALBEDO Role Playing Game aims to be very different from the run-of-the-mill science fiction adventure game. Since the ERMA FELNA story relies upon character interaction and socio-political plot and intrigue to provide its plotline, the game allows this type of action to be role-played. Although the game can be played as a "shoot-'em-up" the role playing game contains some easily useable rules for simulating character personalities, love, hate, loyalty and treachery. Thus clever adventure plots, political intrigue and interpersonal relations become readily playable, encouraging a very different type of playing style.

The game's background material is notable for its well thought-out technological base, and the unique society which it describes. The game includes details on languages and alphabet, social attitudes and day-to-day life, as well as outlining dozens of different races. One of the game's strongest points is the quality of its artwork, which is all done by the artist and writer of the ERMA FELNA, EDF story, Steve Gallacci. The abundant illustrations give the reader a clear view of the universe of ERMA FELNA, and includes technical artwork.

THE GAME SYSTEM

The game's core system uses a single chart to determine the results of all uses of skills and characteristics. A task difficulty system allows the success or failure of a character's efforts to vary according to the situation. The game system is therefore easy to learn, but has a wide range of potential applications.

The character generation system creates distinct differences between the various races. Character personality and psyche is created as a part of the basic character generation procedure, providing a quick and easy role playing guideline for each character.

The combat rules use a hit location system, but instead of simple points subtraction, describes wounds which effect character abilities. The combat turn is subdivided into phases. Characters have varying numbers of actions per turn depending on their individual abilities. There is therefore an even balance between the large, rugged character races and their fast, light counterparts.

This basic game set includes three rule books, background and character generation, equipment and technical background, and referee's manual, which makes the compleat basic game. The set also includes a sample setting and situation booklet for some introductory play. Future optional items such as additional play settings, expanded background and technical references, and playing figures and vehicles will become available to enhance play as desired.