Star *Quest

Near Stars Campaign Book
- and -
Basic Core Rules

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Credits

StarQuest is a collaborative work, which would not exist without the assistance of the Dragonsfoot forums at http://www.dragonsfoot.org. The text was assembled and edited, and some material provided by, Chris Gonnerman. The following individuals submitted material to this work:

KarasDjun (Thrim)
Alex Johnson (Paltax, Technology Levels)
Erik Wilson (Artwork)
Carl Q. (Caelestis)

Introduction

This document represents the "default" campaign universe for the StarQuest game system. Herein you will find a brief history of the Near Stars region, the most common and/or important alien races found there, rules for spacecraft and FTL travel, and other useful background material. None of the material in this document is restricted to the gamemaster only, though other supplements may be.

Many questions have already been asked about our version of the future; here are the most interesting questions, and their answers.

So is it a bright future? Sure. *A dark future?* Sure. Exploration and expansion on one side, an implacable foe on the other. Player characters could be crew aboard an Earth fleet ship, or owners of a cheaply built exploration or merchant starship, or any number of other things... perhaps even privateers.

Is it a future dominated by humans, aliens, or robots? Player characters are expected to be mostly human. The Noc'Zatar are acknowledged by most as leaders among those in the local area. Human-made robots are property rather than persons, but that doesn't necessarily apply to robots built by other species. The Polarans are presented as the major enemy, but they won't be the only race confronting the players.

How far in human future is it? Early to mid 22nd century (2139 to be exact)

Are you going to insert things into human history involving aliens to explain some of the elements of our past? The Ancient Galactic Civilization (AGC) had strict rules for interaction with primitive cultures (sort of a "Prime Directive" if you wil). Their base on our moon was hidden entirely underground on the far side, and their Martian base was hidden beneath the north polar region of Mars.

Our solar system has no resources of such compelling value that any aliens would risk the draconian punishment for getting caught exploiting them. After the fall of the AGC, the only things in our solar system worth anything to the aliens in the local region were supplies abandoned at the two AGC bases, and they were thoroughly looted. Any encounters with aliens on Earth from that period (around 4,000 BC) would have been mistaken for encounters with gods, spirits, monsters, etc. and the stories so mangled in the retelling that modern 22nd century researchers could argue forever about their significance and never reach a conclusion.

Sometime in the late 21st century, the remains of the two bases were found by human explorers. They were thoroughly studied, of course, but nothing of any real use to human interests was found. It was at that point, however, that we knew for sure we were not alone.

Are there any known psionic or supernatural powers? Psionics, "the Force," and other supernatural powers or effects are not part of this campaign. There will likely be house rules or even published supplements for mental powers, but due to the often controversial nature of such powers we are omitting them here.

Who rules Earth? One government, many governments, megacorporations? We are presenting a version of future Earth which is much like the current era, where governments vie with megacorporations for control behind the scenes.

What about "cyberpunk?" There will be some technological implants, but the whole idea of "cyberspace" as done in movies is nonsense. Cyborg warriors, if encountered, will likely not be human. There are plenty of cyberpunk games already; we see no reason to create another.

Part 1: The Near Stars Campaign

A Brief History of the Near Stars

Thousands of years ago, when the human race had not yet built its first pyramid, the Ancient Galactic Civilization fell. There was a great war somewhere in another arm of the galaxy. As the galactic fleet drained away from our spiral arm, anarchy ensued with warfare among races who were ancient enemies and widespread looting of abandoned fleet bases.

Through all this the human race was ignored, having nothing to contribute to either the looters or the warring races. Earth had been protected by the galactic fleet; though the fleet bases on Mars and the Moon were thoroughly looted, fortunately there was no fleet materiel actually on Earth itself.

Those who survived the period of anarchy fell into barbarism, in many cases losing the technology to travel in space. Eventually one species, the Noc' Zatar, relearned what they had lost and returned to space. Their devotion to ethics, coded into their very genes, drove them to take the place of the Ancient Galactic Civilization as peacekeepers among the nearby star systems.

Other races began to develop or rediscover star travel technology. While many of them chafed under the laws and restrictions imposed by the Noc' Zatar, in general peace was maintained.

On a planet orbiting a G-type star in the general direction of Polaris, the race humans call Polarans were making their first tentative steps into space. The Polarans have an inbred, unreasoning hatred of all animate life other than themselves, and had wiped out the last animal of their own world larger than an insect more than a thousand years ago. Though they are technically omnivores the Polarans prefer meat, and as a result of the lack of meat on their homeworld they had instituted cannibalism as their form of capital punishment.

Then they received the first signals from Earth. The signals of other, more advanced species were effectively undetectable to them, but Earthly radio and television signals were another matter entirely, and this drove the Polarans to concentrate all their efforts on space travel. Thus they quickly developed the wormhole drive technology, the only sane way to travel faster than light, and sent their first fleet to investigate the Earth.

The Noc' Zatar were watching them, of course, but their laws forbade them to interfere until the Polarans made their first wormhole jump. Unfortunately, the very first jump was made by a fleet of more than twenty small warships headed for Earth; it was almost too late to interfere.

In our solar system, the Noc' Zatar had no presence at all as humans had spread throughout the planets and asteroids. It was left for the various warships of the many nations of Earth to fight the Polarans, and the fighting was fierce. In the end, Earthly forces won, but at a great cost.

Humanity was close to the secret of the wormhole drive, and a captured Polaran warship gave up the last details to a hastily created UN science team. Fearing another attack, the UN was empowered by the major Earthly governments to build a fleet of starships to battle the Polarans.

It took the combined forces of Earth four months to build small scout starships, and another nine months to build a credible fleet of warships capable of star travel. Those first scouts, sent on what was believed to be suicide missions, found the Noc' Zatar in heated battle with Polaran warships. The Polarans had many warships, built when they made war on each other (for lack of anything else to kill), and they met the Noc' Zatar peacekeeping fleet in force. The Noc' Zatar for their part, realized it was a losing battle, but they remained because it was their law that they should.

By the time Earth-built warships arrived, the Noc' Zatar had lost more than seven in every ten of their capital ships. After some initial confusion, the Earth fleet admiral convinced the Noc' Zatar commander to pull out of the Polaran system.

Since then, there has been a state of open warfare between the Polarans and the Noc' Zatar-Human alliance. The alliance no longer attempts to enter Polaran space, but they react forcefully when Polaran starships appear in other regions.

Meanwhile, civilian ships -- explorers, merchants, prospectors, and colonists -- have spread out from Earth into the so-called "Near Stars" area, a region generally defined as being about 100 light-years radius around Sol.

Races

Caelestis

Star System/Home World: Unknown (see below).

Description: A race (literally) designed for space, the Caelestis (the singular and plural forms are identical) appear to be ovoid shells of nacreous material, with three eyes covered with smoky lenses at one end. They are quadrupedal; their powerful legs have two joints, which can be bent in several directions, and clever combination foot-hands with three digits and an opposing hook-finger, covered in fine fibers similar to the feet of gecko lizards. They are able to adhere to most starship hulls by means of this covering. The legs are covered in what appears to be greyish rhinoceros hide.

Ecology: the Caelestis are an artificially-created race, engineered by the AGC ago to build and repair spacecraft in hard vacuum. Their carapaces and shaped endoskeletons are tough enough to prevent explosive decompression. They live by absorbing and converting stellar radiation through their shells for sustenance (a form of photosynthesis). Caelestis can subsist entirely on stellar radiation, but must consume minerals and/or hydrocarbons (such as are found in comets) from time to time in order to grow. If taken away from space for more than a few weeks, they starve to death unless bombarded with hard radiation.

Caelestis reproduce by parthenogenesis; the entire race could be recreated eventually from a single parent, if the rest were destroyed. Knowledge is passed via cellular memory; every newborn knows what its parent knew, with the knowledge being awakened by being shown how to do something once. Newborns grow to full size in three years, begin breeding after five (one child every 18 months) until fifteen, and live for twenty-five years.

Society: Incapable of facial expression, the Caelestis communicate by an elegant and intricate sign-language, employing as many as three hands at once (one must always be used to maintain a grip on the ship's surface). Other species can learn a pidgin version of this language in a few months, which is enough to get a message across, or give instruction. The Caelestis aren't good at small talk. They are intelligent and peaceful, and content to do the work for which they were created.

Habitat: In their original habitat, Caelestis dwelt on the struts of space stations, on the surface of ships, or in special hollows with irising portals (when the ships were in motion). Where they are denied access to artificial spacecraft, they tend to live on small asteroids. All are intelligent, and possessed of incredible technical skill. They can literally build a spacecraft from scratch, given raw materials and adequate time, although without guidance they may build something entirely useless to their client race. They accept no payment for this service, other than accommodation. Caelestis have practically no curiosity -- except where spacecraft are concerned -- and a limitless boredom threshold.

Offworld: The original creators of the Caelestis were a long-dead member race of the AGC; little remains to show what they were like. The Caelestis were discovered by a Noc' Zatar survey ship over a century ago; a few were accidentally left behind when the AGC pulled out of a starship repair facility, and they multiplied and populated the star system.

The AGC put such facilities where the required raw materials were plentiful, and since they liked to build with metals and carbon monomolecules this means rocky star systems. Hotter main-sequence stars are favored by the Caelestis due to the "rich food supply." Once the Noc' Zatar found them, well, obviously if the AGC created them to build starships, then they should be allowed to build starships. Some were resettled in Noc' Zatar controlled star systems, including the asteroid field around 44 Iota Bootis BC (see the Noc' Zatar entry), and encouraged to create starships for the Noc' Zatar. Noc' Zatar law does not allow slavery, so they are not slaves, but the Noc' Zatar have "neglected to mention" the Caelestis to other races in the Near Stars region.

Of course, Humans are "renowned for their nasal capacity" (they are nosy) so by now Humans (and most other races) have heard of them, but so far none are working for any race other than the Noc' Zatar.

Human

Considering that all players of this game are expected to be humans, it would be a frivolous vanitiy to provide a full writeup of the human species. Humans have no ability score adjustments, nor do they have any special abilities.

Noc'Zatar

Star System/Home World: 44 Iota Bootis (i Boo) which is a "trinary" system (a binary pair in a binary orbit with a third star). The single star 44 Iota Bootis A is a G2V star similar to Sol; it orbits the "thermal contact" binary pair termed "BC" (B and C are "separated" by 0.008 AU, so they share the same photosphere). The average distance from A to BC is 48 AU, but the orbit is elliptical enough that, at the nearest pass, the BC binary slightly warms the climate the Noc' Zatar homeworld, which is Earthlike but with a higher proportion of land to water surface.

The 44 Iota Bootis system is 41.6 ly from Sol, 40 ly from the Polaran star system, and 84 ly from Iota Pavonis (the Paltax homeworld).

The BC binary pair is surrounded by a particularly chaotic asteroid field (see the entry for the Caelestis). 44 Iota Bootis A has four rocky planets (including the Noc' Zatar homeworld) and a stunted gas giant smaller than Uranus or Neptune by about 20% (by mass).

Appearance: Noc' Zatar are roughly humanlike in overall appearance. They have four solid black eyes, two positioned similar to humans and two lower and to the sides, granting excellent peripheral vision and limited vision behind. Their bodies are covered in coarse white, grey, or tan hair. They wear clothing to cover their lower bodies, but other clothing is usually not worn (except for spacesuits of course). Their hands are strangely constructed. Noc' Zatar usually go about barefoot, as their widely-splayed toes are uncomfortable when shod.

History: When the Noc' Zatar built their first wormhole ship and jumped to their star' s binary partners, the AGC were waiting. AGC research vessels were stationed in any star system where the indigenous sentients were close to discovering the wormhole drive, with first contact to be made right away upon the detection of such an event.

The Noc' Zatar joined the AGC fairly quickly, and soon became recognized as experts at information system design. As demand for such services increased, the Noc' Zatar geared their economy more and more toward training the needed technicians. For most of a thousand Noc' Zatar years, they were the most respected computer experts in the entire spiral arm.

Of course, this also meant that a great many Noc' Zatar moved away from their homeworld, becoming resident on distant worlds or traveling nomadically from job to job. When the impending collapse of the AGC became evident, many of those living offworld returned home; most who returned brought with them information storage devices of one sort or another filled with knowledge from the world where they last worked.

Upon their return they found the economy of their world in a shambles. Chaos reigned. Many realized the information they held would be misused or destroyed, and so hid what they could of it. While there were many small caches on the homeworld, most were found and looted before the dark age was past. However, a large quantity of knowledge was stored in their old moonbase, and the first lunar mission of the recovered Noc' Zatar civilization retrieved it.

By this time, the AGC was a distant memory. The Noc' Zatar built wormhole ships again, and wandered the Near Stars looking for other sentient star-travelers. They found none. So the Noc' Zatar resolved to uphold the standards and laws of the old AGC, protecting the "younger" races who were nearing the mastery of wormhole drive.

Paltax

Star System/Home World: Iota Pavonis (HIP 89042), Class G0V (1.75 times solar luminosity and 1.24 times solar radius. Iota Pavonis is 57.9 light years to the galactic south of Sol. Their homeworld, designated I Pav 2, is a rocky planet with oceans covering 92% of the surface; surface gravity is just a bit more than 0.8 G. The Paltax homeworld has a day-cycle 33 hours long and a year equal to 1.34 Earth years.

Description: The Paltax are an intelligent, technological invertebrate. They resemble jellyfish, but have a semi-transparent cartilaginous set of growths that protect their important organs like a flexible skeleton. This structure is partly endoskeleton, partly exoskeleton. The body of the Paltax is an ovoid about 1m on the depth and height axes and 0.67m on the width. Beneath the body are a forest of 24 flagella, roughly 1m in length and 0.5cm in diameter. The flagella serve three purposes; first, obviously, is locomotion. Second is hunting, as each tentacle can inject a paralytic compound using sharp cartilaginous tubes allowing the Paltax to make a food animal helpless and pull it towards its eating aperture on the creature' s bottom. Third is manipulation; the Paltax have good "manual" dexterity with their flagella.

These creatures have a visual organ, enclosed completely within their body near the front crest, that allows them sight in the yellow through blue wavelengths. They also have a sense similar to smell, which is most effective in water, with greater sensitivity and range than any Earth creature. They communicate optically by forming colored pulses and patterns within their body via chemical luminescence. The Paltax reproduce by a form of asexual live birth: every year of its mature life, a Paltax has a chance to produce one offspring. The typical life span is 30-35 of their years.

The Paltax are amphibious, able to survive out of water in very humid conditions such as are found in the coastal regions of their world. Their tools are tiny and Paltax are masters of detail. They may be the finest craftsmen in the galaxy. Currently they are well behind the human race in terms of interstellar technologies (weaponry, sensors, propulsion) but are considered slightly ahead of humanity in their "humanities" and soft sciences. Paltax make fine artists, craftsmen, linguists (they love studying other species' forms of communication and developing translations of alien literature), writers, and poets (some of the finest poetry of the last decade has come from Paltax poets, writing in the Noc' Zatar tongue). Not exactly pacifists, the Paltax understand individual violence but do not understand war and so far have not participated in the present conflict between the Polarans and the Human/Noc' Zatar alliance. Their vessels are few in number, small in size, and only armed with minimal defensive weaponry. They rely on the benevolent protective arm of the Noc' Zatar, though no race other than the Polarans has ever

had the desire to attack them. Paltax are sometimes given transport to other worlds by the Noc' Zatar, who value their culture and accept payment in form of sculpture, clockwork, and other creations. Paltax enjoy contact with new beings.

Their tentacles are thin but very strong and muscular. The last 3cm are a hard tip of cartilage-like material that allows the stinger to penetrate skin. Their land movement is slow due to their height, but they are good jumpers and efficient climbers. They need very high humidity and prefer to sleep in pools of water.

Paltax are very independent. They understand individuals and small groups doing just about anything, but they have trouble understanding large groups acting in concert. War, for example, is puzzling, but individuals and small groups can get in fights and that makes sense to them. They travel solo or in small groups and freely join and break company with others as their whims take them in different directions.

The Paltax got into space on their own, building several wormhole drive ships. Once they became interstellar citizens, the Noc' Zatar stepped in and established trade to their world; since then they haven't built any more ships of their own. If they need transport, there are plenty of non-Paltaxian ships...why waste the energy building more?

Polarans

Star System/Home World: Polarans don't actually come from Polaris, which is about 430 light years from Sol; rather, they come from a G8V star designated HIP 38784 in the "general direction" of Polaris. It was an Earth News Network reporter who coined the term "Polaran" in a highly inaccurate news report early in the conflict.

The Polaran homeworld is a bit smaller than Earth, but only about 50% water. It is tidally locked to its star, so that one side is very hot and the other very cold; life evolved in the twilight band between the two sides. The Polarans are very industrialized, having covered a great deal of the hot side with giant solar reactors and the cold side with automated factories. The twilight band is mostly city and farmland; the farmers are the lowest caste of Polarans and prefer to leave the farming to their robots. They subsist on a few staple crops, processed into simulated meat in their factories.

Description: Polarans are very roughly humanoid, with elongated, vaguely horselike muzzles with large mouths; their front teeth are fanglike, but their back teeth are molars, as they are omnivores. They walk hunched over somewhat; their bodies, arms, and legs are slender, and they have elongated "feet" with three clawed toes on which they walk. Polarans have hands with two fingers, two opposed thumbs, and a fifth heavily constructed finger which supports a curved blade slightly longer than the forearm. This blade folds back against the inner forearm when not in use, and can be snapped out in an instant; the other fingers and thumb grasp the back of the extended blade to stabilize it. Their two eyes are large and primarily frontal but they have extended peripheral vision. They have no obvious ears; a tympanum on each side of the muzzle (appearing as a flat-bottomed depression) is used for hearing. Polarans are almost all black in color, having shiny, tight skin; blue or green highlights may be evident in certain lighting. Polarans are seen in a broad variety of sizes as even their juveniles are expected to fight; height standing in their normal pose is between 1 and 2 meters with most warriors being 1.5 meters tall. Clothing is not worn; sexual organs are not evident. However, a belt and/or bandolier may be worn to carry weapons or equipment. Rank insignia are usually painted on the shoulder but such are marked in ultraviolet shades, appearing black to human eyes. They are unaffected by vacuum, and can hold their breath for more than ten minutes at rest; vigorous activity reduces this time by half. Note that the standard Polaran spacesuit prevents them from using their blades. They are also highly poison resistant.

Until the discovery of the signals from Earth, the Polarans considered their existence bleak and barren since they had little left to kill. They spent their time in violent games, duels, and meaningless wars over worthless asteroids in their solar system. The announcement of the Earth transmissions were greeted with mass celebration, followed by sudden unification of all feuding clans and nations as they focused every resource on discovering a way to get to Earth and kill humans (and eventually the animals as well).

They are an enemy unlike any that humanity has ever faced, for they do not want to conquer, only kill. They don' tcare who they kill; noncombatants are as good as soldiers, and dogs and cats will do if that' sall they have handy. They don' ttake prisoners, or perform torture, and they don' t engage in psychological warfare. They just kill.

Does their recent defeat bother them? No. They now know that there are at least two worlds "nearby" that have creatures on them they can kill. They think they are at the gates of Heaven, and they are ready to prove themselves worthy to enter.

Thrim

Star System/Home World: Thrim originate on the second planet from the star Chara (G0V, designated HIP 61317).

Description: Thrim are snake-like creatures with glistening, rubber-like skin and small arm-limbs located near the head. They have a sucker-tube for a mouth coated with sharp, chitinous rasping teeth. Thrim have a single eye located at the head end of the body. They are able to see equally well in bright or low light and can even see more into the blue-spectrum than most air-breathers. Although they have gill slits, these are residual and no longer used. Thrim have a series of 3 nostrils on their dorsal side, located behind the central eye, through which they breathe. They have 3 small, sucker-like fingers at the end of each arm and an opposable thumb. A locking musculature allows these "hands" to lock shut on a target, able to grasp with crushing force. The suckers on the fingers allow firm footing on nearly any surface. Thrim have amazing powers of regeneration, being able to completely heal most traumatic injury (except to their eyes), even regrowing lost parts if necessary. Since the eye is not replaceable or repairable by normal healing, blind Thrim are cared for by other members of the tribe, but usually die early. Life expectancy of a Thrim averages about 55 cycles.

Habitat: Thrim live in jungle environments and moist swamplands. They move through water with undulating movements resembling an eel. They have little skeletal structure in their lower bodies, instead relying on muscular contractions. They are semi-arboreal, using their arms and locking hands to fix themselves in trees while wrapping their bodies over tree limbs or coiling in rest positions. Thrim like warm, moist atmospheres. Their skin is kept moist by mucous secretions like slugs, making them susceptible to drying in saline environments. Thrim eat fruits and saps, using their razor-sharp mouthtubes to bore through tough bark or hard shells. They they suck out the pulp or sap like parasites. Occasionally they supplement their diets with proteins from local invertebrates, using their mouthtubes to suck out the soft insides.

Society: Thrim are low technology beings. They have a semi-tribal society, with leaders being larger and/or more intelligent. They have basic tool technology and sometimes dwell in tree dwellings built from simple tools. Thrim are very curious about technology higher than their own and they constantly look for new solutions to old problems. There is no marriage among the Thrim. Females lay egg clusters in nursing pools and available males will fertilize egg clusters of their choosing. In this way, the females must attract the male to fertilize her eggs. Females are typically larger than males and develop egg-sacs when breeding cycle comes once every 4-5 cycles of their dominant moon. Males are smaller but faster and more muscular. A male who selects an egg cluster will remain with the cluster until the eggs have hatched. Newborn Thrim are larval - they are bloated white grub-like things with no developed senses. Once hatched,

the female hunts and gathers food for the hatchlings while the male guards the nest. Once the hatchlings are 1 cycle old, the male and female will part ways, usually never to see each other again. The young grow fast and are independent after the first year. Thrim are unable to communicate audibly like other beings; instead, they communicate by means of radio frequencies. They are able to send and receive on a variety of frequencies in AM. FM was unknown to them prior to their first encounter with other species, but some have mastered the art. Of course, Tech Level 5 and higher communications are almost entirely encrypted; no Thrim has yet demonstrated an ability to intercept such communications. Thrim communicate in pictures, and can transfer memories to others of their kind very efficiently.

Offworld: Thrim can be found as stowaways on ships that visit their planet. They have no technology higher than basic tool-making but are curious to a fault. This has led Thrim to hide themselves on alien ships to learn how technology works. Once learned, Thrim retain these memories very well and can pass along this knowledge to others of their kind quickly. Thrim know how to use simple blaster weapons and low-tech machines from watching other aliens. They cannot, however, duplicate such machines unless they see others building them. In this way, Thrim have developed a sort of procedural memory that does not allow inventive genius, stagnating them at their current technology level. Most off-worlders don' t appreciate Thrim on board ships because they leave a trail of mucous wherever they travel and have a slight odor of rotting vegetation (a by-product of their digestive juices).

Due to their similar habitat preferences, Thrim are sometimes found in the company of Paltax.

Technology Levels

It is important to establish a technological reference scale upon which we can identify how much more advanced one civilization is than another. This sets certain ground rules for how to describe or compare those civilizations in the game. For example, we know the Noc' Zatar are more advanced than humanity. How much more advanced? What can their medical science do relative to our own? For that matter, what can future Earth accomplish that is out of reach of mankind today? And are the Noc' Zatar far from the AGC in propulsion technology?

This table is presented to help answer in broad strokes these questions and others like them. Keep in mind it does not detail all aspects of a society and that there can be exceptions. One civilization may be industrial age in general but have an abysmal track record for medicine. Conversely, another world might be visited by profiteering aliens which sell them advanced weapons, but otherwise be at an Iron Age technical level. These exceptions do not change the overall technology level, but notations will appear in the description of the world/culture as to any deviations from this scale. The table is presented below, and examples and descriptions of each tech level are provided following the table.

Tech Level	Description
0	Stone Age
1	Metal Ages (Bronze, Iron, Steel)
2	Industrial Age
3	Nuclear Age
4	Space Age
5	Early Interstellar Age
6	Interstellar Age
7	Early Galactic Age
8	Galactic Age
9	Intergalactic Age

Stone Age - The Stone Age is that period in which a sapient species dominates, but has not yet developed any of the tools by which civilization can be built. Stone Age cultures construct primitive huts at best using tools of bone, wood, and stone. They may utilize fire, but have no concept of science or medicine or even basic transport. Examples: Neanderthal and Cromagnon on Earth.

Metal Ages - The Metal Ages are all quite similar on the grand scale; they are the first steps toward modern civilization. Use of metal tools is common and construction of simple land and water craft as well as stone dwellings is widespread. Medicine is more superstition than science and typically causes more harm than good, but shows the first inklings of empirical thought. Weapons include metal arms and armor and mechanical ranged weapons such the crossbow. Examples: the Roman Empire, or the British Empire at the time of the Magna Carta on Earth.

Industrial Age - The Industrial Age is the time during which science beings to blossom and large scale use of the planet' s natural resources begins. Machined tools are made and can be used for fine work. Metal and concrete are used in the construction of structures. Motorized craft travel land and sea, and primitive flying machines are used. Medicine is a true science and advances have allowed for the creation of effective treatments for some ailments. Weapons include chemically powered projectiles and explosives. Examples: United States around 1875, or World War I Europe.

Nuclear Age - The Nuclear Age is highlighted by the harnessing of the atom (or, more commonly, by the unleashing of the atom). Civilizations at this level construct skyscrapers, have

achieved supersonic flight, and utilize nontrivial alloys. Medicine has contributed to the curing of disease on a world-wide scale. Surgery allows for the limited replacement of simple organs with artificial or transplant parts. Weapons research has begun on the first non-lethal weapons, and traditional weapons have reached a pinnacle of lethality with self-guided munitions, armor piercing projectiles, chemical weaponry, and atomic fission and/or fusion.   Example: United States in 2005 on Earth.

Space Age - Space Age civilizations are sometimes referred to as Information Age. The focus of this technology level is global information exchange.   Construction employs composite materials. Nanoscale structures and materials are being developed and used. Manned orbital space platforms and transport outside the atmosphere are becoming common. Medicine has mapped out the complete genome of the dominant species and genetic manipulation is an option for treatment of disease.   Nonlethal weapons are first viable at this technology level. Knowledge required for biological and fusion weaponry are widespread among governments. Terraforming of nearly habitable planets becomes possible. Example: Earth 2075.

Early Interstellar Age - The knowledge of other worlds has reached the bulk of the population. Transport between stars is possible, but the bulk of traffic is between planets and satellites in the home system.   Creation of free-standing structures in space over a kilometer across is done. Medicine has eradicated a number of diseases and allows the replacement of faulty organs with artificial or cloned substitutes for practically every organ.   Techniques are generally discovered at this tech level to enable life suspension (or "death suspension") and later revival of members of the dominant species. Magnetically accelerated projectiles as well as sonic and laser weaponry are viable on a limited scale. Energy shielding is used for vessels to offset both travel stresses and offensive energies. Terraforming of less than ideal worlds becomes possible. Examples: Earth 2200, Polarans, Paltax (though not so advanced in weaponry or propulsion).

Interstellar Age - The Interstellar Age is best demonstrated by the culture having a support network between a number of colonies in different star systems. Usually at least a dozen worlds participating in a closely knit civilization through a shared government spans more than 100 light years. Construction of a free-standing habitat the size of a small moon is within the capabilities of such a technology. Medicine allows the reconstruction of any damaged tissues or organs that would require artificial or cloned replacements at lower tech levels.   Heavy energy weapons are possible, and equally capable energy shielding are employed by such a technology.   Terraforming becomes possible for almost any planet where gravitational field is not an issue. Example: Noc' Zatar.

Early Galactic Age - This technology level is not currently known in the galaxy, but would be represented by more than a hundred worlds spanning several thousand light years. Creation of a free-standing habitat the size of a small planet is possible. Medicine will have eradicated disease entirely.   Weapons will be an order of magnitude more powerful than those of an Interstellar Age civilization. No examples are known.

Galactic Age - This culture spans the majority of the galaxy.   It is capable of creating supermaterials enabling construction of "ringworlds." The medical science of such a technology would allow the revivification of dead life-forms within a limited period. Weaponry is two orders of magnitude more powerful than that of an Interstellar Age civilization. Example: The AGC.

Intergalactic Age - This is the pinnacle of technological advance. Such a tech level would only be explainable as magic to a mere Interstellar Age society. Transportation is possible between galaxies and interstellar travel is near instantaneous. Supermaterials are used in the creation of the ultimate undertaking, the construction of rigid Dyson Spheres. Weaponry of this level are entirely superior to Interstellar Age technology and can destroy planets and stars wholesale. Defense technology at this level would be impervious to weapons of all lower levels. There are no known examples of this level of technology; it is purely hypothetical.

Faster than Light (FTL) Travel

The wormhole drive technology, sometimes called the "jump drive," consists of a graviton accelerator running the full length of the starship. Charging the accelerator takes time and energy; most smaller starships must disable nonessential systems while charging. The charging process fills the entire accelerator tube with "graviton plasma;" when the charge is complete, the pulse emitter array at the tail end of the accelerator is activated, emitting a wave effect that compresses the graviton plasma toward the front end. At the moment of maximum compression the accelerator opens and the compressed graviton plasma is allowed to exit. It then forms a small, basically invisible wormhole into which the ship is drawn.

Each wormhole created has two "apertures," the "near end" and the "far end." Successful wormhole traversal depends on two things: the near end collapses after the ship enters it, propelling the ship to the far end, and the far end opens correctly and remains open until the ship exits it.

If the near end closes prematurely, when the ship has begun to enter it but before the entry is complete, one of two things might happen: the ship might be ejected backward (called a *rejection*), or the ship might be broken in two (called a *bisection*).

Rejection is a fairly minor event; the time and energy of charging is wasted, but the ship usually suffers minor or no damage. Bisection, a rarer occurrence, is a bit more serious. The front section of the ship completes the traversal, but generally arrives at the far end without the drive and reactor section. Emergency power and life support is required by law to be able to function for at least a day. The aft section is left behind, with power and thrust but usually no navigation. Emergency communication gear is required to be provided in the engine room.

Of course, any creatures and/or equipment located at the point of bisection are usually destroyed.

The rarest wormhole travel malfunction is also the most feared: a *far end failure*. In this event, after the starship has entered the wormhole and the near end has closed, the far end fails to open. The ship is never seen again. Scientists argue about where such a ship goes and whether or not it is destroyed, but the fact is nobody knows. Far end failures are believed to occur when the far end "hits" a solid (or semi-solid) object, such as a planet.

Assuming all goes well, the far end of the wormhole opens generally in the facing direction of the starship; therefore normal space maneuvering is used to direct the wormhole. The amount of charge applied to the accelerator determines the distance the wormhole extends (called its *interval*).

The far end is attracted to gravity wells, tending to form at about the same gravitational "level" as the near end; so if a starship in the orbit of Earth opens a wormhole to a star very similar to Sol, the far end is likely to be about the same distance from the star as Earth is from Sol (i.e. one A.U.). For this reason, travel to the vicinity of a neutron star or black hole is more dangerous since the gravitational gradient (rate of change of gravity in proportion to distance from the object) is steeper; the arriving starship might not have time to maneuver in such close proximity to a dangerous object. Conversely, jumping into the area of a brown dwarf star runs a similar risk; though the gravitational gradient is less steep, the region of gravitational equivalence is close to the object... perhaps even within it!

Also note that the far end tends to appear *somewhere* in the area of gravitational equivalence. Exactly where cannot be planned in advance; the appearance is effectively random. Ships following the same exact course close together (such as a wing of starfighters) will tend to

appear close together, barring any navigational malfunction. However, the motion of celestial objects makes a given course useless after only an hour or so; a starfighter left behind after the rest of the wing has left has little time to make the journey using the shared navigational fix.

Navigational errors are a more common occurrence, particularly when there are several gravity well targets within similar range. Generally, if an error causes a wormhole to miss its target, any other gravity well in a specific area could become the new target. Many theories have been advanced as to why one random target is chosen rather than another, but the fact is that nobody understands it. It might as well be random. There are certain parameters, however. First, the far end will not open farther away than the target star, so long as it is only a navigational error (but if the drive becomes overcharged due to a malfunction, this becomes possible).   Second, the new target will be within one-third of the wormhole' sinterval of the intended target. This produces the following pattern:
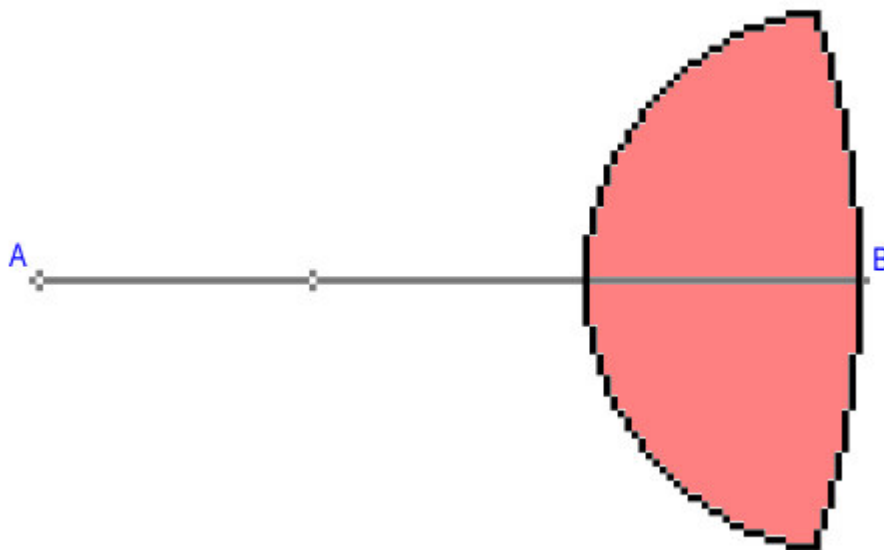
Far End Mistargetting Diagram

Point A is the near end, and point B is the intended target. The pink area represents the region in which the new target will be found.

When one starship is being pursued by another, and makes a jump, the pursuer may attempt to follow. Since the pursued ship almost certainly did not share navigational data with the pursuer, the pursuer' snavigator must examine sensor logs and his own star charts to determine how to follow the fleeing ship. Pirates who are being pursued often jump "blind" toward a cluster of similar stellar objects in the hope that their pursuers will not be able to reliably follow them.

Jumping to a point in open space is generally difficult, since there will be no point of gravitational equivalence. The interval of the wormhole must be small enough that there are no star systems or other substantial objects in the pink area of the diagram above. This may take several short jumps to accomplish.

Jumping inside a star system is also subject to random mistargeting; in this case, with distances so short, the far end will tend to be drawn toward planets or moons. Jumps within a star system

have a much higher chance of suffering any of the normal wormhole malfunctions; in particular, the odds of a far end failure are around one in a hundred jumps inside a star system, whereas the odds are closer to one in four hundred when jumping to another star system.

A starship traverses about one AU of realspace per second in a wormhole. Since there are about 63,235 AU per light year, this means each light year traversed would take about 17 hours, 34 minutes; for game purposes, this is rounded up to 18 hours. Figuring travel time in days is just a matter of taking the number of light-years traveled and multiplying by 0.75. Of course, this also makes wormhole jumps very quick inside a star system... which has tempted more than a few starship captains to their doom.

Starships tend to be long and slim, both to contain the drive accelerator and to make slipping into the wormhole efficient. Civilian ships usually carry their fusion drive at the tail, but warships tend to have nacelle mounted engines that fold in for jumps. The maximum wormhole interval is proportional to the length of the accelerator, while the aperture diameter is proportional to the accelerator's diameter.

Assuming the navigation system (computer, chronometer and sensor array) is fully functional, if the navigator gets an x3 roll on his Navigation skill he's on target, and within one or two AU of where he wants to be. An x2 roll is on target, in the "quadrant" of the star system he wants to be in. An x1 roll is on target, at a random location in the star system. On a failure, the GM selects a target star in the "pink area" at random, but the transit is still basically safe (unless the target location has substantial dangers of its own). On a natural 20 (possible critical failure), it's at least a failure as described, but a second die is rolled:

d20 Roll	Result
1-13	Normal Failure
14-17	Rejection
18-19	Bisection
20	Far End Failure

Communication

Virtually all 22nd Century wireless communication is digital, not analog. One frequency, which could only carry one conversation in the analog format, can carry dozens or hundreds of conversations in digital form. Standard phones are preprogrammed to work with a specific carrier or set of cooperating carriers; most have a mode allowing them to work on a starship or space station. These devices can handle conference calling, call forwarding, and call waiting in the conventional sense. Phones generally include video plus audio as well as pure audio modes of operation.

All standard communication devices have an Emergency mode in which they can broadcast a message for receipt by all common carriers in range. The Emergency broadcast, if received by a common carrier, is automatically routed to the local Emergency Service. Shipboard and hobbyist communication gear will also receive such messages. Also, recording functions are usually included in any communication device.

Starship crews often carry or wear small communication devices designed to communicate through the ship's main communications system. Such devices have very limited functionality by themselves but can perform all the functions of the more advanced devices when they are able to connect to their host computer. However, most such devices do not include video functionality.

The range of such personal communication devices varies, from 20 miles for the simplest device to 500 miles for the most powerful models. Of course, when connected to a common carrier, a personal communication device can connect to any other such device that common carrier reaches or can interconnect to.

Many common carriers bill for basic services. If the user of a personal communication device attempts to use such a carrier with whom he or she has no contract, the user must provide credit information (bank access code, credit account code, etc.) to permit the carrier to bill the user.

Note that the communication network of a spaceship will appear as a common carrier to a standard comm device. The computer aboard a ship will act as the "operator" and handle all calls to or through the ship's communication system. Naturally, only authorized users may place calls through a ship's comm system.

Of course, besides personal communication devices, there are larger communication systems designed for ships and space stations. These devices have a much longer range, and they can usually use "tight-beam" transmission to reduce or eliminate interception of the signal (which will almost always be encrypted anyway).

The other communication problem that can never be forgotten is the speed of light. In most cases where a common-carrier communication link will have more than a 15 second delay (two-way), the common carrier will make the connection as a "voice-mail" type, storing the sender's message and delivering it to the receiver as soon as possible. In the event that the receiver is not available to receive the message, it will be stored until the receiver can be contacted. Note also that most phones with recording ability will record incoming messages automatically if set to do so.

Interstellar communication is accomplished entirely in the store-and-forward mode. Message pods containing significant storage capacity are launched via wormhole more or less regularly from orbiting stations to other star systems. Such pods, upon arrival, immediately attempt to connect to one or more common carrier systems and transmit all stored messages. Naturally, the pods arrive in more or less random locations within the target systems; they are equipped with small ion drives to allow them to automatically move to the nearest communication station. Starships will generally be equipped with a number of message pods; they are launched by means of an ejector installed adjacent to the bow end of the wormhole drive. A wormhole is opened, but instead of the ship entering it, the pod is ejected into the near end.

Obviously, any of the things that can go wrong with normal starship travel can happen to message pods as well. For this reason, most interstellar communications systems use a "return receipt" system to verify whether or not messages have arrived, and resend them if they have not. This can delay message receipt for extended periods of time. Starship communications generally can't depend on return receipts, however, making them somewhat more chancy.

Part 2: Basic Core Rules

Character Generation

Ability Scores: Each character must be given scores in the following abilities:

> Strength
> Endurance
> Dexterity
> Reason
> Will
> Insight

Initial statistics may be generated either by random roll or point-buy; the GameMaster will decide which of these systems players may use.

Random Roll System: The player rolls 2d6+4 six times, and arranges the scores as desired. Note that for all player character races other than Human, there will be ability score modifiers to apply; in no case may a player assign a score that would be reduced to zero or less by the chosen race's modifiers.

Point-Buy System: To be written...

Hit Points: All player character races have Hit Points equal to the Endurance score.

Initial Skills: Several Skills are automatically known (see the Skills section for details). The player rolls a number of d6's (generally 8, but the GameMaster may choose to allow more at his or her option). See the Skills section for more information regarding initial skill allocation.

Other Statistics: After computing and recording the values above, the player should read the game rules information for the chosen character race and record all additional abilities on the character sheet.

Action Resolution System

Many game activities will require an Ability or Skill check. Roll 1d20; if the result is less than or equal to the target score or rank, the roll is a Success. If the result is less than or equal to one-half the target figure, rounded down, the roll is a Special success. If the result is less than or equal to one-sixth the target figure, rounded down, the roll is a Critical success.

To avoid any question of the exact figures needed for each possible result, the table below is provided:

Success (x1)	1	2	3	4	5	6	7	8	9	10
Special (x2)	--	1	1	2	2	3	3	4	4	5
Critical (x3)	--	--	--	--	--	1	1	1	1	1

Success (x1)	11	12	13	14	15	16	17	18	19	20
Special (x2)	5	6	6	7	7	8	8	9	9	10
Critical (x3)	1	2	2	2	2	2	2	3	3	3

Success (x1)	21	22	23	24	25	26	27	28	29	30
Special (x2)	10	11	11	12	12	13	13	14	14	15
Critical (x3)	3	3	3	4	4	4	4	4	4	5

Note that Critical results are only available from rank 6 up, while Special results are only impossible for rank 1. Also note that, regardless of what the target figure is, a natural 20 is always a failure.

A **Success** is usually all that is needed (for instance, to repair a handgun with proper tools); particularly hard actions (i.e. decode an alien message) may require a **Special** or **Critical** result. The numbers (x1, x2, and x3) shown next to the result titles are used as multipliers for damage rolls in combat, and are called *factors*.

Combat

Time

One combat round is about 6 seconds; thus there are 10 rounds in a minute.

Surprise

Whenever it is possible that characters are surprised, each character who might be surprised must make a Surprise roll to avoid it. Two basic situations exist.

First, two or more characters suddenly see each other. For example, a character might open a door, only to come face-to-face with an enemy. In this case, characters on both sides must roll Dexterity rolls or be unable to act for one round.

Second, one group of characters may be laying in ambush for another group. In this case, if the ambushers are concealed the victims must roll to notice them or be surprised as above. (See the appropriate concealment skills to determine the roll needed). If the ambushers are simply waiting in a room unconcealed, so that it is similar to the face-to-face example above, the victims need to make Dexterity rolls. The ambushers do not need to roll if they are prepared for the victims.

Attacks against a surprised opponent are at +5.

Initiative

Each round, every character who may act rolls 1d6 and adds his or her Dexterity to the result (except if a natural 1 is rolled). Characters act in descending order of Initiative number. Action is simultaneous on the same Initiative number, so two characters can possibly shoot each other.

Each round the GameMaster will count off Initiative numbers, from the highest down. Players are responsible for calling out their actions when their "number is up." A player with a high number may wait until a lower number. If a character holds his or her Initiative from round to round, on each subsequent round until the action is taken the character is treated as having 10 plus his or her Dexterity as an action number.

Combat Actions Possible

The following standard actions are allowed:

> Attack
> Dodge
> Move normal movement rate (Walk)
> Move three times normal movement rate (Run)

The following combination actions are allowed:

> Walk and Attack
> Walk and Dodge
> Run and Dodge
> Dodge and Attack*

Dodge and Attack may only be used when the character has lost the Initiative, or has held his or her action until after the opponent has attacked. Dodges are made on the attacker's Initiative number, regardless of what the defender rolled. In particular, it is NOT possible to dodge after making an attack.

In special circumstances, exceptions to the above may be made.

Weapon Charts

Melee Weapons

Weapon	Damage	Min. STR	Adv. STR
Fist	1d4 *		
Blackjack, Club	1d6 *		
Knife, Dagger, Hand Axe	1d4		
Mace, Hammer, Metal Bar	1d6		
Sword, Spear, Axe	1d8		
Whip	1d8 *		
Chain	1d6		

* stun damage

Ranged Weapons

Weapon	Weight	Range	ROF	Ammo	Damage
Bow		50m	1	*	1d6
Crossbow		75m	1/2	*	1d6
Rock, Thrown		Str x 1m	1	*	1d4 *
Hand Axe		Str x 1m	1	*	1d4
Spear		Str x 2m	1	*	1d6
Handgun		75m	1	13	1d8
Rifle		100m	1	10	1d10
Shotgun		75m	1	7	2d4
Submachinegun		50m	5	30	1d8
Plasma Pistol		100m	1	100	1d10
Plasma Rifle		150m	1	100	1d12
Plasma Assault Weapon (PAW)		100m	7	300	2d8
Stun Pistol		75m	1	50	2d6 *
Stun Grenade		Str x 1m	1	*	3d6 *

* stun damage

Automatic Weapons

When firing a fully automatic weapon, the character is are either (1) spraying an area, or (2) targeting one opponent. Remember that the bullets fired are almost certainly going into the target area somewhere.

For case #1, a single normal attack is rolled for each target in the area, but no more than the number of bullets fired (i.e. the weapon's Rate of Fire). So, an automatic weapon with a Rate of Fire of 10 can hit up to 10 targets per round. The area of effect is defined by the shooter, and is an open-ended cone spanning between two lines; generally, no more than a 90 degree span may be covered per round. Usually the two lines are aimed at the leftmost and rightmost targets; those targets, and any other targets in the angle between them, may be hit. The shooter must roll a hit for each potential target, from left to right or right to left (his choice) but otherwise must roll to hit the nearest targets first. The shooter rolls hits until either (a) all possible

attacks have hit or (b) all possible targets are exhausted. No target is rolled for more than twice. These are normal attacks, so damage is multiplied by the usual x1, x2, or x3.

For case #2 (one target), roll a single attack and consult the following table:

Attack Roll Result	Damage Multiplier	Collateral Damage?
Failure	N/A	Yes, full ROF
Success	x1	Yes, 2/3 ROF
Special	x3	Yes, 1/3 ROF
Critical	x5	No

The Collateral Damage column indicates whether or not unintended targets standing generally behind the intended target may be hit. Rolls are made for these unintended targets just as if they were targets from case #1, above.

Damage, Death and Dying

There are two kinds of damage: Stunning and Killing. Killing damage, naturally, can result in the character's death. Stunning damage tends to knock characters unconscious. Weapon listings on the Weapons table indicate which type of damage is done.

When an attack does Killing damage to a character, the number is deducted from the character's current Hit Points. If, after taking Killing damage, a creature or character has zero or fewer Hit Points, then that creature becomes unconscious and is **dying**. A dying creature loses one Hit Point at the end of each subsequent round, until it is tended to or until its Hit Point total reaches -10 or less, at which point it is normally considered dead. Modern medical technology may allow the character to survive even this; see below.

The unconsciousness will last 2d6 rounds (assuming the victim does not die first). Note that it is possible for a dying creature to regain consciousness; in this case, the creature will usually be completely **incapacitated**, unable to move, fight, or perform any other significant action. The victim may cry weakly for help, pray, scrawl a last message in blood, or perform any other minor action. Such a creature or character might be allowed to crawl as much as 3 or 4 meters.

If the victim is tended (wounds bound, etc.) before this point arrives, the Hit Point loss is stopped, and the victim is referred to as **stable**. The victim can move about at no more than ¼ normal movement; all other penalties given above for being incapacitated apply here. These limitations persist until the victim has at least one Hit Point.

Stun Points are totaled separately. If the Stun total ever equals or exceeds the victim's current Hit Points, that character must roll an Endurance check, interpreted as follows:

Result Level	Effect
Failure	Unconscious 2d6 rounds
Success	Unconscious 1d6 rounds
Special	Remains Awake

Remains Awake result does NOT change the character's Stun total; it only allows the character to remain conscious. Each time such a character takes more Stunning or Killing damage, he or she must roll vs. Stun again.

A conscious character who has Stun Points equal to or greater than Current Hit Points is Punchy. Punchy characters suffer a reduction of 1 result level on any roll (Critical becomes Special, Special becomes Success, and Success becomes Failure).

Normal Healing

Characters recover 1 current Hit Point of damage every day, provided that normal sleep is possible, and that the character engaged in no strenuous activity the day before (moving at more than a walking rate, any combat, etc.). Stun points are deducted at a rate of ¼ Endurance (round down) per hour.

High Technology and Healing

Modern medical technology allows for the revival of characters who would have been dead in earlier times. Any character who has reached -10 Hit Points is *almost* dead. Continue to count off Hit Point losses, one point per round, until -20 is reached or medical aid is applied.

To revive a character with -10 or less Hit Points, a medical technician or doctor must use a properly stocked Tech Level 5 or higher medical kit. This may include administration of blood or blood substitute as well as medications. The technician or doctor must make a Medical skill roll; an x1 or x2 result allows the victim to attempt an x1 Endurance roll to recover, becoming stable. If the Medical roll is an x3 result, the victim is automatically stabilized without needing an Endurance roll.

A character who has reached -20 or less Hit Points really is dead. Even this is not necessarily permanent; application of Tech Level 6 or higher medical technology may allow the character to be revived. For this to work, the victim must be treated with Nanostabilizer; treatment must be applied within one minute per point of Endurance after the character' sdeath. Second, the victim must be taken to a Tech Level 6 medical facility where his or her body can be repaired in a Life Tank.

Rest

Normal human characters require 6 hours sleep out of every 24. Characters who do not get the required minimum sleep make all rolls at -5 after 16 hours of wakefulness. Regardless of how long the character has gone without sleep, the normal amount of sleep will remove these penalties.

Note that these figures are minimums; given a choice, most characters would prefer to sleep two or more hours longer. Nonhuman characters have their own specific rules for rest.

Effects of Poison

Where a lethal poison is indicated, the victim must make an Endurance check or suffer 1d6 damage per round for 10 rounds, starting the round following the exposure to the poison. The GM may create poisons which vary from these figures.

Characters reduced to zero or fewer Hit Points by poison are not subject to the usual loss of Hit Points rule for dying characters; when the poison "runs its course," the victim, if still alive, is considered stable.

Deafness and Blindness

A deafened creature can react only to what it can see or feel, and suffers a -3 penalty to surprise rolls. A blinded creature suffers a -5 penalty to surprise rolls and attack/defense rolls, and

a -2 penalty to its Initiative rolls. Note that certain races may have alternative sensory abilities that alter or negate these penalties.

Falling Damage

Characters who suffer falls take 1d4 points of damage per increment of distance fallen, where the increment is 2 meters in 1G gravity. Divide the increment by the G force level to find the increment for a given planet or other environment. Or, figure the number of dice using 2 meter increments and then multiply the result by the G force level.

The distribution of this damage is based on an Endurance roll, as follows:

Endurance Roll	Damage Distribution
Failure	100% Kill, 0% Stun
Success	50% Kill, 50% Stun
Special	25% Kill, 75% Stun
Critical	0% Kill, 100% Stun

In environments having 0.3 G or less gravity, normal characters take no damage from falling.

Skills

There are two major types of skills: *standard* and *professional*. Standard skills may be raised by experience, study, or research; Professional skills may only be raised by study or research.

Some skills are *free*; each character automatically receives all free skills at the same rank as the *associated ability score*. After all, most people could pick up a handgun and shoot it without training, and it would only take a few moments to familiarize someone with the safety, reloading procedure, etc. Actually hitting is another story, though. Note that the list of free skills may vary from one race to another.

See the Character Generation rules, above, for details on figuring out the character's beginning skills. Note that, when generating a character, each die added to a Standard skill adds 1d6 points to the skill, while each die added to a Professional skill adds a single point.

All skills have an associated ability score. This score is used to determine the initial score, as noted, and also limits the advancement of the skill; no character may have a skill ranked higher than three times the associated ability score.

Experience

Each time a Standard skill is used in a stressful situation (any situation where there are unpleasant consequences for failure) and a success is rolled, the player makes a check beside the skill (if it has not already been checked). At the end of the adventure or session (at the GM's option), the player selects a number of skills which have been checked and rolls to attempt to improve them. The player may pick a number of skills equal to or less than half of the character's Intelligence (rounded down) to attempt improvement.

Each attempt is made by rolling a d20 (if the skill score is less than the associated ability score) or two d20s (is the skill score is equal to or higher than the associated ability score). If the roll or rolls are higher than the current skill score, the skill is improved by one point. If the skill score is 20 or higher, the player must roll two d20s and get two 20 results to improve the skill.

Skills with scores higher than 20 still fail on a 20 roll, as noted before, but the x2 and x3 target numbers continue to improve.

Weapon Skills

All weapon skills are classified *Standard, Free, Dexterity*. Below is an alphabetical list of all the standard weapon skills:

> Automatic Energy Weapon
> Automatic Firearm
> Axe
> Axe, Thrown
> Bow
> Crossbow
> Energy Pistol
> Energy Rifle
> Handgun
> Knife
> Knife, Thrown
> Rifle
> Sword
> Thrown Weapon

Skill Descriptions

<u>Animal Riding</u> *(Standard, Dexterity)*: The character can ride one specific type of animal (horse, camel, elephant, etc.) The type of animal must be specified when the skill is taken; to learn to ride more than one type, the skill must be taken once for each type.

<u>Astrogation</u> *(Standard, Intelligence)*: The character may attempt to determine the location of his or her vessel using star sighting. Normally, the astrogator uses navigational sensors and the navigation computer aboard the ship to determine this information; success is normally automatic. If there is any problem with the navigational equipment, or electromagnetic or optical interference exists, the GM may require an x1, x2, or x3 roll (as he or she sees fit). Using this skill to actually direct a starship is covered in the starship rules.

<u>Block</u> *(Standard, Dexterity)*: The Block skill permits the character to attempt to block (stop) any hand-to-hand attack. After the attack is rolled, the character blocking must roll vs. this Skill. If the result factor is lower that the attacker' s result value, the attack has normal effects. If the attacker' s and defender' s result values are equal, the attacker' s result is reduced one factor. If the defender' s result value is better than the attacker' s, the attack is fully blocked (and causes no damage). This maneuver may be combined with a hand-to-hand attack, but both the Block and the Attack will be at -1 factor on the roll.

<u>Catch</u> *(Standard, Dexterity, Free)*: This skill permits the character to try to catch missiles shot or thrown at him or her. The result needed varies depending on the type of missile: Thrown objects require x1, while arrows, crossbow bolts and bullets (if allowed) require x3. Bullets are impossible for humans, but some aliens might have fast enough reflexes. If the rolled result value exactly equals the necessary result value, and the object caught is an edged, spiked, or otherwise dangerous object to hold, the catcher takes normal (x1) damage. If the rolled result exceeds the necessary result, the object is caught without harming the catcher (unless it is impossible to hold the item without being injured). Thus, it is not possible to catch an arrow or bullet without being injured.

Climbing *(Standard, Dexterity, Free)*: The character can climb trees, walls, etc. This skill also includes rappeling. The GameMaster will determine the difficulty level of any climb. Generally, failure indicates the character has fallen at the halfway point of the climb. The GameMaster may break long climbs up into several smaller ones of 50 meters or less each.

Computer Science *(Standard, Intelligence)*: This skill is used when programming, reprogramming, or debugging computer software.

Conceal *(Standard, Intelligence, Free)*: This skill permits a character to hide himself or herself, another willing character, or an object. The player rolls a quality level for this skill. To detect the hidden character or item, a Intelligence roll of <u>higher</u> result level is needed (but x3 will always find the item).

Cryptology *(Standard, Intelligence)*: A cryptologist can crack codes. Individual code methods have various levels of difficulty to crack; the GameMaster will determine this. Cracking a coded message takes at least one hour, and sometimes much more than that.

Defeat Security *(Standard, Intelligence)*: This skill permits the character to overcome security devices. Special tools will usually be required. The GM may require the character to make some other skill roll also, such as Computer Science or Engineering.

Design Engineer *(Professional, Intelligence)*: A design engineer can design devices, vehicles, and/or facilities. The plans created by the engineer may be used by one or more technicians to construct the item.   An engineer cannot design items above his Tech Level without the assistance of an appropriate scientist or access to technical documents for the target Tech Level.

Disguise *(Standard, Charm)*: This skill permits the character to attempt to disguise himself or herself. The GameMaster will determine the exact difficulty of the roll. In general, an x1 roll will permit the character to conceal his or her identity. x2 allows an apparent gender and/or race (not species) change. An x3 result is required to duplicate another person' s appearance, or to appear to be an alien species. Some changes are simply impossible; the GM will rule on such cases.

Dodge *(Standard, Dexterity, Free)*: This skill is rolled to perform the Dodge maneuver.

Drive Antigravity Vehicle *(Standard, Dexterity)*: This skill permits the user to drive most common vehicles which travel above the ground by antigravity.

Drive Land Vehicle *(Standard, Dexterity)*: This skill permits the user to drive most common vehicles which run in contact with the ground (i.e. wheeled or tracked vehicles).

Explosives *(Standard, Intelligence)*: The character knows how to identify, handle, and use common explosive materials and devices. Preparing an explosive device takes an hour (on the average). One roll must be made at the x1 result level or better when preparing the device, or an accident occurs.   When the device is detonated, another roll is made to check the effectiveness of the device. The effectiveness is multiplied by the result level, just as if an attack was being made.

Etiquette *(Standard, Charm)*: The character knows how to behave in social situations. The result level of this roll (which usually needs to be made only once) indicates how the character is perceived by others. Failure on the roll indicates a major mistake.

Fast Talk/Oratory *(Standard, Charm)*: This skill is used to convince other characters (NPC' s) that the speaker is reasonable and/or correct. The difficulty of this roll will be determined by the GameMaster. In general, an x1 roll will convince an NPC to do something he or she might do anyway, such as purchasing a reasonably priced product or service the speaker is selling. An x2

roll will convince the NPC to purchase the item whether it is expensive or not, and an x3 roll will convince the NPC of something totally against his or her beliefs. This effect may not last long, however, so the Fast Talker should be prepared. Using this skill on an alien usually requires a penalty of -1 factor.

First Aid *(Standard, Intelligence)*: This skill allows the character to treat wounds (from attack or accident). Once per character per battle, 1 to 3 points of Current Hit Points may be restored. The First Aid roll is made, and 1 point is restored for an x1 result, 2 for x2, or 3 for x3. Five minutes are required for First Aid use on a single character or creature.

Forgery *(Standard, Intelligence)*: Given a sample to study, the character may forge documents. When the document is forged, the forger rolls a quality level. To detect a forgery, the character inspecting the forged document must make an Intelligence roll of <u>higher</u> than the quality level of the document.

Kick *(Standard, Dexterity)*: This skill is used to attack by kicking. Kicks may be combined with Walk or Run movement, at the end of the move only. They may not follow defensive moves such as Dodge or Block (in the same round).

Language *(Standard, Intelligence)*: Language skills are special. Each character begins the game knowing his or her native language at a rank equal to his or her Intelligence score. Additional languages are learned the same as any other skill. As a special feature, each week a character lives in a foreign culture, he or she automatically receives an experience check against that language skill. Reading and writing is normally included with each language skill, but the GM may rule in special cases.

Law *(Professional, Intelligence)*: The character has detailed knowledge of the laws of his or her native country or world, or of international/interplanetary law. Like languages, Law must be taken once for each country it is to apply to (international and interplanetary law being treated as separate countries). To be an effective trial lawyer, other skills (such as Fast Talk/Oratory) may be needed as well.

Maintenance Engineer *(Standard, Intelligence)*: The character knows how to repair most devices of his Tech Level. Given the tools and parts, any repair can be accomplished. Time to repair a device will be determined by the GameMaster. On an x2 result, the mechanic reduces the time to ½; x3 reduces time to ¼. A failure consumes 0-50% of the parts required for the actual repair, and takes as much time as an x1 success; the repair may be attempted again if enough parts remain.

Medical *(Professional, Intelligence)*: The character is a doctor. He or she can apply First Aid (as given above). If a character with First Aid becomes a doctor, the First Aid skill is removed when the Medical skill rank equals or exceeds it. A doctor can also diagnose and treat diseases and poisoning, given the correct medicines.

Pick Pockets *(Standard, Dexterity)*: The character can lift items from other character' pockets, purses, etc. To pick a pocket, the character makes a Skill roll. On a failure no item was taken; on an x1 result or better, an item was extracted. The victim rolls an Intelligence roll, and if it is a <u>higher</u> result level the attempt is noticed.

Pilot *(Standard, Dexterity)*: This skill permits the character to operate a standard aircraft or spacecraft.

Sailing *(Standard, Intelligence)*: Allows the character to sail and/or command any type of (waterborne) ship or sailboat. Large ships may require a crew, but crew members do not have to have Sailing skill so long as the captain does. Unskilled crew members may slow the ship, however.

<u>Scientist</u> *(Professional, Intelligence)*: The character has scientific knowledge of one field of science. The player must choose the scientific field when the skill is selected. Scientist skill may be purchased for more than one field of science. Applicable fields include (but are not limited to) Physics, Biology, Electronics, Psychology, Astronomy, Anthropology, Archaeology, and Chemistry.

Given the reference books and laboratory equipment (as required for the field), the character may conduct research, including inventing new devices or technologies. An Engineer or other technician may be required to assist in the creation of new devices. (The Scientist can, of course, take these other skills himself).

<u>Skiing</u> *(Standard, Dexterity)*: The character knows how to ski, both downhill and cross-country.

<u>Skydiving</u> *(Standard, Intelligence)*: The character knows how to pack and use parachutes. A skydiver can assist non-skydivers in making parachute jumps. A non-skydiver who makes a jump must roll a Dexterity check of x1 or better upon landing, or suffer 1d10 Stun points.

<u>Sleight of Hand</u> *(Standard, Dexterity)*: This skill allows the character to palm items, fooling the eye in various ways. The chance of success is figured much like the Pick Pockets skill.

<u>Stealth</u> *(Standard, Dexterity, Free)*: When hiding or attempting to move silently, a character must make a Stealth roll. Other characters attempting to detect the hiding character must make an Intelligence roll of <u>higher</u> result level than the Stealth result to succeed.

<u>Surveying</u> *(Standard, Intelligence)*: This skill is used when the character wishes to locate a specific geographic location. A map, transit, and directions are required. This skill is also used when laying out building sites.

<u>Survival</u> *(Standard, Intelligence)*: The character knows how to live off the land, surviving with minimal supplies in hostile terrain. Survival rolls must be made daily; failure indicates the character has failed to find food and/or water for that day. An x2 result gives two days food and water; an x3 result gives two days food and at least a weeks' water.

<u>Swimming</u> *(Standard, Dexterity)*: The character knows how to swim. Skill rolls are required to swim in difficult situations, and Endurance rolls may also be required for long periods swimming. Note: This skill may be free for some alien races.

<u>Throw</u> *(Standard, Strength)*: The character may attempt to Throw another character. Being Thrown results in the victim taking damage equal to the attacker' Strength in Stun points, and the victim is prone. The victim may take no further action that round, and automatically loses the initiative the next round **if** he or she chooses to get up. The attacker must have adequate Strength to perform the Throw, but does not necessarily have to be able to lift the victim. The Throw maneuver may not be combined with any movement, but may follow a Dodge or Block maneuver **if** the Dodge or Block is fully successful (the thrower is not damaged at all). This **must** be declared as a compound action!

<u>Tightrope Walking</u> *(Standard, Dexterity)*: The character can walk tightropes. This skill works similar to Climbing, in that long distances may be broken up into shorter walks of 10 meters or less. Difficulty is x1 for wooden beams, x2 for thick ropes, and x3 for wires or thin lines.