

STARS WITHOUT NUMBER

A Science Fiction Role-Playing Game



Written By
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STARS WITHOUT NUMBER

CORE EDITION

[S.]INE [N.]OMINE
PUBLISHING

For Eden, who gave me a reason.

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ISBN 978-1-936673-19-3

Written by Kevin Crawford.

Cover art by Jimmy Zhang.

Interior art provided by NASA, ESA, and F. Paresce (INAF-IASF, Bologna, Italy), R. O'Connell (University of Virginia, Charlottesville), The Hubble Heritage Team (STScI), and the Wide Field Camera 3 Science Oversight Committee.

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The year is 3200. Humanity is scattered like dust among the stars. The broken relics of a former day litter the sky and men and women struggle to rebuild the glory of humanity's lost golden age.

For almost a thousand years humanity had expanded from its ancient cradle to fill the sky with its worlds. At first the expansion came by way of the enigmatic "spike drives" that granted humans the ability to skip between stars. Countless nations, faiths, and ideologies sent colonists to the darkness above to find new homes where they could live free from the oppressive rule of Terra's calcified masters.

The spike drive touched on different worlds. It folded the tissue of space and time and pierced it to emerge at distant stars, but the space between touched in turn those who traveled it. Over the course of generations, this subtle influence shaped certain descendants of the starfarers. The condition that resulted was known as "Metadimensional Extroversion Syndrome". Most simply knew its victims as "MESses". Later, they were known as psychics.

MES inevitably killed or maddened its carriers when they began to use their powers. The surge of extradimensional energy either cooked their brains or burnt a pathway through their sanity. It was only through decades of research and the expenditure of countless lives that techniques were developed for harnessing this power safely.

The channeling of psionic energy began the second great expansion of humankind. Even though hardly more than one in ten thousand humans were touched by MES, it was still enough to reshape human civilization. Vast choirs of psychics were employed to develop new technology, advanced manufacturing capabilities, and huge jump gates that could teleport whole freighters across interstellar distances. Spike drives were relegated to the frontier, to the distant star systems that could not yet afford to train the psychics or buy the components necessary to build their own jump gates.

This reliance planted the seed of the golden age's destruction. In 2665, a metadimensional pulse of unimaginable violence erupted

from the Veil Nebula, washing over the whole of known space in seconds. Every psychic in human space was instantly killed or maddened by the surge, burnt out in what later became known as the Scream.

With the jump gates inoperable and all the psychic mentors insane or dead, the core worlds were suddenly cut off from the frontier. A few spike drive ships remaining in the core were able to make their way out, bringing tales of horror, starvation, and frantic warfare over shipyards and orbital factories. Most of the core worlds are thought to have perished, cut off from the worlds that supplied their enormous populations and fueled their vital technologies.

The centuries that followed were known as the Silence, as unnumbered human worlds fought to survive their sudden isolation. Some slid into barbarism or worse, their planets unable to support a starfaring civilization. Some worlds lacked metals, or fossil fuels, or any one of countless other vital ingredients for maintaining their industry. And all, of course, lacked the psionic mentors necessary to train a new generation of psychics.

Over the past six hundred years, humanity has slowly, painfully begun to heal the wounds of the Scream. Not all worlds were incapable of independent survival, and these hardy planets have become the linchpins of stellar nations and miniature empires. Trade routes have revived with time and the building of new spike drives. Expeditions are regularly mounted to the tomb worlds of the outer core to scavenge what can be reclaimed from the bones of the dead past.

Yet a pall hangs over these efforts. Great sacrifice has revived some of the old secrets of psychic training, but no world dares rely on psionic forces any longer. The nature of the Scream is still a mystery. For now, humanity strives to build a world that does not rely upon powers it cannot fully understand or completely control.

Human space is a vast canvas of mystery to most. Ancient nav charts are long out of date. Alien races have since moved into many formerly human-held sectors, and there remain ruins of races that long predate mankind. Warlords and petty tyrants scheme to expand their stellar domains, and brave souls struggle to recover lost secrets.

Stars without number await you.

Welcome to the Void

In *Stars Without Number* you play the role of an interstellar adventurer. Whether a grizzled astrotech, lostworlder warrior, or gifted psychic, you dare the currents of space for the sake of riches and glory.

Not everyone in the thirty-third century is cut out for such a life. The vast majority of humanity is content to live out their lives on their own worlds, making the best they can of what fate has given them. The dangers of the starfaring life claim legions of aspiring adventurers and precious few of them ever manage to die in bed. Still, humanity needs their courage, ingenuity, and reckless ambition if mankind is ever to recover its former glory.

New to Role Playing Games?

If you're unfamiliar with role playing games, this book may not make a lot of sense. It's not a conventional science fiction story and it seems to have a lot of rules and tables in it. In reality, you're probably more familiar with it than you might imagine.

A role playing game, or "RPG", is simply a game intended to allow you to take the role of a character in a fictional universe. You use your abilities and your natural wits to deal with the challenges of that world, working to attain your own goals and accomplish those ends that seem most fun and rewarding for you.

RPGs like this one date back to the 1970s, and were the fundamental inspiration behind today's enormously popular massively multiplayer online role playing games. Millions of people play RPGs on a daily basis, though usually in the form of a computer-moderated online game. A "pen-and-paper RPG" like this one cuts out the server and puts a human in its place. This human is the game master, or GM. He or she designs the situations the adventurers might find themselves in and judges the actions they take to deal with these circumstances.

If you've ever been playing an MMORPG and wished you could do more in the world than hit your cooldown buttons and work on your boss strats, pen and paper RPGs might appeal. Your characters are limited only by their natural abilities and your imagination, and you can interact with the environment and other characters in ways that no computer could ever handle.

An Old-School Grogard?

If you've been playing RPGs long enough, you'll readily recognize much of this book. It draws a great deal of its inspiration from a slightly streamlined take on several 1970s-era RPGs. Which ones will be clear to most old-school readers, and this game would not be possible without the admirable example those games provided.

This game is compatible with several early-edition RPGs, even those intended for use in fantasy settings. Characters and game material can be easily ported back and forth from these games. The largest deviation is in the skill system provided in this game, though the Systems section of the book covers ways to reduce or eliminate the role of skills. A *Stars Without Number* character can usually be dropped into most old-school content without more than a cosmetic tweak of their saving throw category names.

In addition to the usual elements expected of a retro-inspired game, *Stars Without Number* also includes mechanics for developing player-controlled factions and domains and creating sandbox-friendly worlds for PCs to discover. A grognard interested in seeing where this particular game differs from other offerings currently available should skim through the GM's Guide chapter to get an overview of sector creation, and then look in particular at World Generation and the Adventure chapters. The Resources section might prove useful for other games and settings, as much of the content there is system-neutral.

Gaming Terminology

#d#	Dice. "3d6" means, "roll a six-sided die three times and add it together". Also seen as "2d12+2", meaning "roll the twelve-sided die twice, total it, and then add two to the total".
GM	Game Master; the person responsible for running the game and responding to player choices.
NPC	Non-Player Character; a character played by the GM, whether an antagonist or otherwise.
PC	Player Character; a character played by one of the game's players. The PCs are the protagonists of the game.

CHAPTER ONE

CHARACTER CREATION

Before you can begin playing *Stars Without Number*, you need to roll up a character. While the game can theoretically work with just a single player and a GM, things work best with 2-5 friends in addition to the GM. A lone adventurer can get in a lot of trouble out there, and a small group can find it hard to include all the different skills and talents that are often required to survive a sticky situation.

With that in mind, you and the others in your gaming group should give a little thought to making characters that work well together. Grim loners make good book protagonists, but they don't survive well when there's no author around to bail them out.

When making a character, some players like to simply throw the dice and see where they lead. Others prefer to know a little more about the game world and like to have more detail provided beforehand about the worlds and themes of the game. For those who'd prefer a more detailed discussion of the world of *Stars Without Number*, you can skip ahead to chapter five and read up on it there. For the rest of you...

What Players Need To Know

Your character is an adventurer in the year 3200, a dweller among the scattered worlds of a once-great human diaspora. For whatever reason, he or she has decided to leave their old life behind and take up a starfaring existence, traveling from world to world in search of glory and riches.

Many worlds have recovered from the darkness of the centuries-long Silence, and can now manufacture spacecraft and other items of advanced technology. Other worlds are "lost worlds", cut off from interstellar trade and forced to make do with the resources of their own planet alone. Lostworlders are often counted primitive or barbaric by more technologically advanced worlds.

Tramp freighters, small merchant ships, and scout craft serve most worlds, even the most backward. If your character comes from a primitive or isolated culture, it's probable that he or she hitched a ride aboard such a ship to travel to a more cosmopolitan life. It might even have been a voluntary choice.

In actual play, your character should be motivated to *act*, and to act as part of a group. The game does not deal well with hostile loners, apathetic brooders, or other characters that have to be coaxed into engaging with the world and cooperating with the rest of the group. The world of *Stars Without Number* is dangerous, and a character that cringes from peril or insists on facing it alone will find only boredom or an early grave.

Every character should have a goal from the very start. This might be something as simple as "become wealthy beyond my fondest dreams of avarice" or "be known as the greatest pilot in the sector". It might be as elaborate as "engineer the downfall of the interstellar empire that conquered my world". Whatever it is, it should give your character an immediate reason to go out and *do* something.

This will to act is especially crucial in *Stars Without Number*, because this game is designed to support a "sandbox" style of gaming. Unlike many other games that encourage the development of a particular story or the playing out of a specific plot line, *Stars Without Number* presents an entire interstellar sector to your characters and invites you to choose for yourself how to experience it. Stories will arise based on what your characters do and how they respond to the adventure situations provided by the GM.

As a player, you need to cooperate with your GM. This doesn't necessarily mean following every lead and hook you're given without demurral, but it does mean that you need to respond to the situations and possibilities that are given to you.

You also need to keep in mind that your adventurers exist in a very large world that is not scaled to your characters' abilities. If you insist on throwing your characters into situations or challenges that seem overwhelming, the odds are that they *will* overwhelm you. Scouting, reconnaissance, and careful intelligence gathering will help you recognize no-win situations before you push ahead into them. By the same token, don't hesitate to flee if your party appears to be facing certain doom. A keen sense of when to decamp the field is often an experienced adventurer's most valuable asset.

What Game Masters Need To Know

As the GM, you have the lion's share of preparatory work. Making a sandbox game setting is a great deal of labor, but the end result is a setting that can accommodate a vast number of adventures and diversions. Sandbox gaming rewards those players and GMs who enjoy a steady supply of variety in their gaming and the sense of a world that actually moves and changes in response to their actions.

As a GM, you need to read the rules here in chapter one in order to understand how characters are created. You should glance over the psionics and equipment chapters to get a general idea of the psychic powers that exist in this world and the kind of hardware the PCs might conceivably be carrying or facing. You need to pay particular attention to the systems chapter, however, because you'll be using the rules given therein on a regular basis. Still, it's less than a dozen pages, and the rules on starship combat and navigation can probably be skipped as irrelevant to the first few sessions.

Once you've gotten a general idea of the game's mechanics, you should read the setting history chapter and the GM guide. The guide will lay out a process for creating an interstellar sector and populating it with interesting worlds, factions, aliens, and adventures. While it may seem like a great deal of work, *Stars Without Number* is designed to support and simplify the task, and the work you do in each stage helps create the content you need for the next.

In play, you need to be able to respond to potentially unpredictable party choices. You need to be ready to make spot decisions about outcomes and NPC actions, and you need to be ready to remember these details when the players later come back to build on what they've already accomplished. The Sector File sheets in the back of the book are useful for tracking this information.

You also need to be able and willing to put aside plot lines and NPCs that particularly interest you when the party decides to turn their attention to some other corner of the sector. It can be tempting to let events force a party to remain on a world or in a plot line that you find especially enjoyable to GM, but that kind of coercion isn't a proper part of a sandbox game. It's likely the characters will be back sooner or later, and in the meanwhile your NPCs will doubtless be making their own plans and advancing their own schemes.

This isn't to say that your role as GM is simply to be the joyless facilitator of the party's entertainment. Both players and GMs need to cooperate to make a sandbox game work, and there's nothing wrong with participants finding some adventures and worlds more fun than others. But as the GM, you have the entire sector to play in. If there are particular themes or elements you want to involve in your game, you can make sure they appear. Players haven't got that kind of control. All they can do is control their own characters' actions, so you should be especially careful not to compromise that liberty.

Now that the responsibilities of both the players and the GM have been described, let's move on to creating your first characters.



Character Creation Summary

Roll your character's six attributes.

Roll 3d6 six times, and assign the totals in order to Strength, Intelligence, Wisdom, Dexterity, Constitution, and Charisma. Record the attribute modifier for each ability. Note that "roll 3d6" means "roll a six-sided die three times, and add it together". You may move points between scores, lowering abilities above 13 and raising abilities below 8 to even out your scores. No such modifications can lower a high score below 13 or raise a low one above 8.

Choose a class.

Warriors are survivors proficient in fighting and combat of all varieties. Psychics are gifted with unique mental powers. Experts have expertise in a wide range of useful skills. You may replace one Prime Requisite attribute of your chosen class with a score of 14 if you so wish. Note down your class' special ability.

Pick a background package.

Select an option to reflect your character's early training and origins and record the skills the package grants on your character sheet. Some packages have skills labeled "Tech/Any" or "Profession/Any"; this means you can select any one specialty from that skill type, such as "Tech/Postech" or "Profession/Sailor". Skills labeled "Culture/World" mean that the character has Culture skill specialized in their homeworld, whatever it may be. Background skills start at level 0.

Pick a training package from your class.

Each class offers eight different training packages to reflect common skills and education for a certain type of character. Choose one appropriate to your character concept and record the granted skills on your character sheet. For skills labeled "Any", any skill specialization may be chosen, but you may not double up on a skill already existing in the package. For example, a package granting "Combat/Any" and "Combat/Projectile" means you cannot choose "Combat/Projectile" twice. Training package skills start at level 0. If you already have a given skill from your background package, the skill starts at level 1 instead.

Choose a homeworld.

Either pick one from a list provided by the GM or else make up the details of your own.

Roll hit points for your character.

Psychics roll 1d4, Experts roll 1d6, and Warriors roll 1d8. Add your Constitution modifier to the roll to determine your maximum hit points. Even with a Constitution penalty, maximum HP cannot be less than 1.

Choose languages.

Your character speaks English, your world's native tongue if that differs, and one more language per point of Intelligence modifier bonus.

Buy starting equipment.

Spend 400 plus $1d6 * 100$ credits on equipment of Tech Level 4 or lower. Any money unspent can be retained for later purchases.

If your character belongs to the Psychic class, choose your psychic disciplines.

A psychic's primary discipline begins at level 1, and they have 1 more point to spend on a different discipline. Your character's initial psi power points are equal to 1 plus their highest attribute modifier between Wisdom and Charisma.

Rolling Your Attributes

The first step in creating a character is to determine the character's six attributes. Attributes describe the character's aptitude in certain aspects- how strong, quick, clever, perceptive, hardy, or charming they might be. Attributes in a human range are measured by scores ranging from 3 to 18.

To generate a character's attributes, 3d6 are rolled six times and the results are assigned to the attributes in the order listed on the table below. Average humans have attributes in the 8 to 13 range; as such, you may choose to remove points from any attribute above 13 to raise any attribute up to 8. For example, if you've rolled a Dexterity score of 15 and an Intelligence score of 7, you might choose to take one point from Dexterity and raise your Intelligence score up to 8. No attribute so altered can be lowered below 13 or raised above 8. Attributes need not be evened out this way if you prefer to play the attributes as rolled.

Note that the GM may choose to have you use a different method to generate your character's attributes, such as allowing you to choose where to put each roll, to roll four dice and drop the lowest for each attribute, or to buy your attributes out of a fixed pool of points. If in doubt, you should check with the GM.

Once you have determined your scores, you should write down the attribute modifier for each. The attribute modifier is a bonus or penalty that is applied to rolls related to that attribute. At

Attribute Modifiers	
Attribute Score	Modifier
18	+2
14-17	+1
8-13	No Modifier
4-7	-1
3	-2

many points in this book, you'll be instructed to add a particular attribute's modifier to a roll; you should take care to add just the modifier to the roll, and not the entire attribute score. In the case of a particularly lackluster attribute score, the modifier might even be negative, in which case you should subtract it from the roll as a penalty. If your attributes change during the course of play, make sure to adjust your modifiers as needed.

Some characters don't look to be terribly promising material for interstellar adventure. At the GM's discretion, a character whose total final attribute modifiers sum to less than zero can be discarded and their attributes rerolled.

Not all GMs prefer to allow this option, however. High attribute scores are nice, but they are by no means mandatory to make an interesting or playable character. Even the sorriest specimen of galactic maladaptation can overcome their unfortunate beginnings to have a long and successful career.

The Six Attributes	
Strength	Physical might and ability to carry heavy loads. Characters with high Strength are fearsome in hand-to-hand combat, smashing through enemy defenses with brute force, while those with low Strength might be puny, unathletic, or small-framed.
Intelligence	Memory, logic, and the capacity to think quickly. Characters with high Intelligence are well-suited to coping with complex technical skills and mentally demanding professions. Those with low Intelligence might take a while to reach a conclusion, or forget important details.
Wisdom	Perception, strength of will, and judgment. A high Wisdom shows that the character is keenly aware of his or her surroundings, has a strong willpower, and a healthy fund of common sense. A low Wisdom suggests that the character is prone to bad choices or indulgent behavior.
Dexterity	Hand-eye coordination, agility, and reaction speed. High Dexterity is the sign of a nimble, quick-handed character with a lot of natural aptitude for gunplay. Low Dexterity implies that the character might be lumbering, fumble-fingered, or two steps behind everyone else when surprised.
Constitution	Hardihood, stamina, and the ability to withstand pain, sickness, and injury. High Constitution indicates a character that can take a lot of abuse before keeling over, whether or not they have an impressive musculature. Low Constitution might mean a persistent sickliness, a sedentary lifestyle, or just a low pain threshold.
Charisma	Charm, persuasiveness, and capacity for leadership. Not every high-Charisma character is handsome or beautiful, but all of them have a way of making others take them seriously. Whether through natural charm or an imposing presence, people tend to believe and trust them. Characters with low Charisma have a hard time getting others to respect them. Even genuine skills and talents tend to be discounted.



Choosing a Character Class

Once attributes are rolled, you should pick a class. A class represents your character's general set of aptitudes, those talents and training that make him exceptionally suited for the hazards of interstellar adventure. You may choose one of three classes: Expert, Psychic, or Warrior.

Every class has two attributes which are *prime requisites*. These are attributes which are very important to functioning in the class. For Experts, these are Intelligence or Charisma. For Psychics, they are Wisdom or Constitution, and for Warriors they are Strength or Dexterity.

At your discretion, you may replace one of your prime requisites with a score of 14 to reflect the natural aptitude that led you to your career. If both of your prime attributes are 14 or higher, you need not replace either. Make sure to adjust the attribute modifier for the score you replace.

Each class also has a special ability. For warriors, it is the ability to evade any one hit during a given fight, while experts can re-attempt a failed skill use once per hour and psychics have the ability to gain psionic powers.

Not every person in the galaxy is a member of one of these three classes. Most men and women are simply normal human beings, perhaps with a level or two of skill in their particular profession and a knack for their daily duties. They may be talented at their particular craft but they lack the specific focus and drive that distinguishes a player character. Still, you shouldn't be surprised if an exceptionally dangerous enemy or frustrating rival demonstrates class abilities.

THE THREE CLASSES

Expert	Experts are the men and women who know how to get things done. Repair techs, scientists, con men, starship pilots, master thieves, medics, and all other concepts that revolve around a great deal of talent in a professional skill are best represented by an Expert. They may not pick up on combat skills as quickly as a Warrior, but they have an uncanny knack for pulling off near-impossible feats of expertise in their chosen fields. <i>Experts have a knack for success, and can re-roll a failed skill check once per hour.</i>
Psychic	In the far future, the powers of the human mind have been unlocked through painstaking study and sacrifice. Psychics are capable of remarkable feats of mental prowess, from reading minds to levitating objects to influencing the flow of future events. Learning and maintaining these abilities takes a lot of time, however, and psychics have a hard time picking up more mundane talents. Psychics can pull off feats no other class can, but they pay for it in a very restricted focus. <i>Only psychics can learn psionic powers.</i>
Warrior	Whether a fur-wearing barbarian from a primitive backwater world or an elite space marine trained to operate advanced energy weapons, a warrior's business is fighting. While all classes are capable of self-defense, the warrior is quickest to pick up the skills necessary for causing the largest amount of havoc in the least amount of time. If you want your character's best talents to be in fighting, you should choose the Warrior class. <i>Warriors have uncanny luck on the battlefield. Once per fight, they can automatically evade an attack that would otherwise have hit them.</i>

Choosing a Background and Training Package

Once you've rolled up your attributes and chosen a class, you are now ready to be a bit more specific about what your character is like. It's unlikely that the character sprang forth full-grown from the endless depths of space, so it's probable that he or she had some sort of background before adventuring, and some kind of special training in a field suitable for the life of an interstellar wayfarer.

To determine precisely what sort of background your character has had, you should choose a *Background Package* from the following pages. Each package includes a brief description and a list of skills that the package grants. You should personalize this description to your character's specific past; if she was an Armsman on a primitive world, for example, you should put some thought into what manner of lord she served and why it was she left her former employment.

New backgrounds might be created with the cooperation of the GM, or existing ones altered to fit specific games or characters. If none of them fit your character or you simply wish to choose your own set of skills, you should pick the Adventurer background and just write in a few brief notes on your character's early days.

Background packages grant *skills*. Skills are specific topics in which a character has received some training. Skills are measured in levels, ranging from 0 for those with minimal training to 5 or higher for the greatest practitioners in the galaxy. Each skill listed in the background package is gained at level 0.

If a skill reads "Any", such as "Combat/Any" or "Tech/Any", you may choose any specialty of that skill, such as "Combat/Projectile" or "Tech/Postech". For entries that read "Culture/World", you should choose a specific planet for which to apply the skill- most probably your character's homeworld.

After you choose a background package, you should then turn to your class description page and select a *Training Package*. This represents the additional experience you received that gave you the training you now rely on. As with background packages, you should customize your choice to reflect your character's history.

Each training package also provides a list of skills. As with background packages, your character gains each skill listed at level 0. If a skill appears in both your background package and your training package, you gain it at level 1 instead of level 0.

Some training packages also have skill listings that allow you to select any specialty for Combat, Culture, Profession, Tech, or Vehicle skills. You may choose such skills as you like, but you cannot duplicate a skill already on the training package list.

Choosing a Homeworld

Every character comes from somewhere. Once you've decided what kind of background and training your character has received, you should choose an appropriate world for them to call home. A lostworlder huntress trained in tracking and archery is unlikely to hail from a pretech manufacturing orbital, and a character trained in the use of energy weapons probably doesn't come from a desolate tomb world.

Your GM might provide you with a list of worlds suitable to the game that he has already created for the sector. In that case, you should select one of the options on that list, or else work out the details of a more unusual origin with the GM.

If no list is provided, you should take a moment to make a brief description of your character's homeworld. Details such as its name, level of technology, and a general idea of its government should be noted down. Most modern frontier worlds are at a tech level sufficient to make basic starships, primitive energy weapons, and sprawling fusion power plants. A tech level above this point should be cleared with the GM, as such planets are very rare.

Somewhat more common are those planets with functioning psychic training academies. Naturally, any psychic character is going to either have to come from such a world or have acquired their training on one, as the use of untrained psychic powers is inevitably corrosive to the user's sanity and health. Whether or not the psychic character is still in the service of their homeworld is for you to decide.

Background Packages

The following choices are just some of the options that exist for a character's background. At the GM's discretion, additional packages might be added or existing ones might be changed to suit a particular game setting.

Adventurer

Space is vast, and there are always those who refuse to fit a particular mold. This background choice is for those who would prefer to pick their own skills and make their own past.

Skills: Culture/World or Culture/Spacer and any two skills.

Armsman

Lostworlders often build their cultures on brute force and cold steel. These men and women are often in the pay of a local warlord or religious leader, using hard-won combat skills and a keen tactical eye to do their master's bidding. Some of them who end up on the wrong side of a political question have reason to get offworld, and quickly.

Skills: Combat/Primitive, Combat/Unarmed, Culture/World, Tactics

Astrogator's Mate

Scavenger Fleets and major spacecraft have an entire crew of astrogators dedicated to plotting the next spike drive path and navigating the dangerous energy fluxes of the space between. These men and women require further seasoning before they'd be trusted with a post as a full astrogator, but they still learn the essentials of the profession.

Skills: Culture/Spacer, Navigation, Science, Vehicle/Space

Bandit

In the absence of a strong local government, men and women can make a living stealing from others. These bandits often rely as much on their ability to evade vengeful hunters as they do on their accuracy with bow and blade. Some find their opportunistic ways leading them offworld when the chance arises.

Skills: Combat/Primitive, Culture/World, Stealth, Survival

Biotech Crew

A lot can go wrong in space, and few problems are as immediately lethal as a breakdown in a ship's life support systems. Biotechs not only serve as medical crew but are also responsible for maintaining and repairing the ship's life support.

Skills: Culture/Spacer, Science, Tech/Astronautic, Tech/Medical

Comm Crew

Commtechs operate a ship's radio and tightbeam laser communications systems, and usually find additional duties in maintaining a ship's computer software. A career spent talking to potentially unfriendly audiences give most commtechs a great deal of practice at keeping a smooth, persuasive line of speech.

Skills: Computer, Culture/Spacer, Persuade, Tech/Postech

Con Artist

Some thieves get what they want with a gun, but others find it easier with a kind word and a smile. Con artists are wise to keep moving ahead of their angry marks, but the trip can be an enjoyable one.

Skills: Culture/Criminal, Culture/World, Persuade, Stealth

Deck Crew

The "deck apes" make up the bulk of a ship's crew, each one responsible for one of a host of back-breaking or dangerous duties. Modern ships lack much of the automation and redundancy of pretech starcraft, and the price of an extra crewman is often far cheaper than that of the robot or braked AI that would otherwise be necessary.

Skills: Athletics, Combat/Unarmed, Culture/Spacer, Gambling

Engine Crew

Ferocious radioactivity and arcing power makes the engine room of a large spacecraft into a deathtrap for an unwary engine "snipe". Ancestral rivals of the "deck apes" on most ships, engine crew wear heavy protective suits while tending the balky and temperamental postech engines of modern starships.

Skills: Culture/Spacer, Exosuit, Gambling, Tech/Postech

Gunnery Crew

Few ships mount enough weaponry to justify a complement of specialized gunners, but naval warships always have a substantial number aboard. Gun crew have a daredevil reputation in most navies. The massive capacitors and generators required in most gun emplacements have a tendency to be the first to blow during a heavy engagement, taking out the vast banks of fire control computers and the crew along with them.

Skills: Combat/Gunnery, Culture/Spacer, Computer, Tactics

Hermit

Whether from a desire for solitude, an esoteric religious reason, or local fear of an untrained psychic, some lostworlders find a life as a solitary hermit. Those who would live off an unforgiving world's bounty must be wary and knowledgeable, and some come to tire of their solitude or seek a greater loneliness in the stars.

Skills: Culture/World, Perception, Survival, Stealth

Noble

Almost every world has its elite, but some lost worlds or splinter cultures take the idea to an excess rarely found on more advanced planets. The nobility of most lost worlds has a degree of power over their lessers that would be unthinkable elsewhere, but the consequences of a political error can be correspondingly fatal. Those with the money and the chance often seek exile among the stars.

Skills: Combat/Primitive, Culture/World, Leadership, Persuade

Peasant

A surprising number of spacer families have started from a dirt-grubbing lostworlder peasant who thought to find a better life in the sky. Tough, practical, and with a keen knack for holding on to the wealth that comes their way, peasants can often endure rigors that would put an end to less pragmatic folk.

Skills: Culture/World, Profession/Any, Steward, Survival

Politician

On most civilized worlds politics isn't the blood sport it can be on more elemental worlds. Even so, there are times when a politician can find his or her best advantage in a lengthy span out of the public eye, preferably offworld. The best of them have a distinct knack for adapting to new power structures.

Skills: Culture/World, Leadership, Persuade, Steward

Priest

Priests or religious leaders of some kind exist on almost every planet, and most of them couple sincere belief with a pragmatic knowledge of human nature. It's not uncommon for a priest to choose to take the blessed word to the heathens among the stars and find more success there than unbelievers might expect.

Skills: Culture/World, Leadership, Persuade, Religion

Researcher

Advanced worlds rarely get that way without the help of researchers. The secrets of pretechnology require a huge knowledge base to even understand, let alone replicate, and the mysteries of psitech remain locked to the vast majority of worlds. Sometimes a researcher finds it necessary to seek new data offworld.

Skills: Culture/World, Perception, Science, Tech/Any

Scholar

The secrets of the past lie in both deeds and objects, and a scholar is often skilled in unearthing both. While they rarely concern themselves with precise specifics, many scholars have a breadth of understanding uncommon to the world bound denizens of a single planet. The urge to know the truth of things can push them into dangerous expeditions offworld.

Skills: Culture/World, History, Instructor, Science

Security Crew

Whether the "red suits" of holovid fame or the club-wielding enforcers aboard a mining frigate, the security crewmen are responsible for maintaining order aboard the ship and taking control of landing areas. Most are a ruthless and clannish lot, little-loved by the crew and greatly feared by those natives who face them in battle.

Skills: Combat/Any, Culture/Spacer, Security, Tactics

Soldier

Men and women dedicated to war, soldiers exist on almost every world. Those described by this background are trained, experienced combatants who know how to use the gunpowder weaponry that is the baseline for all but the most primitive or most advanced worlds. Wherever others face the unknown, one can expect a soldier along to provide much-needed security.

Skills: Combat/Projectile, Combat/Unarmed, Culture/World, Tactics

Technician

Technicians keep an advanced world's technology running and its populace healthy. Some focus on inanimate tech, while others are medical experts who use sophisticated devices to keep their fellow humans in repair. Some sort of technical expert is all but indispensable on any expedition due to the need for repairs.

Skills: Culture/World, Exosuit, any two Tech skills except Maltech or Psitech.

Transport Specialist

Goods are worth little if they can't get to a buyer, and transport specialists are there to provide the conveyance. Whether a hot zone grav trucker or a courier ship pilot, these specialists know how to use a steady hand on the wheel to make a delivery.

Skills: Combat/Gunnery, Culture/World, Navigation, Vehicle/Any

Tribesman

Some are woad-painted lostworlder clansmen, while others are gangsters among looming habitat towers. Whatever their surrounding, tribals are those men and women who identify with a family or group above any outside law. There are times when the destruction of the tribe or the need for outside help drives a tribal to seek a wider world.

Skills: Combat/Primitive, Combat/Unarmed, Culture/World, Survival

Urchin

Castoffs and byblows and orphans, there are few worlds that don't have at least a few unwanted children growing up in the shadow of more fortunate families. Those of them that survive learn how to do what is necessary to live, and often that means leaping at the chance to get offworld.

Skills: Culture/World, Culture/Criminal, Stealth, Survival

Worker

Truck drivers, grounds keepers, factory workers, and a hundred other professions are described by this background. Even in advanced societies, there is usually some manner of labor that requires more patience than creativity, and those consigned to such work are often ready to seek something more rewarding among the stars.

Skills: Culture/World, Profession/Any, Vehicle/Any, any one skill.

Skill Checks

When a character attempts a difficult action, the GM may call for a *skill check*. Skill checks involve both the relevant skill and the most relevant attribute modifier as well. For climbing a steep cliff, this might be Athletics and Strength, while repairing a balky spike drive before the local patrol ships catch up to you might require Tech/Astronautics and Intelligence. Usually the skill and attribute are obvious, but the GM has the final say if necessary.

To make a skill check, the player rolls 2d6 and adds his character's relevant skill level and attribute modifier. If the total equals or exceeds the check's difficulty number, the check is a success.

The easiest checks are usually at difficulty 6; anything easier than this is usually routine, and not worth the time to check. Rolls of average difficulty start at 8, while challenging feats might be 10, 12, or even more for feats impossible for all but the best of the best.

If the character is completely untrained in the skill, the player subtracts 1 from the roll. Exceptionally complex skills, such as Navigation or Tech/Pretech might not even allow a check for untrained characters. The GM might also apply one-point or two-point bonuses or penalties for exceptionally bad conditions or unusually favorable situations.

SKILL LEVELS	
No Skill	The character is completely untrained in the skill. She might still be able to attempt it, if the task is simple enough, but complex and demanding feats are completely beyond her.
0	Trainee. The character can carry out simple, routine tasks with the skill, and has at least a chance of managing more difficult feats.
1	Professional. The character has normal professional skill in the field, and can perform most ordinary tasks with little chance of failure.
2	Expert. The character is noticeably superior to most practitioners of the skill, and even difficult feats have a good chance of success.
3	Master. This level of expertise is normally reserved to true specialists. There is probably not a better practitioner of the skill in the star system.
4	Legendary. There is probably no better practitioner of the skill in the entire stellar sector.



Character Skills

The following list covers the more common skills found among adventurers. The GM is always free to adjust this list, adding new fields or combining skills as desired. Some GMs may even prefer to run a game without skills, simply assigning bonuses to skill checks based on the class and level of the characters.

Some skills require specializations, such as the Combat, Vehicle, Tech, Culture, and Profession skills. A character can acquire more than one specialization in a skill, but these skills must be advanced separately. A sublime skill in Vehicle/Sea does little to help a character pilot a spacecraft with Vehicle/Space.

Artist

The character is trained or gifted in a particular type of art. The character should select a specific medium when this skill is gained.

Athletics

Running, jumping, climbing, swimming, and other feats of athletics or acrobatics are covered by this skill.

Bureaucracy

A skilled bureaucrat knows how to deal with complex legal and administrative systems, and how to find files or records quickly.

Business

The character knows how to run a business and deal with other entrepreneurs.

Combat

(Specialties)

This skill is actually composed of several specialties, each one of which must be learned separately.

Energy Weapons: Use of high-tech weaponry that relies on energy emissions such as lasers or plasma.

Gunnery: Use of heavy vehicle-mounted weapons or fixed guns, whether on spacecraft or planetary vehicles.

Primitive Weapons: Use of muscle-powered weapons such as knives, bows, or clubs, as well as thrown weapons such as grenades. This includes high-tech versions of these weapons.

Projectile Weapons: Use of mechanically-powered weaponry such as crossbows, pistols, rifles, and the like.

Psitech: Use of psitech weaponry. This skill is usually useless to non-psychics, as almost all psitech weaponry requires some psionic talent to use.

Unarmed: Weaponless combat techniques. Unlike other forms of weaponry, a practitioner of unarmed combat can add their Combat/Unarmed skill to the damage roll as well as the hit roll. Characters with Unarmed-2 expertise are so good that they can even injure targets in powered armor and other gear that would otherwise prevent effective Unarmed attacks.

Computer

The character is skilled at operating and programming computers, as well as operating most advanced communications systems.

Culture

(Specialties)

As with Combat, Culture is composed of numerous specialties, each one of which must be learned separately.

Alien: The character is familiar with a particular alien race, knowing their traditions, physiology, and psychology. They can also speak and understand the aliens' language, assuming it is physically possible for a human to do so.

Criminal: The character is familiar with criminal subcultures and the protocols for dealing with black markets and underground organizations.

Spacer: The character knows the traditions and customs of interstellar spacefarers and deep-space colonists. They are comfortable in zero-g environments, and can identify ships and astronaut equipment.

Traveller: This skill is unique in that it can only be taken at level 0 and cannot be raised. It can substitute for any other planet's Culture skill, however, and represents a casual, basic knowledge of many different worlds. This skill is useless on worlds that have been completely cut off from interstellar contact. Traveller skill grants no linguistic proficiency.

World: This specialty must be taken individually for each specific world, and relates to knowledge of that world's society, government, tech level, and laws. Level 0 in this skill also grants basic proficiency in that world's most common language if the character is not already proficient in it.

Exosuit

The character is trained in the use of powered exosuits. These forms of heavy armor are often used in dangerous environments ranging from asteroid mining to shock trooper assaults on enemy positions.

Gambling

The character knows numerous games of chance and has a better than usual chance of winning them.

History

The character has training in galactic history and can identify worlds, events, and people of historical importance.

Instructor

The character knows how to teach the skills they possess. A psychic must have at least level 3 in this skill in order to safely train an unskilled psychic, and must have received the special instruction required for a psionic mentor.

Language

The character speaks additional languages. At each level, the character learns a number of new languages equal to the skill's level plus one. Thus, at level 0, they learn one new language, at level 1, they learn two new languages, and so forth.

Leadership

The character is trained in leading others in high-stress situations. Characters with this skill can keep the obedience of subordinates even in dangerous situations or when giving hazardous orders.

Navigation

The character can navigate using compasses, astronomic readings, dead reckoning, or other tools. At level 0, this skill is sufficient to navigate on a planet's surface, but at least level 1 is required in order to navigate a starship through a successful spike drive drill.

Perception

The character has keen senses, and is often able to notice details or hidden objects that elude other people.

Persuade

The character has a knack for convincing others of the truth and sincerity of their words.

Profession (Specialties)

This skill must be taken in a particular specialty related to the character's profession, and is intended to cover those jobs that don't already have applicable skills on this list. A doctor would take Tech/Medical, for example, while a lawyer would take Profession/Lawyer.

Religion

The character is trained in theology and familiar with the more common or notorious religious sects on the surrounding worlds.

Science

The character is a trained scientist and capable of operating laboratory equipment, conducting research, and developing new technology. This skill covers all conventional scientific applications, but actually building or repairing objects requires the Tech skill.

Security

The character is familiar with primitive and modern security systems, both in setting them up and defeating them. The character can pick a lock, defeat a retinal scanner, circumvent a pressure sensor, and otherwise attempt to overcome security measures.

Stealth

The character knows how to move silently, conceal their presence in shadows, and avoid notice.

Steward

The character is trained in managing wealth and property efficiently. Business skill makes money, but the Steward skill keeps it and grows it. Lack of this skill can result in large fortunes becoming small ones through taxes, petty theft, and chicanery.

Survival

The character is trained in survival techniques for subsisting in hostile environments with minimal supplies. Assuming that the world itself isn't inimical to human life, they can usually find food and water even in harsh conditions.

Tactics

The character is familiar with small unit tactics. They can set up and recognize ambushes, maneuver troops effectively in combat, and set up fighting positions sensibly. In the absence of Tactics skill, Leadership skill tends to produce only glorious defeats.

Tech (Specialties)

This skill is broken down into several specialties, and is required for building or repairing that variety of technology.

Astronautic: Anything on or related to spacecraft comes under the astronautic heading, including spike drives, life support systems, and ship gunnery.

Maltech: Forbidden technology such as bio- or nano-warfare tech, unbraked AI development, or weapons of planetary destruction.

Medical: Surgery, first aid, disease treatment, cybernetics, and biological utility organisms.

Postech: Mechanical and electronic technology developed after the Scream, including almost all of the technology in use on modern frontier worlds.

Pretech: Advanced technology dating from before the Scream, often requiring manufacturing techniques that are no longer available on the frontier.

Psitech: Repairing and building technology that interfaces with a psychic's psionic powers. This tech is almost unknown in the present day, and normally found only in the form of recovered artifacts.

Vehicle (Specialties)

This skill is for the operation or flight of vehicles, and must be bought for one of several specialties.

Air: Atmospheric planes, zeppelins, or helicopters.

Grav: Antigrav vehicles such as are found on most modern frontier worlds.

Land: Surface vehicles, including riding animals.

Space: Spacecraft and transorbital vehicles.

Water: Ships, boats, and other seagoing craft.



Whether technicians, scholars, criminals, pilots, or scientists, experts are men and women possessed of some rare or exceptional skill. Whatever their expertise, the Expert succeeds where others wouldn't even know where to begin.

The Expert class is the best choice for a character that revolves around an expertise not related to combat. They gain new skills faster than any other class, though they have some difficulty picking up martial talents.

CLASS TRAITS

PRIME ATTRIBUTES

Intelligence or Charisma

HIT DICE

d6

SPECIAL ABILITY: LIKE A CHARM

Once per hour, the expert can reroll a failed skill check. The second roll must be used even if worse than the first.

EXPERT CLASS SKILLS

All except for Combat skills, Tactics, and Tech/Psitech.

EXPERIENCE TABLE

Level	Hit Dice	XP
1	1d6	0
2	2d6	1,510
3	3d6	3,020
4	4d6	6,020
5	5d6	12,040
6	6d6	25,080
7	7d6	50,160
8	8d6	100,320
9	9d6	200,640
10	9d6+1	300,640
11+	+1 HP per level	+100,001 per level

ATTACK BONUS AND SAVING THROWS

Level	Attack Bonus	Physical Effect Save	Mental Effect Save	Evasion Save	Tech Save	Luck Save
1-4	0	16	15	12	11	14
5-8	2	14	13	10	9	12
9-12	4	12	11	8	7	10
13-16	6	10	9	7	6	8
17-20	8	9	8	6	4	7

Adventuring Expert

This training option exists for those who would prefer to pick their own skills rather than selecting from an existing package.

Skills: Any six skills, at least four of which must be Expert class skills.

Bounty Hunter

With the option of offworld flight existing for certain criminals, it's not uncommon for planetary governments to employ significant numbers of bounty hunters to track down their most notorious fugitives. For these bounty hunters, actually overcoming the target is the easiest part of the job; it's finding them that requires effort.

Skills: Combat/Any, Culture/Any, Navigation, Persuade, Stealth, Survival, Tactics, Vehicle/Any

Criminal

Ordinary thieves and grifters tend to have short, unpleasant careers terminated either by their own incompetence or the punitive grip of the law. Expert criminals have the potential for something greater, wedding a broad range of larcenous skills to a brazen ambition.

Skills: Business, Combat/Primitive, Culture/Criminal, Gambling, Perception, Persuade, Security, Stealth

Explorer

The galaxy is jeweled with countless lost worlds, exotic races and forgotten edifices, both of mankind and of stranger breeds. The explorer means to find these far-flung places and add them to the known sphere of human knowledge. The profession requires not only a deft talent at navigation, but the ability to survive whatever the explorer finds.

Skills: Athletics, Combat/Any, Culture/Any, Navigation, Perception, Survival, Tech/Postech, Vehicle/Any

Pilot

Frontier pilots are often forced to deal with jobs that might be fobbed off on specialists aboard the ships of richer owners. The best of them can fix almost anything that might break aboard a ship, and then drill it out to the next star single-handedly. This technical versatility makes them useful dirtside as well.

Skills: Combat/Gunnery, Culture/Spacer, Exosuit, Navigation, Tech/Astronautics, Tech/Postech, Vehicle/Any, Vehicle/Space

Preceptor Adept

The Preceptors are an organization of scholars and instructors dedicated to the preservation of human knowledge. Many of their adepts are found in space, seeking to share their knowledge with less fortunate worlds in exchange for a modest recompense.

Skills: Bureaucracy, Culture/Any, History, Instructor, Persuade, Science, Tech/Medical, Tech/Postech

Scientist

Expert scientists stand out from among their less enlightened brethren by the sheer breadth and vigor of their knowledge. Almost any variety of technology yields to their study, and they have a knack for dealing with the kind of bureaucratic organizations that spring up to foster- or contain- their researches.

Skills: Bureaucracy, Culture/Any, Perception, Science, Tech/Postech, Tech/Pretech, Tech/Any, Vehicle/Any

Xenoarchaeologist

The galaxy is full of the echoes of former sentient species, and the xenoarchaeologist is trained in unearthing their secrets. The ruins of these ancient races are often quite dangerous for humans, and more than one xenoarchaeologist has been forced to defend their dig site against the depredations of more profit-minded scavengers.

Skills: Combat/Any, Culture/Any, History, Language, Perception, Science, Tech/Any, Vehicle/Any



Psychics are those men and women touched by MES-“Metadimensional Extroversion Syndrome”. The energies that course through a psychic are lethal to an untrained mind, leading inevitably to madness or death unless rigorous training tames them in time. Psychic characters wield these powers to accomplish remarkable feats such as telepathy, precognition, and more.

The Psychic class is the only class that is able to learn psychic powers. They trade the broad skill set of the Expert and the martial prowess of the Warrior for these enigmatic disciplines.

CLASS TRAITS

PRIME ATTRIBUTES

Wisdom or Constitution

HIT DICE

d4

SPECIAL ABILITY: PSYCHIC POWERS

The Psychic is the only class that can develop psionic powers. For a full description of the psionic disciplines and their development, see the Psionics chapter.

PSYCHIC CLASS SKILLS

Combat/Psitech, Culture/Any, History, Perception, Profession/Any, Religion, Tech/Medical, Tech/Psitech

EXPERIENCE TABLE

Level	Hit Dice	XP	PP Gained*
1	1d4	0	+1
2	2d4	2,005	+3
3	3d4	4,010	+5
4	4d4	8,020	+7
5	5d4	16,040	+9
6	6d4	32,080	+11
7	7d4	64,160	+13
8	8d4	128,320	+15
9	9d4	250,640	+17
10	9d4+2	370,000	+19
11+	+2 HP per level	+125,000 per level	+3

* Psychics add their best prime attribute modifier to the psi power gained each level.

ATTACK BONUS AND SAVING THROWS

Level	Attack Bonus	Physical Effect Save	Mental Effect Save	Evasion Save	Tech Save	Luck Save
1-5	0	13	12	15	16	14
6-10	2	11	10	13	14	12
11-15	4	9	8	11	12	10
16-20	6	7	7	9	10	8

Adventuring Psychic

This training option exists for those who would prefer to pick their own skills rather than selecting from an existing package.

Skills: Any two skills, at least one of which must be a Psychic class skill.

Academy Graduate

Most worlds that have recovered the secrets of psychic training have established special academies to educate up and coming psychics. The curriculum taught at these academies tends to be very practical in nature. Medical science to deal with the neural trauma of psychic powers, psitech operation, and practical social engineering techniques are all part of the average academy course of study.

Skills: Combat/Psitech, Persuade, Tech/Medical, Tech/Psitech

Criminal Mind

The temptations of easy wealth lure a disturbing number of psychics, men and women willing to use their powers for personal advancement regardless of the cost to others. These criminals often need to keep on the move, as most planetary police departments prioritize psychic criminals above every other category of lawbreaker.

Skills: Culture/Criminal, Persuade, Security, Stealth

Healer

Biopsionicists are gifted with enormous powers of healing and restoration, but telepaths are also known for entering the medical profession. Healer psychics often blend mundane medical technology with subtle psychic manipulations.

Skills: Culture/Any, Perception, Tech/Psitech, Tech/Medical

Military Psychic

Psychics are rarely useful as direct agents of destruction, but their capacity to alter a battlefield with their powers gives them a significant role in militaries that have mastered the necessary training protocols. These psychics tend to excel at maintaining an inconspicuous cover, as enemy psychics are always high-priority targets in warfare.

Skills: Combat/Any, Combat/Psitech, Stealth, Tactics

Psychic Researcher

Vast secrets of psychic power remain buried in the wreck of ages. Whole disciplines were lost when the Scream destroyed the psychic culture of humanity centuries ago, and psychic researchers are dedicated to unearthing these secrets anew. The work is horrendously dangerous as psychic burnout claims the great majority of researchers within a few decades. Still, the promise of lost power always draws new students.

Skills: Bureaucracy, History, Science, Tech/Psitech

Rogue Psychic

Some psychics refuse affiliation with any greater organization. Either trained by a renegade mentor or a survivor of an extinct academy, these rogue psychics are often hired out by organizations and planets that lack psychic training programs of their own.

Skills: Combat/Any, Culture/Any, Persuade, Stealth

Tribal Shaman

Some lost worlds or splinter cultures retain a religious veneration for psychics; a few have even developed enough knowledge to successfully train newly-active psychics. The products of these cultures tend to be exquisitely versed in esoteric religious doctrine, and are often capable of impressive performances of song, dance, or other ritual art.

Skills: Artist, Culture/Any, Persuade, Religion



Warriors are most accustomed to a life of combat and martial exertion. Whether a tribal axeman on some backwater world that has forgotten how to make steel or a power-armored shock trooper, a warrior is trained in the most efficient available means of destruction.

The Warrior class is the best choice for a character whose chief talent involves combat. Warriors can learn other skills and often do, but they have the most aptitude for fighting of all three classes.

CLASS TRAITS

PRIME ATTRIBUTES

Strength or Dexterity

HIT DICE

d8

SPECIAL ABILITY: VETERAN'S LUCK

Once during each combat the warrior can completely negate a successful attack roll against him or her. The warrior may choose to wait until after damage is rolled to use this ability. This ability does not function against environmental hazards or other non-combat dangers, and it does not apply to hits against a vehicle the warrior is piloting or riding.

WARRIOR CLASS SKILLS

Athletics, Combat/Any, Exosuit, Leadership, Perception, Profession/Any, Stealth, Survival, Tactics

EXPERIENCE TABLE

Level	Hit Dice	XP
1	1d8	0
2	2d8	2,005
3	3d8	4,010
4	4d8	8,020
5	5d8	16,040
6	6d8	32,080
7	7d8	64,160
8	8d8	128,320
9	9d8	250,640
10	9d8+2	370,000
11+	+2 HP per level	+125,000 per level

ATTACK BONUS AND SAVING THROWS

Level	Attack Bonus	Physical Effect Save	Mental Effect Save	Evasion Save	Tech Save	Luck Save
1-3	1	12	15	14	16	13
4-6	3	10	13	12	14	11
7-9	5	8	11	10	12	9
10-12	7	6	9	8	10	7
13-15	9	6	8	7	9	6
16-18	11	5	7	6	8	6
19-21	13	5	6	6	7	5

Adventuring Warrior

This training option exists for those who would prefer to pick their own skills rather than selecting from an existing package.

Skills: Any four skills, at least two of which must be Warrior class skills.

Assassin

There are always those willing to pay to remove obstacles, and assassins are those willing to take the work. Some are crude street thugs while others are polished professionals. The nature of the work requires regular travel, and some assassins find it most prudent to be perpetually on the move.

Skills: Athletics, Combat/Any, Culture/Criminal, Security, Stealth, Tactics

Commando

Trained for infiltration behind enemy lines and dealing with the peculiarities of foreign cultures, commando troops are tough, stealthy, and capable. Some find themselves at loose ends after leaving whatever service trained them, and seek new frontiers on distant worlds.

Skills: Athletics, Culture/Any, Combat/Any, Stealth, Survival, Tactics

Exchange Enforcer

The Exchange is a peaceful organization of diplomats and bankers, dedicated to harmony and mutual profit. That wealth brings less pacifistic interest, and Exchange enforcers are trained to defend their charges and ensure that contracts are honored. They often prefer peaceful negotiation to violence- but violence is always an option.

Skills: Business, Combat/Any, Culture/Any, Persuasion, Security, Tactics

Ground Forces

Elite exemplars of whatever armed force trained them, infantry specialists have a versatility that gives them a distinct edge in many combat situations. Many with this training were non-commissioned officers in their former militaries.

Skills: Athletics, Combat/Any, Combat/Projectile, Leadership, Tactics, Vehicle/Any

Mercenary

Gold can't always get you mercenaries, but mercenaries can always get you gold. That truism has led countless men and women to spend their lives in brutal brush wars and civil skirmishes. Mercenaries are rarely welcome on worlds with a strong central government, but enough worlds lack that quality to make their profession a persistent one.

Skills: Business, Combat/Any, Combat/Projectile, Culture/Any, Perception, Tactics

Space Marine

It's rare even for a naval warship to have a significant contingent of these men and women aboard. "Space Marines" specialize in quick assaults on vulnerable ships or planet-bound installations, trained to overwhelm and neutralize the opposition aboard a boarded ship or native outpost.

Skills: Combat/Energy Weapon, Combat/Primitive, Culture/Spacer, Exosuit, Tactics, Tech/Astronautics

Templar

Most modern worlds have worked out an acceptable modus vivendi among their various religions, one in which all can coexist peacefully. Not all worlds are so fortunate. For whatever reason, some religions find it necessary to train "holy warriors" for their cause, either to defend the faithful or scourge the unbeliever.

Skills: Combat/Any, Culture/Any, Perception, Religion, Stealth, Tactics

Final Touches

Now that you've established the attributes, class, skills, and homeworld of a character, you're almost finished. The final touches that remain are rolling hit points and choosing your character's starting equipment. For a psychic character, you also need to choose a primary and secondary psychic discipline and record your starting psi power points.

Hit Points

Hit points are a measure of a character's vitality, health, and luck. During combat or when facing environmental hazards a character can expect to take damage to their hit points. This damage may reflect physical injuries, but it usually simply means a near-miss shot or narrowly-avoided blow that has chipped away at a character's reserves of luck, stamina, or resolve. Only the last handful of hit points represents serious physical injury.

Less driven or courageous people might retreat or give up after taking significant hit point damage, preferring to abandon the fight before taking a hit that might kill them. Player characters are made of sterner stuff, and can operate without penalty even when down to their last hit point.

A character reduced to zero hit points is dead or mortally wounded, and only quick application of biopsionic healing powers or advanced medical tech can hope to revive him.

To determine a character's maximum hit points, roll the hit dice associated with their class and add their Constitution attribute modifier. For psychics, this is 1d4, while experts roll 1d6 and warriors roll 1d8. Even those characters with a Constitution penalty start with at least 1 hit point.

Don't worry too much if you roll a low number. As your character gains experience they will gain more hit points and the chance to reroll poor dice. Some GMs may choose to omit the initial roll entirely and simply start new characters with the maximum possible hit points.

Languages

A modified version of English is the lingua franca of the far future, but many worlds use other languages. Each character begins speaking English, their native language if that differs, and one additional language per point of Intelligence modifier bonus.

Characters who wish to speak more languages should invest in the Languages skill.



Starting Equipment

A character's starting equipment can normally be selected from any Tech Level 4 equipment or lower from the Equipment chapter's lists. Even characters from a primitive world can normally expect to lay their hands on that kind of equipment in their travels. Tech Level 5 equipment or even more advanced gear is not usually accessible to starting characters without GM permission.

Your character begins with 400 credits, plus 1d6 x 100 more. Any credits left unspent can be saved for later expenditures. This equipment may be gear that your character has bought with his or her savings, or it may be the fruits of past service, plunder, or theft.

If your character is an expert or a warrior, congratulations; you're done with creating your character. Psychics have one more step in selecting their psionic powers.

Psionic Powers

If your character is a psychic, you should turn to the Psionics chapter and read the details on using psychic powers. As a novice, you need to select one *primary discipline*. This discipline starts at level 1, and each time you go up an experience level, it rises by one point as well. Once it reaches level 9, you need to pick a new primary discipline in which to advance.

Aside from this, you may choose to gain level 1 proficiency in a second psychic discipline. Each time you go up an experience level, you can spend another point either in this discipline or a new one. No discipline can be rated higher than your experience level.

Lastly, you need to record your psi power points. For a first level psychic, this maximum is 1 plus the highest attribute modifier of Wisdom or Constitution. Each time you go up a level, you should add both the additional points given on the psychic experience table and your best attribute modifier of Wisdom or Constitution.

CHAPTER TWO

PSIONICS

Before the catastrophic destruction of the Scream, psychic training and research was largely controlled by the interstellar organization known as the Psionic Authority. Based on a terraformed Mars, the Authority ensured that even the worlds of the remote frontier could have at least minimal access to psychic training. Without a correctly-trained mentor, a feral psychic faced either a lifetime of suppressing his abilities or the certainty of death or insanity.

The Scream erased the Psionic Authority. As so much of a psychic's training depended upon a living trainer, the sudden loss of every psychic in human space eliminated the ability to educate others in the control and safe development of their powers. Records and databanks in abandoned Authority training academies provided hints on the redevelopment of the training protocols, but attempts to do so were always hideously expensive in lives and minds.

Relatively few worlds have since recovered the basics of psionic training. Those worlds that have managed to rediscover the rudiments of the protocols guard them jealously, and very few psychics are ever taught the correct exercises and metapsychic pathing exercises necessary to customize a training regimen for a new psychic. Psionic mentors are usually kept under guard by the worlds that have them, both to protect them from mishap and ensure that they remain correctly employed.

Still, there are rogue academies scattered throughout the frontier. Most are affiliated with some form of cult, political movement, or secret society, though a few are simply schools open to any students who can make the tuition payments. There are even a few rogue mentors who work alone, selectively preparing students for purposes and reasons that belong to them alone.

Behind all of this, there remain persistent rumors of untouched Authority research centers hidden beyond the edges of the frontier. Some say that the secrets to the lost disciplines of the golden age can be found among the ancient dead. Other stories tell only of horrors locked away by psychics long dead, and the awful cost of their forbidden researches.

Psionic Powers and Disciplines

Psionic powers are divided up into *disciplines*, each of which has nine levels of powers. The powers of a discipline must be learned in order; a psychic cannot master Telepathy 3 before mastering levels 1 and 2. A psychic cannot learn a discipline level higher than his or her experience level.

Psionic powers may be used at any time during a character's turn, but a psychic can use a power only once per round. Using a psionic power counts as a character's action during a round.

Powers that trigger automatically due to special circumstances, like a precognitive warning or a defensive shield, do not count against these limits and can be activated whenever the appropriate circumstances arise. Some powers are noted as being "free actions". These powers can be triggered at any time, even outside of a character's normal turn for acting.

Some psionic powers can be triggered to defend against an attack or mitigate its effects. Only one defensive power can be triggered to defend against any given attack. Thus, a character that chooses to activate *Destiny's Shield* to avert a hit can't then trigger a *Telekinetic Counterstrike* if the shield fails. This limit applies only to powers that are triggered in response to an attack. It does not apply to powers that simply provide a lasting protection, such as *Kinetic Bleed*.

Using a psionic power costs *psi points*. Psychic characters gain psi points each level, increasing their maximum energy available. A character regains all expended psi points once every twenty-four hours, provided he or she has had at least eight hours of rest immediately beforehand. This recovery represents the careful meditative reconstruction of the buffer between a psychic's metadimensional energy conduits and his or her own nervous system.

The cost of activating a psychic power depends on the power's level. The more advanced the power, the more energy that must be channeled through the psychic's brain. A psychic can handle only so much metadimensional energy transfer before the power start to cause permanent neural damage.



A psychic may choose to master a particular power they know. Mastering a power requires the *permanent* expenditure of psi power equal to the power's activation cost. These points cannot be regained by any means, and once a power has been mastered, there is no way for a psychic to "unmaster" it. A psychic must master a discipline's powers in order. It is not possible to master Telepathy 5 until the psychic has already mastered levels 1 through 4. A psychic can only master powers which are lower in level than their current experience level. For example, a level 4 psychic can only master discipline levels 1 through 3. Mastering a power requires two weeks of practice per level of the power.

The advantage of mastering a psychic power is that that particular power is thereafter treated as if it had an activation cost of 0. Unless some outside penalty increases the activation cost, a psychic may use it at will without depleting their remaining store of psi points.

Those desperate psis who either lack training or have run out of psi points may draw directly on their neural reserves to fuel a psychic power. "Torching", as this technique is called, causes inevitable and permanent damage to the psychic, though it can power any level of psychic discipline. Each round that a psychic torches, he must roll 1d10. On a result of 1-4, he permanently loses one point of Constitution. A result of 5-8 causes the permanent loss of a point of Wisdom, and a result of 9 or 10 means the energy discharge did no lasting harm to his neural tissues. If Constitution drops below 3, he dies, and if Wisdom drops below 3, he becomes incurably and dangerously insane. There is no known treatment for damage caused by torching. Insane characters become NPCs under the control of the GM.

Those torchers who succumb to insanity may use their psionic powers freely with no further risk of degradation. The MES energies have already burnt a pathway through their mind, and no further damage is possible. These "ferals" can gain additional

psychic powers with time, and can be extremely dangerous to anyone unlucky enough to encounter them. A very few can maintain a seemingly coherent facade, but beneath it all they invariably suffer from uncontrollably violent urges, hallucinations, and compulsions.

Psychic powers are normally invisible. Changes they produce are obvious, such as teleportation or the sudden lifting of a grav sled, but the powers themselves leave no visible light or sound. Even those that successfully resist a psychic power will not realize what has happened unless they have had prior experience in being psionically attacked- and even then, they will not necessarily know who has launched the attack.

Unless otherwise noted by the power, psychic abilities affect any target the psychic can touch or can see with natural, unaided vision. A blinded psychic can only use powers that affect himself, a target being touched, or powers that affect an broad, unspecific area. Touching an unwilling victim firmly enough to activate a psionic power normally requires an Unarmed attack roll against the target.

Most people on worlds with active psychic academies understand the basic facts about psionic powers, including the inability of psychics to target things they can't sense. Police forces on these worlds will be familiar with the necessary steps of blindfolding and restraining psychics to minimize the dangers they present.

Primitive worlds or those without the benefit of contact with trained psychics are at more of a disadvantage, and may not understand the nature of the powers being wielded against them. Some might respond in superstitious fear, while others might be more violently disposed toward the "witch"- especially if they have had experience with the depredations of feral psychics.

Psi Power Activation Cost	
Discipline Level	Psi Point Cost
1	1
2	3
3	5
4	7
5	9
6	11
7	13
8	15
9	17

Biopsionics

At its simplest level, the discipline of biopsionics involves the rectification of injuries and sicknesses by vastly augmenting a target's natural immunities and healing rates. An adept practitioner can heal severe injuries and cure illnesses, as well as banish the effects of fatigue and mental stress. Biopsionic powers can accelerate natural healing enormously, but they cannot regrow limbs or organs. More advanced uses of the discipline can increase a subject's physical capabilities, allowing skilled biopsionists to perform superhuman feats of strength and agility. Biopsionic powers normally function only on willing targets; even subconscious resistance disrupts the delicate exertion.

System Strain

Use of these powers usually creates System Strain in a target and there is a limit to the amount of psionic manipulation an organism can withstand before it requires time to recover malleability. A creature's maximum System Strain is equal to their unaugmented Constitution score, and they cannot benefit from biopsionic powers if their System Strain is already maximized. Each 24 hours spent without biopsionic modification decreases a subject's System Strain by one point.

Biostasis

Level 1

The biopsionic can maintain the vital life processes of a mortally wounded teammate with a touch. The biopsionic may restore to life a creature he is touching that has been dead for no more than six rounds. There is a 100% chance of success if this power is used within three rounds of death, with the chance decreasing by 25% for each round afterwards. The creature is set to zero hit points and remains unconscious until it receives medical attention. It will die if it does not receive such attention within 24 hours. This power does not function on creatures that have been torn apart or otherwise mangled beyond conventional surgical repair, nor those dead of poison, disease, or old age. This power adds 2 System Strain points to the target if successful.

Psychic Succor

Level 2

The biopsionic banishes stress, fatigue, and wounds with a touch. Each activation of this power heals 1d8 hit points in the target, plus the target's Constitution modifier. A minimum of 1 hit point is always healed, and the psychic cannot give a subject more hit points than their normal maximum. Use of this power adds 1 System Strain point to the target.

Purge Toxin

Level 3

The psychic can force the elimination of a disease or poison from a target. Each invocation of the power on a target allows them to make an additional Physical Condition saving throw against the illness or poison at a +2 bonus, plus the target's Constitution modifier. If the target died due to a poison or disease within the last three rounds, a successful save restores them to life at 1 hit point. This power does not function against genetic illnesses or conditions present from birth. Use of this power adds 1 System Strain point to the target.

Invincible Stand

Level 4

Activation of this power on a target allows the subject to continue acting even when their hit points have been lowered below zero. The effect lasts only to the end of the psychic's next turn, and the subject will die regardless if brought to -30 hit points. If the target is at negative hit points when the power ends they must make a Physical Effect saving throw or die on the spot. If successful, they live with 1 hit point. Each round of this effect adds 1 System Strain point to the target. This power may be used as a free action.

Augment Organism

Level 5

The psychic boosts the physical capabilities of a target within line of sight. For five minutes, the subject gains either +1 to their Dexterity modifier or their Strength modifier. This power can be used up to twice on a single target, either adding +1 to both modifiers or +2 to one. Each activation of this power increases the target's System Strain by 1 point.

Metamorph

Level 6

The psychic changes their physical appearance to that of any creature of the same species. A specific other creature can only be mimicked if it is within line of sight. Unlike most biopsionic powers, this functions even if the "original" is unwilling. This alteration does not change the psychic's statistics, and lasts for up to one hour. Activating this power increases the psychic's System Strain by 1 point.

Psychic Vitality

Level 7

The psychic emits a wave of biopsionic energy that invigorates and heals nearby allies. All creatures within twenty meters that the psychic considers allies gain 2d8 hit points plus twice their Constitution modifiers, up to their normal maximum hit points. Use of this power adds 2 System Strain points to every subject affected.

Entropic Resonance

Level 8

A living organism suffers a sudden breakdown of cellular integrity, taking 6d6 hit points of damage. On a successful Mental Effect saving throw at a -2 modifier, this damage is reduced by half. As might be surmised, this biopsionic power works on unwilling targets, and can only affect a given creature once every 24 hours.

Nine Lives

Level 9

This power automatically triggers when the biopsionic dies, assuming they have sufficient psi power remaining. The biopsionic appears to be dead to all non-psychic investigations, and indeed may be torn to pieces, mostly incinerated, or otherwise mangled. Provided that the entire body is not burnt or dissolved, the biopsionic will gradually regenerate from the largest remaining body fragment over the course of one hour, reviving with full hit points. The biopsionic is aware of his surroundings while "dead", and can forestall regeneration until attention has left his "corpse". This power automatically maximizes the psychic's System Strain and can be used only once per week.

Metapsionics

The discipline of Metapsionics is one of the more esoteric psionic arts, as it has to do with the operation of other psychic powers rather than producing its own set of effects. An experienced metapsionic can severely hamper the abilities of other psychics or greatly augment their own talents. All metapsionic abilities last for five minutes per activation, unless noted otherwise. Powers that increase the activation costs of psionic abilities affect even mastered abilities; in that case, the cost to activate a mastered ability is equal to whatever penalty the metapsionic applies.

Advanced metapsionic research was a crucial element in the development of the specialized psionic disciplines that powered so much pretech technological innovation. Modern researchers are regularly frustrated by the rarity of this discipline, and some less scrupulous worlds do not hesitate to “recruit” metapsionics for their research programs. The long-term survival rate of such researchers is distressingly low.

Psychic Harmonization

Level 1

On triggering this ability, the psychic becomes resistant to hostile psionic forces. They gain a +2 bonus to all saving throws versus psionic effects for the duration of this power. While this ability is active, the metapsionic can also determine whether or not a person they are touching has any psychic abilities, though not specific disciplines.

Psionic Static Field

Level 2

For the duration of this power, activating any psionic ability within line of sight of the psychic costs psi points as if the power were one level higher. This ability does not affect level 9 powers. The psionic and her allies are not affected by their own static field, and multiple static fields do not stack in effect.

Metapsionic Concert

Level 3

On activating this power while touching one or more willing psionic allies, those involved can freely redistribute their total psi points amongst all participants. No psychic can be left with more psi points than their normal maximum, and if a psychic declines the chosen division they withdraw from the concert with their psi points unchanged.

Neural Surge

Level 4

The metapsionic cannibalizes their neural activity to help fuel their psionic powers. Each round this power is in effect, the psychic takes 1d4 hit points of damage and gains twice that many psi points, up to their maximum normal psi points. If the character is at their maximum psi points, they do not take damage that round. This damage can only be cured by normal rest and recuperation, as well as with certain extremely rare psitech medical compounds. This power can be ended as a free action.

Cerebral Path Shift

Level 5

The metapsionic temporarily alters the psychic pathways in their own or another's mind. When used against a psychic target within visible range, the victim must make a Mental Effect saving throw or lose mastery of any mastered psychic powers. They may repeat this saving throw at the end of every round to end this effect. When the metapsionic targets himself, he can treat any one known psionic power of level 4 or lower as mastered for the duration of the path shift. If this ability is mastered only the offensive use of it has its activation cost reduced to 0.

Psychic Backlash

Level 6

The metapsionic targets a psychic within unaided visual range. If the target fails a saving throw versus Mental Effect, they suffer neural feedback when using their abilities, suffering hit point damage equal to half the activation cost of any powers they use. Mastered powers are treated as if they had their normal activation cost. The victim may make a new saving throw versus Mental Effect at the end of each of their turns to end this power.

Armor of Will

Level 7

While this power is in effect, the metapsionic may spend 5 psi points as a free action to reroll any failed saving throw versus psionic effects, or grant a reroll to any ally within line of sight. Any given saving throw may be rerolled only once.

Psychic Avalanche

Level 8

The psychic's powers surge with sudden force. While this power is in effect, the psychic can force a target to reroll any successful saving throw against the metapsionic's powers. This power can be applied only once to any given roll, and the neural strain inflicts 2d6 damage on the psychic each time a reroll is forced.

Eye of the Storm

Level 9

Psychic powers ebb and flow at the metapsionic's whim. While this power is in effect, the metapsionic becomes aware of the location and nature of any psionic power usage within forty meters. Psionic activations can be squelched at will unless the victim makes a successful Mental Effect saving throw. The powers of the metapsionic and his allies cost 3 fewer psi points to activate than normal.

Metapsionics and Psychic Aliens

Some alien species are possessed of innate psychic powers granted by their unique heritage. Others learn their abilities much as humans do, and are susceptible to the same risks of MES burnout and torching. As a general rule, offensive metapsionic powers don't affect aliens that are using natural abilities, but do affect psychic aliens that are using powers that require psi points to trigger.

Metapsionic powers that grant bonuses to saving throws or saving throw rerolls, such as *Psychic Harmonization* or *Armor of Will*, will grant the bonus or reroll as normal against “natural” alien psychic powers.

Precognition

Precognition has always been the most unpredictable of the common psychic powers. Past experience suggests that the future remains mutable despite a precog's visions and decisive action can serve to avert an undesirable outcome. Advanced forms of precognition appear to have the power to actively influence the future, forcing outcomes based on the precog's wishes. Few precogs receive visions unrelated to their immediate situations. Focus and will can force limited insights into a situation, but longer-term revelations are impossible to compel. Interestingly enough, there is no reliable record that any precognitive received warning of the Scream.

Omen

Level 1

The precog may force a brief subconscious examination of future possibilities. The precog must have a relatively straightforward choice before her- perhaps to open a box, swallow a pill, or go into a spaceport bar. The precog will receive a distinct sense of whether following that course of action will result in physical injury or mental distress within the next ten minutes, according to the GM's best judgment of likely outcomes. This power can be used only once per hour.

Terminal Reflection

Level 2

This power triggers automatically when the psychic is likely to be unexpectedly injured within the next sixty seconds, and gives the psychic a single image of the probable damage. The warning comes in time for the precog to halt an action likely to result in injury. If the psychic chooses not to spend the activation cost after this power triggers, the sense goes numb for the next 24 hours.

Alternate Outcomes

Level 3

When the psychic fails an attack roll, saving throw, or skill check she can immediately trigger this power to gain a second attempt at the roll. This last-minute aversion destabilizes future probabilities, however, and the precog must voluntarily reroll a successful attack roll, saving throw, or skill check before she can activate this power a second time. Rerolling a trivial success is not normally sufficient to rectify the probability debt.

Destiny's Shield

Level 4

The precog senses incoming attacks and instinctively moves to avoid them. This power can be triggered after a successful enemy hit, and forces a reroll of the attack. Using this power clouds the precognitive's responses with alternate possibilities; if the second roll is also a hit, the damage done is the maximum possible.

Forced Outcome

Level 5

The precognitive not only perceives the immediate future, she also becomes capable of manipulating it. The precog becomes capable of determining the outcome of any one simple random event in her presence. Dice will roll the total she decides, coins will flip as wished, and Russian roulette ceases to be surprising. The more external factors that influence the random event, the more difficult it is to influence; anything that isn't the outcome of a single mechanical event is generally too complex to control.

Cursed Luck

Level 6

The precog can knot a target's future with a random spray of negative outcomes, trending their future towards injury and death. For five minutes after this power is triggered, the target rolls twice for any attack rolls or skill checks and takes the worst of the two rolls. Enemies who attack the target gain +2 to hit rolls. The target can subconsciously shake this effect for one round by making a successful Mental Effect save at the beginning of the round, but this saving throw must be rerolled each round.

Foretelling

Level 7

The precognitive's powers of detection begin to extend beyond the immediate future. With ten minutes of focused meditation, the precog can activate this power for an impression of the next important event that is likely to involve them personally within the next week. Brief images and visions of place are usually obtained, usually involving those people and locations most important to the event. If no important event is likely to happen within the next week, the power returns nothing. This ability can be used only once per week or until the foreseen event comes to pass, whichever comes first.

Not My Time

Level 8

The precognitive's subconscious will to live stymies those futures in which they die. This power triggers automatically when the psychic is about to die, provided they have sufficient psi power to activate it. On triggering, events conspire to leave the psychic alive and relatively safe, no matter how improbable the outcome: the nuclear bomb fails to detonate, the bandits leave her for dead, the starship plunging into a black hole manages to launch a lifeboat in time, et cetera. While the precog will not face immediate death again after using this power, such safety might last no more than minutes. There is also no guarantee that this power will leave the precog healthy; advanced precogs survived the Scream but were rendered irrevocably insane. This power can activate no more than once per week.

Strange Attractor

Level 9

The precog shifts to physically inhabit multiple lines of possibility. On triggering this power, the precog effectively splits into two people, both of whom can then perform a full round of actions, albeit neither can activate other psychic powers. The two possibilities can move and act separately, and both have identical sets of equipment. The aspects take damage separately, but share the same pool of psi power for any relevant purposes. At the end of the round, the psychic chooses one of the two possibilities; the other vanishes along with their equipment, though the consequences of their actions remain.

Telekinesis

Telekinesis applies not only to the crude manipulation of matter at a distance, but also to the subtle adjustment of force in all its forms. Brute exertions of force are relatively simple to accomplish, but master telekinetics are notable not for the raw force they can bring to bear, but the exquisite precision of their control. Unless otherwise specified, the activation of a telekinetic power lasts for five minutes. Attempting to manipulate an item being held or worn by another person is difficult; unless they cooperate, psychic interference allows them to make a Mental Effect saving throw to foil the attempt and immediately end the duration of the telekinetic power being used. Telekinesis cannot lift the psychic or the surface he is standing on unless specifically noted otherwise. When not otherwise noted, a psychic can move an object up to 40 meters per round.

Remote Manipulation

Level 1

The psychic can manipulate any object visible to his unaided vision as if handling it with one hand. The force has an effective Strength of 10 and can be used to wield an object to attack at a -2 penalty to hit and using the relevant combat skill of the psychic.

Telekinetic Press

Level 2

The psychic's strength increases at this level, if not his degree of control. Objects can still only be manipulated as if with one hand, but up to two hundred kilos can be lifted, or force exerted as if Strength 18. This force lacks enough fine coordination to successfully attack a mobile target.

Complex Manipulation

Level 3

Much as Remote Manipulation, but the psychic can now manipulate the object as if with two or more hands, simultaneously operating multiple switches, dials, or controls. This force suffers no penalty when wielding an object to attack.

Telekinetic Ram

Level 4

The psychic can launch bursts of enormous force, albeit with limited control. This power does a number of eight-sided dice of damage equal to the psychic's telekinesis discipline level, but the object to be struck must be immobile. This force can damage vehicles and other objects normally affected only by Gunnery-class weaponry.

Kinetic Shield

Level 5

The psychic begins to gain a finer control over powerful forces, and can deflect physical projectiles and weapons that would otherwise strike them. This power can be used up to once per round after being hit by a successful physical attack; the attacker must reroll the hit and damage rolls and take the worse result.

Telekinetic Counterstrike

Level 6

The psychic begins to turn enemy weapons against their wielders. This power can be used up to once per round after being attacked by a physical weapon, such as a bullet, blade, or fist. The target must make a Mental Effect saving throw; if successful, the attack is resolved as normal, but damage is rolled twice, and the lesser amount is taken by the psychic. If the target fails their Mental

Seeing In Time

Psychic researchers have determined that seeing into the past is a much more difficult process than perceiving future events. Something about the passage of time fixes events into a rigid matrix that MES energies are largely unable to assay, while the future remains comparatively plastic and mutable under a psychic's attentions.

Researchers before the Scream were undeterred in their attempts to develop a workable postcognitive discipline, and scattered records suggest that they may have been at least partially successful in the years immediately preceding the Scream. A few late-era pretech artifacts may actually have been reverse-engineered from postcognitive analysis of ancient xenotech.

It seems highly unlikely that any researchers in recent times have been able to revive the protocols of the lost discipline, but the knowledge may still exist somewhere among the scattered worlds of humanity.

Effect saving throw, the attack rebounds to hit them automatically for normal damage.

Bootstrap Flight

Level 7

The psychic becomes capable of lifting himself and up to four hundred kilos of gear or teammates for one round. The psychic must maintain concentration while flying, but can move at the rate of 120' per round.

Kinetic Bleed

Level 8

The psychic develops more sophisticated control over kinetic energy. While this power is in effect, the psychic ignores up to 40 points of damage from physical impacts, lasers, plasma, or other thermal effects. This shield lasts five minutes per activation, but the buffer itself does not regenerate until an hour has passed after its last use.

Mind Over Motion

Level 9

While in effect, the psychic possesses a perfect command of kinetic forces within a twenty meter radius. Any motion by an object massing less than three hundred kilos is subject purely to the psychic's whim. Each round that a living creature wishes to contest the effect they must make a successful Mental Effect save at the beginning of the round. Even success on this save will not terminate the power's duration, though it will allow the subject to move freely for that round and launch projectile attacks as normal. Projectile attacks launched from outside the zone invariably fail, as the attacker is not close enough for their psychic interference to block the psychic's control.

Telepathy

Telepaths tend to provoke even more than the usual unease in non-psychics, and rumors and exaggerations of their power run rampant on many worlds. Novice telepaths are actually capable of only the crudest sensing of emotions, but masters of the art can sift a brain in moments. Subjects of telepathy are normally unable to tell when a psychic is probing them, though a few extremely advanced pretech shield systems can prevent the scan and alert a target of the assault. Unless otherwise specified, a particular telepathic power usage lasts for five minutes. A subject who makes a successful Mental Effect saving throw against telepathic intrusion becomes immune to that level of telepathy for 24 hours, albeit not to other telepathic powers of different levels.

Empathy

Level 1

The user may determine the current emotions and any especially strong, emotionally-charged surface thoughts in the subject. This insight lasts only a few seconds. The target may make a Mental Effect saving throw to prevent the mind-reading; on successful save, the psychic gains only an impression of their current emotions.

Metalinguistics

Level 2

The psychic can understand the meaning of a sentient subject's language, regardless of whether or not she speaks the language or even has the correct physiognomy to comprehend it. Her words are understood in turn by the target. There is no saving throw against this power.

Mental Link

Level 3

The psychic can form a telepathic connection with a willing target, sharing words and images freely. The two must share a language to communicate verbally unless Metalinguistics is also used. The link persists until either of the participants ends it or the duration runs out. If the psychic masters this power, mental link durations last indefinitely. The psychic may not have more mental links active at once than they have levels in Telepathy. The link cannot reach beyond a single solar system.

Memetic Probe

Level 4

The psychic can dig relevant facts about one topic out of the target's memories. The subject must be able to consciously remember the details involved. On a successful Mental Effect saving throw the target resists this power.

Surface Telepathy

Level 5

The psychic gains a steady perception of the surface thoughts of one target. A successful Mental Effect saving throw by the target resists this power.

Psychic Assault

Level 6

The telepath launches a violent mental assault on a sentient life form. If the subject fails a Mental Effect saving throw, they cannot act for 1d4 rounds and suffer a number of hit points of damage equal to the psychic's telepathy discipline level x 1d4. This assault can be used on a given target only once per twenty-four hours.

Selective Probe

Level 7

This power functions much like Surface Telepathy, but allows the telepath to dip selectively into the target's memory, retrieving remembered details about particular topics that appear in their surface thoughts. This power cannot recover details that the targets have themselves forgotten. A successful Mental Effect saving throw by the target resists this power.

Deep Memory Analysis

Level 8

This power functions much as Memetic Probe, but it taps a deep level of subconscious and distributed memory in the target, allowing the psychic to observe memories that even the subject has forgotten. About an hour's worth of experience can be perfectly reconstructed from the subject's memory for every five minutes of deep memory analysis.

Overpowering Will

Level 9

This power can be triggered up to once per round as a free action after a target has made a successful Mental Effect saving throw against one of the psychic's powers. The target must reroll their saving throw at a -2 penalty and take the worse result.

Teleportation

Teleportation is perhaps the rarest of the common psychic disciplines, allowing its possessor to instantly translocate himself from one point to another. A novice teleporter can translocate only his own body weight plus four or five kilos of clothing and equipment. As their skills improve, they are able to teleport larger amounts of mass, including other people if they are touching the teleporter and within the mass limits. Teleporting an unwilling sentient is difficult, as the psychic must sync with their mental signature at precisely the right moment for the teleport. For unwilling subjects, a successful Unarmed attack roll is necessary to touch the target and the psi points for the teleport must be expended- and the character must teleport- whether or not the attack is successful. Sentient targets must also fail a Mental Effect saving throw to be teleported against their will.

The psychic must have personally visited the target location at least once before jumping to it, or else be able to see it with unaided vision. The psychic cannot teleport to arbitrary locations. For example, he could not teleport to "The cargo bed of my grav sled." without knowing where the grav sled was parked and having visited that location before. Teleporting equalizes velocity with the target surroundings; a free falling teleporter can jump harmlessly to the ground if it's within range and the psychic has enough time to activate the power.

Only advanced pretech shield technologies can prevent a teleporter from arriving at a location. The teleporter will instinctively abort jumps that would leave him embedded in solid objects or lethal surroundings, should the terrain at a target point have changed so since his last visit. Psi points are expended normally even for failed jumps. A character who teleports can perform only free actions for the rest of the round.

Sidestep

Level 1

The teleporter has unlocked the rudiments of the discipline. They can teleport up to 10 meters and carry up to 5 kilos of clothing, equipment, or other living organisms with them.

Jaunt

Level 2

The psychic's range increases to 20 meters and his mass limit to 10 additional kilos.

Spatial Shift

Level 3

The psychic's range increases to 40 meters and his maximum additional mass limit rises to 20 kilos.

Greater Shift

Level 4

Teleportation range is now 80 meters, with up to 40 additional kilos of gear or living compatriots.

Transit Jump

Level 5

Teleportation range is now 1 kilometer, and maximum cargo mass increases sharply to 200 kilograms.

Extended Translation

Level 6

The psychic's range is now 10 kilometers and their maximum cargo mass is 400 kilos of gear.

Regional Jump

Level 7

Teleportation range increases to 100 kilometers, and the maximum cargo mass increases to 800 kilos.

Continental Jump

Level 8

Range increases to 1,000 kilometers and the maximum cargo mass is now 2,000 kilos.

Orbital Warp

Level 9

The teleporter now instinctively interfaces with the metagravitic field of planetary bodies, and can teleport to any valid location on a given world regardless of range. The teleporter can also jump from high orbit to the planet's surface and vice-versa. The maximum mass a teleporter of this level can shift is 4,000 kilos.

CHAPTER THREE

EQUIPMENT

Every aspiring stellar adventurer needs the essential equipment of his trade. For some, it might consist of appropriate toolkits and medical supplies, while others prefer to spend the greater part of their funds on heavy weaponry. Prices may vary, but certain needs are eternal.

The following tables provide general guidelines on the kind of equipment that might be available on a reasonably sophisticated world. Prices can vary drastically depending on the supply of a particular good; a remote frontier outpost might have plenty of firearms to hand, but a good guitar might go for ten times the common rate. Players and GMs should treat the prices listed as rough guidelines.

Tech Levels

Equipment availability is limited by *tech level*. The tech level of a world indicates the available resources in advanced technology or sophisticated equipment. A full detailing of each tech level is given in the World Generation chapter, but for reference, there are seven possible tech levels, ranging from 0 for objects of chipped stone and carved wood, steam power and gunpowder weaponry beginning at tech level 2, and modern spike drives and interstellar flight at tech level 4. Tech level 5 is appropriate for pretech or psitech artifacts dating from before the Scream, while the vanishingly rare tech level 6 represents equipment or devices that somehow exceed the limits of that lost golden age.

Beginning characters can normally buy starting equipment of tech level 4 or lower as their funds allow. GMs who choose to begin the game on a more primitive world than usual might restrict this to a lower tech level.

Encumbrance

Characters might want to carry an armory on their backs and the contents of a general store in their pockets, but this is rarely a practical ambition. Characters can only carry so many things, and carrying a great deal can slow them down substantially.

A character can have ready a number of items equal to half their Strength score, rounded down. Ready items include those that the character is using or wearing at all times, or that they have conveniently to hand in sheaths, holsters, or belt pouches. Suits of armor count as readied items, but the normal clothing and jewelry

that a character might wear does not. A character can draw or produce a readied item as part of any action they may take during a turn.

A character may have a number of stowed items equal to their full Strength score. Stowed items are carried in backpacks, in carefully-balanced leg or arm pockets, or otherwise packed away where they will least encumber the character. If a character needs to get out a stowed item in a hurry, it will take one round to dig it out of their pack or pockets.

Very small items carried in small numbers do not count against encumbrance limits. Other small items can be packed together into bundles to simplify their carriage, though getting at them then takes an additional round of fumbling with the packaging. Exactly how many of a given small item can be packed into a single item bundle is up to the GM, though as a rule of thumb six Type A energy cells or three magazines of bullets can be bound into one packed item. Extremely bulky or unwieldy objects might count as multiple items at the GM's discretion.

Characters can burden themselves with more gear if they're willing to sacrifice some fleetness of foot to do so. Up to two additional items can be carried ready or four additional ones stowed at the cost of becoming Lightly Encumbered, and having their base movement slowed from 20 meters per round to 15 meters per round. A further two items can be carried ready or four stowed at the cost of becoming Heavily Encumbered, with base movement reduced to 10 meters per round.

On the equipment lists, some items are given an encumbrance value higher than 1. These items count as multiple objects for encumbrance purposes, being heavy, clumsy, or unwieldy to carry.

Credits and Money

The value of goods is commonly measured in *credits*. Before the Silence, the credit issued by the Exchange of Light was the currency of exchange throughout human space. Most worlds attempt to mimic this currency to greater or lesser success. For game purposes, the credits of different starfaring worlds are assumed to be interchangeable unless the GM and players care to embrace careers in the murky realm of interstellar currency arbitrage. Credits usually take the form of electronic banking entries, though

physical “chips” or “notes” often appear on more primitive worlds. A hundred of these chips count as one item for encumbrance purposes.

Prices given for equipment and gear assume that they are being bought legally on a world capable of manufacturing such equipment. Even primitive worlds can occasionally provide more advanced equipment to wealthy buyers, assuming they are not completely cut off from interstellar trade, but buying advanced equipment on a primitive world tends to be an exceedingly expensive prospect. Prices may be double, triple, or as much as ten times as great for items greatly in demand and in short supply.

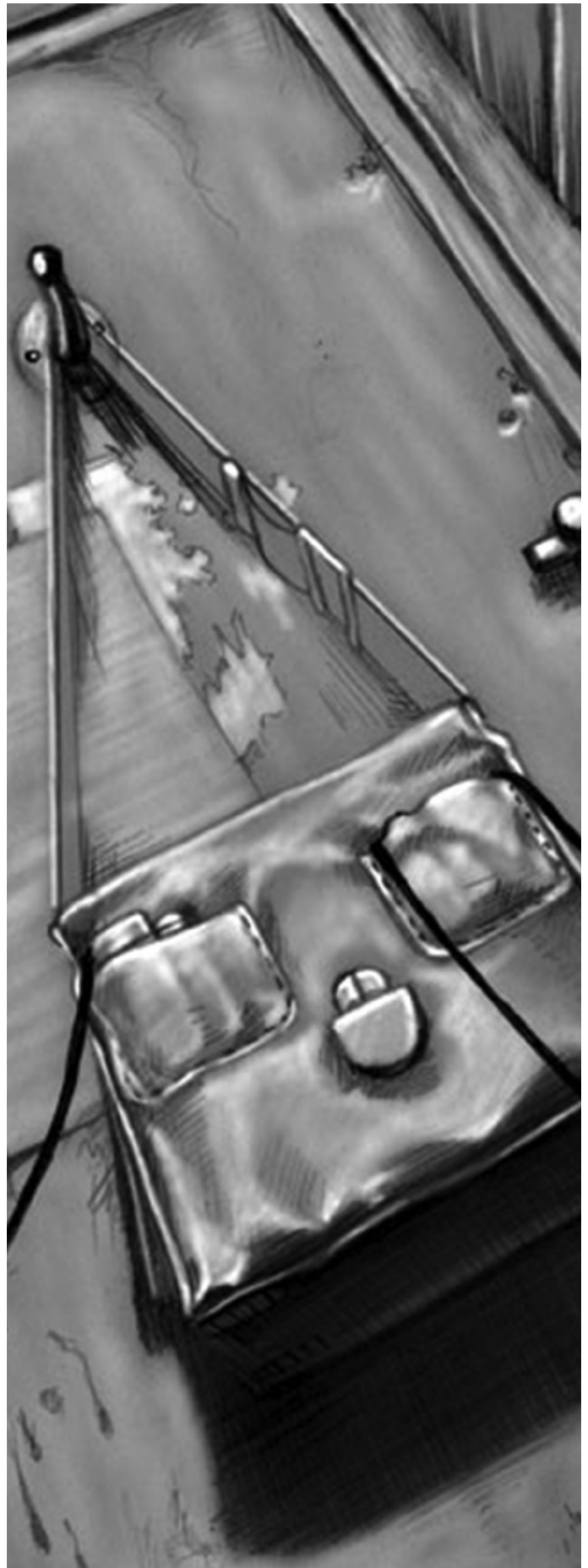
Primitive or isolated worlds might not use or accept credits, instead preferring trade goods or precious metals. Such worlds rarely have much worth trading for, and those that do tend to rapidly attract other freebooting merchants. The influx of precious metals from cheap asteroid mining soon spoils the market for metals, and the natives usually start to demand credits in payment. The first merchant to a world can make a killing with the equivalent of beads and trinkets, but those who come after usually end up needing credits or more useful barter goods.

Equipment Legality

Most worlds have their own customs regarding the open flaunting of weaponry or armor. Visitors are advised to apprise themselves of local law before leaving the starport. Most frontier worlds tolerate or even expect small personal weapons to be carried, but visible armor can often provoke a distinctly negative reaction in all but the roughest places. Many worlds outright forbid civilian ownership of advanced armor technology. Officials tend to reason that while a weapon may be justified in self-defense, no one would put up with the discomfort of heavy armor without expecting to make some trouble with it.

Other worlds may have other idiosyncratic rules regarding permissible equipment. Some worlds with unbreathable atmospheres restrict the possession of oxygen generation equipment in order to keep the air supplies firmly in the hands of the local rulers. Other planets forbid certain technology on religious or philosophical grounds. Some worlds grant limited permission to keep these goods secured aboard a ship, but others conduct inspections in the starport to search for “contraband goods”.

A scouting report, the Culture skill appropriate to the world, or a past history on the planet will all suffice to alert characters to any special laws regarding permissible equipment on a world.



ARMOR TYPES				
<i>Armor</i>	<i>Armor Class</i>	<i>Encumbrance</i>	<i>Cost</i>	<i>Tech Level</i>
Shield	-1 bonus	1	10/100	0/4
Leather Jack	7	1	10	0
Metal Mail	5	2	50	1
Metal Plate	3	2	100	1
Woven Body Armor	5	1	400	3
Armored Undersuit	7	0	600	4
Combat Field Uniform	4	0	1,000	4
Assault Suit	2	2	6,000	4
Powered Armor	1	2	10,000	4
Field Emitter Panoply	0	1	30,000	5
Deflector Array	2	0	30,000	5

Armor

Armor is a popular acquisition for adventurers as their lifestyle often puts them in harm's way. Completely unarmored human combatants rarely last very long in a fight, and have a base Armor Class of 9. Armored or not, characters subtract their Dexterity modifiers from their Armor Class.

Heavy suits of armor can count as more than one item for encumbrance purposes. Very light suits may not encumber at all.

Shields lower the armor class of users by 1 point against primitive weapons of tech level 3 or less. Advanced tech level 4 varieties also function against projectile weapons of tech level 3 or less.

Primitive armor, such as *leather jack*, *metal mail*, or *metal plate*, is of limited use against advanced weaponry. Weapons of tech level 3 or higher ignore this armor.

Woven body armor is composed of assorted composites, plastics, and ceramic inserts. While bulky and cumbersome, it is effective armor under most circumstances and the armor of choice for tech level 3 worlds.

Armored undersuits are skin-tight metaplast bodysuits that are all but invisible under normal clothing, and a popular choice for adventurers wishing discreet protection.

Combat field uniforms are the standard tech level 4 combat dress for military units and elite security squads. A metaplast overlay on sintered microceramic plates, it absorbs impacts, thermal shocks, and shearing blows very well, while being substantially lighter than woven body armor.

Assault suits and **powered armor** require some Exosuit training in order to be operated correctly. Characters with no Exosuit training suffer -2 to hit while wearing an assault suit, and -4 while wearing powered armor. Level 0 Exosuit training is sufficient to remove the penalty for assault suits, while powered armor requires level 1 training. A person wearing powered armor can carry an additional two items readied and four items stowed without encumbrance.

Both assault suits and powered armor have self-contained atmospheres and can be used as vacuum suits for up to six hours before requiring atmosphere recharging. Those in assault suits or powered armor are immune to injury from unarmed attacks or man-portable weapons of tech level 3 or lower. Alien creatures usually have natural attacks capable of overcoming this quality. Both assault suits and powered armor require one Type A power cell for each 24 hours of operation.

Field Emitter Panoplies are complex exoskeletal energy arrays which bubble the wearer in close-fitting damper fields. These fields filter out most radiation and all microorganisms, and integral atmosphere crackers allow use of the FEP as a vacc suit indefinitely. FEPs grant the same immunity to primitive and natural human weapons that powered armor possesses. A FEP requires one Type A power cell for each 24 hours of operation.

Deflector arrays are subtler versions of FEPs, with their shields invisible except when they are deflecting an attack. Deflector arrays can be worn beneath ordinary clothing. The array cannot be used as a vacc suit or environmental protection, and grants no special protection against primitive weaponry. A deflector array requires one Type A power cell for each 24 hours of operation.



PRIMITIVE WEAPONRY AND UNARMED ATTACKS					
<i>Weapon</i>	<i>Damage</i>	<i>Range in Meters</i>	<i>Cost</i>	<i>Attribute</i>	<i>Tech</i>
Unarmed Attack	1d2	-	-	Str/Dex	-
Knife	1d4	6/9	5	Str/Dex	0
Club	1d4	-	-	Str	0
Sword	1d8	-	20	Str/Dex	1
Greatsword	2d6	-	30	Str	1
Spear	1d6	10/20	8	Str	0
Primitive Bow	1d6	50/75	15	Dex	1
Advanced Bow	1d6	100/150	50	Dex	3
Grenade	2d8	10/30	25	Dex	3
Kinesis Wraps	1d2+2	-	100	Str/Dex	4
Monoblade	1d8+1	6/9	50	Str/Dex	4
Stun Baton	1d8*	-	50	Str	3
Suit Ripper	1d6	-	75	Str	4
Ranges are expressed in normal and maximum ranges. Firing at a target beyond normal range applies a -2 hit penalty. * Damage done by a stun baton can leave a target unconscious, but will not kill them.					

Primitive Weaponry

“Primitive” weaponry includes a wide range of muscle-powered hardware ranging from bare-handed strikes to advanced monomolecular cutting bars. Despite the prevalence of projectile and energy weapons on frontier battlefields, most primitive weaponry has the advantage of operating even under the worst environmental conditions. It also presents little danger of puncturing fragile environmental seals.

Most primitive weaponry has essentially the same statistics whether it's the product of a postech metallurgy lab or a lostworlder blacksmith. The product of advanced science might keep a better edge and resist tarnishing better than the native steel, but the difference isn't usually enough to be worth noting. Some blades might be exceptional works of art, however, and grant their bearers bonuses to hit or damage. Such weapons are usually the products of pretech forges, and can easily be hundreds or thousands of times as expensive as their plainer brethren, assuming one can be found for sale at all.

Weapons count as one item for encumbrance purposes. Weapons that require two hands to use, such as greatswords or rifles, count as two items.

Knives, Clubs, Swords, Greatswords, and Spears are all normal equipage for primitive worlds. The worlds most lacking in metal deposits or skill might be forced to rely on stone weaponry, which might be so fragile as to break on a natural roll of 1 on an attack. Some primitive weapons such as greatswords are large and unwieldy, requiring two hands for use.

Primitive bows are usually fashioned of gut, glue, wood, horn, and other natural components all carefully crafted to hold together under hard use. Modern components allow **advanced bows** to greatly increase this weapon's effective range.

Grenades are thrown explosive weaponry. Grenade users always roll to attack AC 9. On a miss, the grenade lands 1d10 meters away from the target in a random direction. Hit or miss, the grenade then explodes for 2d6 damage to all targets within 5 meters. Victims are allowed a Luck save for half damage. Targets take 1 less point of damage for each point of AC below 6.

Kinesis wraps are special metaplast gloves, boots, or knuckle dusters that translate the user's blows into very focused impact points. A person using kinesis wraps can injure even those targets who are wearing advanced armor that would normally render them immune to fisticuffs. Fighting with kinesis wraps uses the Unarmed skill.

Monoblades are a family of bladed weapons ranging from monomolecular knives to chainswords. While the wounds they inflict aren't much more terrible than their unpowered brethren, they can affect even those targets wearing advanced armor.

Stun batons are popular among the police forces of most technically advanced worlds, using impact to trigger a discharge of nonlethal electricity. A Type A power cell will fuel a stun baton for up to forty successful hits. The batons themselves are flexible and ineffective as bludgeons. A target brought to 0 hit points by a stun baton is rendered unconscious rather than dead, and will recover any hit points lost to the baton within an hour. Batons can be used to kill, but it requires extensive beating of an already-unconscious target.

Suit rippers are rods that blossom into mace-like balls of fractal razors designed to overwhelm a vacc suit's self-sealing properties. A character with 10 or fewer hit points struck by a suit ripper always suffers a tear in their suit. Possession of these devices is normally a capital offense in space.

PROJECTILE WEAPONRY						
<i>Weapon</i>	<i>Damage</i>	<i>Range in Meters</i>	<i>Cost</i>	<i>Magazine</i>	<i>Attribute</i>	<i>Tech</i>
Crude Pistol	1d6	5/15	20	1 @	Dex	2
Musket	1d12	25/50	30	1 @	Dex	2
Revolver	1d8	30/100	50	6	Dex	2
Rifle	1d10+2	200/400	75	6	Dex	2
Shotgun	3d4	10/30	50	2	Dex	2
Semi-automatic Pistol	1d6+1	30/100	75	12	Dex	3
Submachine Gun	1d8 *	30/100	200	20	Dex	3
Combat Rifle	1d12 *	100/300	300	30	Dex	3
Combat Shotgun	3d4 *	10/30	300	12	Dex	3
Sniper Rifle	2d8	1,000/2,000	400	1	Dex	3
Void Carbine	2d6	100/300	400	10	Dex	4
Mag Pistol	2d6+2	100/300	400	6	Dex	4
Mag Rifle	2d8+2	300/600	500	10	Dex	4
Spike Thrower	3d8 *	20/40	600	15	Dex	4
Ranges are expressed in normal and maximum ranges. Firing at a target beyond normal range applies a -2 hit penalty. @ These weapons require two rounds of effort to reload * These weapons can use burst fire. A burst gains +2 to hit and damage and uses up three rounds of ammunition.						

Projectile Weaponry

Projectile weapons are by far the most common ranged weapons in human use. Even comparatively primitive worlds can fabricate and maintain such weaponry, and the damage a flying chunk of hot lead can do is often worse than what a clean burst of laser fire might produce. Almost any world of tech level 2 or higher can provide projectile ammunition. Most sophisticated modern ammunition works well in any atmosphere or in vacuum. Ammunition from less advanced worlds may not serve.

Crude pistols and muskets represent the rawest and most primitive forms of projectile weaponry, usually makeshift weapons improvised by criminals or the desperate. Some worlds lack the resources to make good projectile weaponry, and these guns are the best that they can manage. Reloading a crude pistol or a musket requires two rounds instead of one.

Revolvers are quite popular on frontier worlds, as the weapons are extremely reliable and can be repaired and manufactured even by primitive metallurgists. Some revolver variants are specially built to handle atmospheres that would destroy more fragile weapons.

Rifles are the mainstays of most tech level 2 armies and hunters, thanks to their superior range and power.

Shotguns are cheaper and more easily manufactured than rifles, and are popular weapons for home defense on the frontier. The statistics given are for shot ammunition. Slug rounds do 2d6 damage and have ranges of 50/75 meters.

Semi-automatic pistols trade some of the reliability of the revolver for a larger magazine size. They tend to be the favorite sidearm for locals on planets that lack the harsh conditions or uncertain maintenance opportunities of a frontier world.

Submachine guns take pistol ammunition but fire it at a high rate of speed. These weapons can fire in burst mode, gaining +2 to hit on the attack roll. Bursting uses up three rounds of ammunition, and cannot be done if fewer than three rounds are available.

Combat rifles are favored by the militaries of tech level 3 worlds, trading some of the often-unnecessary range and penetration of a conventional rifle for a larger ammunition capacity and burst fire capabilities. On more strait-laced worlds such military weaponry is often illegal for civilians to possess.

Combat shotguns are more complicated and temperamental versions of conventional shotguns. These weapons have substantially larger ammunition capacity and are capable of firing in burst mode. Combat shotguns can fire slug rounds just as normal shotguns.

Sniper rifles require a steady rest and a full round of aiming to be fired at best efficiency. If this is done, however, any hit inflicted by the rifle on an unsuspecting target requires an immediate Physical Effect save by the victim at a penalty equal to the sniper's Combat/Projectile skill. Failure indicates death.

Void carbines are specially designed for vacuum and zero-gee use, and have essentially no recoil. They fire gyrojet rounds that cannot penetrate ordinary ship equipment plating.

Mag weaponry involves the magnetic acceleration of metal flechettes, while **Spike throwers** are the shotgun equivalents of these weapons. Mag ammunition is packaged with integral power supplies, so no additional power cells are necessary to fire these weapons.

ENERGY WEAPONRY						
<i>Weapon</i>	<i>Damage</i>	<i>Range in Meters</i>	<i>Cost</i>	<i>Magazine</i>	<i>Attribute</i>	<i>Tech</i>
Laser Pistol	1d6	100/300	200	10	Dex	4
Laser Rifle	1d10 *	300/500	300	20	Dex	4
Thermal Pistol	2d6	25/50	300	5	Dex	4
Plasma Projector	2d8	50/100	400	6	Dex	4
Shear Rifle	2d8 *	100/300	600	10	Dex	5
Thunder Gun	2d10	100/300	1,000	6	Dex	5
Distortion Cannon	2d12	100/300	1,250	6	Dex	5
* These weapons can use burst fire. A burst gains +2 to hit and damage and uses up three rounds of ammunition.						

Energy Weaponry

While the heavy metal slugs and flechettes thrown by projectile weaponry tend to be more damaging, the lack of recoil for energy weapons tends to make them more accurate. All attacks with energy weapons gain +1 to hit.

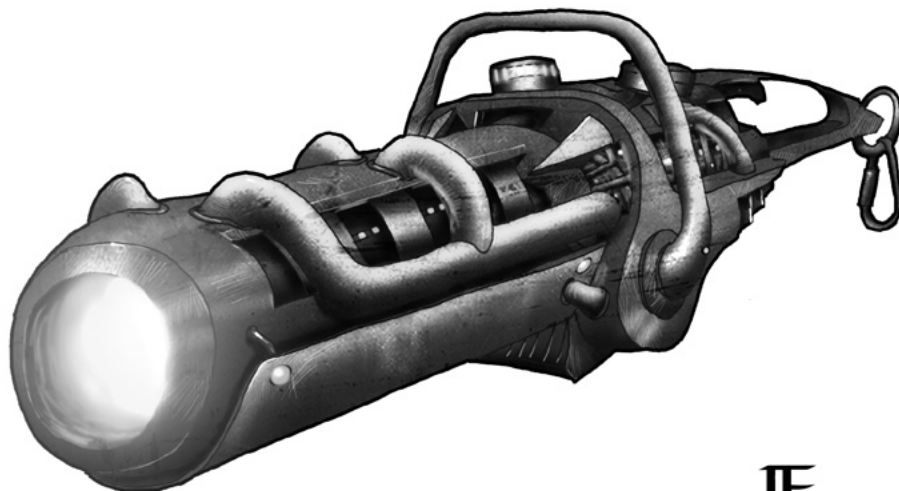
Energy weapons are very popular on more advanced worlds, as a soldier can carry far more ammunition in the form of Type A energy cells than they can carry bullets. Range and accuracy is also superior, though the infrastructure necessary for maintenance and repair of these weapons is substantially higher.

Pistol-sized energy weapons count as one item of encumbrance, while rifles, thunder guns, plasma projectors, and distortion cannons count as two items.

Laser pistols and **laser rifles** are the most common type of energy weapon. The phased multifrequency beam is capable of penetrating any ordinary mist or haze, but a thick cloud of thermally-resistant particulate matter such as ash or sand can seriously degrade the beam, applying up to a -4 penalty to hit and cutting ranges in half.

Thermal pistols and their larger, two-handed **plasma projector** cousins replace the beam of a laser with a small sphere of magnetically-shaped plasma. The spheres tend to dissipate at much shorter ranges than a laser beam, but do significantly more damage to targets within range and are not affected by ambient particulates.

Shear rifles are the product of a relatively few functioning pretech manufactories on those worlds that never entirely lost their pre-Silence industrial capacity. These weapons use miniaturized grav projectors to create dangerous repulsor fields inside a target, tearing



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the object apart along perfectly smooth planes. Shear rifles are perfectly silent in operation and ignore ambient particulates.

Thunder guns are named for the basso vibrations caused by their operation, a sound that can be felt as far as thirty meters away from an operator. This two-handed weapon uses grav plates to create rapid, randomized disruptions in a target that increase the chance of complete structural collapse. If a thunder gun user hits a target with an unmodified hit roll of 19 or 20, an extra 1d10 damage is rolled.

Distortion cannons are among the most sophisticated man-portable weapons designed before the Scream. These two-handed energy weapons rely on the same principle as does a spike drive, manipulating the underlying fabric of space to disrupt a target. Provided the wielder can see a target within range or accurately fix its location within one meter, the distortion cannon ignores up to one meter of solid cover between the gun and its target.

PSITECH WEAPONRY						
<i>Weapon</i>	<i>Damage</i>	<i>Range in Meters</i>	<i>Cost</i>	<i>Magazine</i>	<i>Attribute</i>	<i>Tech</i>
Mind Blade	Special	-	8,000	-	Wis/Con	5
Metafocal Grenade	2d6	10/30	100	-	Wis/Con	5
Metastasis Projector	2d6	25/50	8,000	-	Wis/Con	5
Telekinetic Sling	1d10	100/300	3,500	-	Wis/Con	5

Psitech Weaponry

Psitech weaponry is rare and often experimental in nature. The following items are simply some of the most commonly known varieties.

Mind blades usually take the form of intricately-fashioned gloves or stylized hilts, all fabricated with advanced psitech circuitry. Use of a mind blade requires at least 2 levels of the Telepathy discipline. In the hands of a trained psychic, the glove or hilt extends a translucent, meter-long “blade” of telepathic static. This blade has no tangible substance, but if brought into contact with a living creature, it does 1d4 points of damage, plus 1 point of damage per level of the wielder’s Telepathy discipline. Damage done takes the form of shock, disorientation, and ultimately unconsciousness; a mind blade will not kill a subject brought below 0 hit points by it. The static field created by mind blades suffers only minimal disruption by armor, and all attacks made with it are +3 to hit. Mind blades have no effect on robots or inanimate objects.

Metafocal Grenades rely on at least 2 levels of the Precognition discipline to function correctly. If thrown by a trained psychic, the explosions they cause never seem to cause injury to any creature or object the psychic wishes to spare. Metafocal grenades are thrown and inflict damage in the same way as normal grenades, albeit they use Combat/Psitech as the relevant skill.

Metastasis Projectors are an outgrowth of an unsuccessful attempt at the creation of a biopsionic tool for easy field treatment of injuries. The project was a failure, but the potential of the tool as a weapon was quickly recognized. The projector itself is a gauntlet-like device that emits an almost invisible beam of biopsionic force, and requires at least 2 levels of the Biopsionic discipline to activate. A target hit by a projector suffers the sudden eruption of cancerous tumors; multiple hits can cause immediate death, while even the slightest graze ensures that the target will experience a fatal metastatic onset within a few months or years. Only biopsionic healing or Tech Level 4 medical attention can cure damage inflicted by a projector or cure the creeping progress of a target’s cancers. Each hit from a metastasis projector adds 1 System Stress to the target, and the weapon has no effect on targets who already have a maximized System Stress. Unsurprisingly, metastasis projectors are outlawed on almost all worlds that are aware of their existence.

Telekinetic slings are forearm-mounted psitech arrays that amplify the natural abilities of a Telekinetic with at least 2 points in the discipline. Any solid object smaller than an apple can be launched by the sling, and the projectiles can turn corners, fly around obstacles, and otherwise defy inertia. Telekinetic slings ignore cover and grant +3 to hit, though completely obscured targets will be missed half the time even on a successful hit roll. A character can load and fire the weapon all in one round.

GUNNERY WEAPONS							
<i>Weapon</i>	<i>Damage</i>	<i>Range</i>	<i>Cost</i>	<i>Magazine</i>	<i>Enc.</i>	<i>Attribute</i>	<i>TL</i>
Heavy Machine Gun	3d6 #	500/2,000	5,000	10	3	Dex	3
Rocket Launcher	3d10	2,000/4,000	4,000	1	2	Dex	3
Railgun	3d8 #	1,000/2,000	8,000	20	*	Dex	4
Anti-Vehicle Laser	3d10	500/1,000	10,000	15	*	Dex	4
Hydra Array	3d6 #	2,000/4,000	20,000	10	*	Dex	4
Wheatcutter Belt	2d12	10/20	10,000	5	*	Dex	4
Vortex Cannon	5d12	1,000/2,000	75,000	5	*	Dex	5
* Vehicle-mounted or emplaced position only, # Can be fired to suppress							

Some weapons are simply too big to be comfortably used without a tripod, fixed support, or vehicle mounting. Others require specialized training in the use of heavy munitions. The weapons listed here all use the Combat/Gunnery skill to determine hit bonuses, and unless otherwise noted, all require some sort of support for firing.

Energy weapons use Type B power cells. Rocket launchers and hydra arrays use missiles as given on the exploration gear tables, while heavy machine guns and wheatcutter belts consume large amounts of standard ammunition.

Some heavy guns can be fired to *suppress*. Double the usual ammunition is fired in one round, and every target in front of the weapon that is not under hard cover is automatically hit for half normal damage. A successful Evasion or Luck saving throw eliminates this damage.

Gunnery Weapons

Heavy machine guns represent a large family of air- or water-cooled projectile weapons that are usually fed with belts of linked ammunition. HMGs require a vehicle mounting or emplaced firing position for best results. Attempting to shoot one without bedding it down properly on a tripod or other secure mount inflicts a -6 on all hit rolls and makes effective suppressive fire impossible. An HMG magazine contains enough ammunition for 10 rounds of firing, but each round of firing requires 25 credits worth of projectile ammunition.

Rocket launchers cover a wide variety of man-portable missile launchers of varying degrees of sophistication. The weapons are usually equipped with basic tracking sensors, but are of limited accuracy against human-sized targets. Rocket launchers take a -4 hit penalty against targets of human size or smaller. Unlike most Gunnery weapons, rocket launchers can be shoulder-fired without a prepared emplacement to support them.

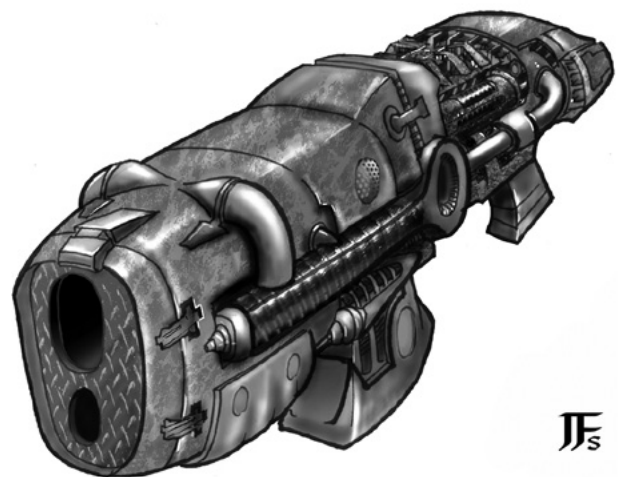
Railguns are simply scaled-up versions of personal mag rifles. They accelerate large metallic slugs along the weapon's barrel, creating a steady spray of hypervelocity rounds. Ammunition sufficient for one round of firing costs 50 credits.

Anti-vehicle lasers are less useful against soft targets, but excel at penetrating vehicle armor. Any 1s on the damage dice are rerolled when shooting at a hard armored target.

Hydra arrays sequence a number of missile launchers to fire at once. The gunner designates up to three targets and can then make three rolls to hit divided among them. Each successful hit on a target allows the gunner to roll damage once, but only the highest damage roll is applied to the target. A round of Hydra missile fire costs 150 credits.

Wheatcutter belts are one of several different antipersonnel measures often installed on gravtanks and other fighting vehicles. When triggered, a belt of explosives fires off a scything blast of shrapnel on any side of the vehicle. All creatures within 10 meters of that side of the vehicle must make an Evasion save for half damage. Those within 20 meters take half damage, and can make an Evasion save to take none at all. Wheatcutter belts do not ignore a vehicle's Armor like other Gunnery weapons do. Reloading a wheatcutter belt costs 200 credits per round.

Vortex cannons use controlled gravitic shear planes to cause a target to simply fall apart into component fragments. The cannons are silent in operation, but so heavy that they can only be mounted on gravtanks and other similar dedicated fighting vehicles.



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EXPLORATION GEAR			
<i>Item</i>	<i>Cost</i>	<i>Enc</i>	<i>Tech</i>
Ammunition, 20 rounds	10	1	2
Ammunition, missile	50	1	3
Atmofilter	100	1	4
Backpack	5/50	1/*	1/4
Binoculars	20/200	1	3/4
Climbing harness	50	1	3
Comm server	1,000	3	4
Glowbug	5	*	3
Grapnel launcher	200	1	3
Grav chute	300/1,000	1	4/5
Low-light goggles	200	1	3
Navcomp	500	1	4
Pressure tent	100	4	3
Rations, 1 day	5	1	1
Rope, 20 meters	4/40	2/1	1/4
Scout report	200	*	4
Solar recharger	500	3	4
Survey scanner	250	1	4
Survival kit	60	1	4
Telescoping pole	10	1	4
Thermal flare	5	*	3
Trade goods	50	1	4
Trade metals	10	1	4
Vacc fresher	400	1	4
Vacc suit	100	2	4
Vacc skin	1,000	1	5
* These items weigh a negligible amount.			

Exploration Gear

Ammunition: A few worlds are too primitive or too resource-poor to manufacture ammunition, but the vast majority of worlds provide cartridges in almost every conceivable caliber and make. Most local gunsmiths can load ammunition to any specification required by a buyer.

Ammunition, missile: Some characters might have reason to pack along a man-portable rocket launcher, or have one mounted on their favorite gravcar. Heavy weapons and their ammunition are usually outlawed for civilians on most worlds, but this price is for those rare locales where missiles can be bought freely.

Atmofilter: This face mask can filter out most atmospheric toxins. Attaching a standard vacc suit oxygen bottle to a belt-mounted feed will also supply a breathable atmosphere for up to six hours.

Backpack: Tech level 4 versions of this item are effectively without encumbrance, albeit they cost 50 credits. A worn backpack counts as a readied item, though objects stowed inside it still require the usual round to dig free.

Binoculars: Standard 7x50 binoculars. Tech level 4 versions are available that have integral low-light optics and up to 25x150 power. TL 4 binocs cost 200 credits and require a Type A power cell for up to a week of regular usage.

Climbing harness: A collection of straps, ropes, pitons, and other climbing aids that grant a +2 bonus on any climbing skill test. Using a climbing harness is noisy, and any Stealth skill checks while climbing with one suffer a -2 penalty.

Comm server: A powerful base unit for providing communications without involving or requiring comsats. The server provides service between compads within 30 kilometers of the unit. Server usage can be locked to specific compads, and all transmissions are heavily encrypted.

Glowbug: A palm-sized disc that can adhere to any non-porous surface. When turned on, it emits a white light, illuminating everything within ten meters for twenty-four hours. A hundred glowbugs can be recharged off a single Type A power cell.

Grapnel launcher: This launcher fires a rope up to forty meters. The rope can bear up to a metric ton of weight, though extremely heavy weights or a precarious hit can cause the grapnel to pull free. A Type A power cell fuels six shots from a grapnel launcher.

Grav chute: Semi-experimental tech, the grav chute tests the limits of tech level 4 gravitic control. When this cylinder is strapped to a person or object and activated, it smoothly modulates falling speeds to a sedate 1 meter/second for up to 1000 meters. The chute can slow up to 300 kilos of weight, but it fails catastrophically 10% of the time. Tech level 5 versions never fail, operate twice as long, and cost 1,000 credits. Both versions burn out after one use.

Low-light goggles: These goggles provide a monochrome but serviceable view out to the wearer's normal visual distance, provided that there is any illumination available at all. A Type A power cell will operate these goggles for a week.

Navcomp: A combination of low-tech compasses, automappers, astronomic charts, and gyroscopes packed into a flat, one-kilo case. A character with a navcomp will never get lost on worlds with GPS satellites. They can also make a crude but serviceable automatic map of all buildings or landscapes they travel through. Other terrestrial navigation skill checks are made at a +2 bonus.

Pressure tent: This tent maintains a breathable atmosphere, tolerable temperature and serviceable sleeping quarters for up to five very friendly occupants. Advanced filtration and cracking tech allows a single standard vacc suit oxygen tank to provide breathable

air for the occupants for up to 24 hours. The tent requires a Type A power cell for each day in which this filter is employed.

Rations: Dried or otherwise preserved foodstuffs sufficient for one day. If water is not otherwise available, add another item's worth of encumbrance for the water necessary for a person's daily needs.

Rope: Light and sturdy. A metatool can be used to cut and join the synthetics used in tech level 4 rope, which counts as one encumbrance item per 40 meters and costs 40 credits.

Scout report: A collation of survey scans and merchant reports on a particular lost world or isolated colony. Scouting reports are available for all but the most unknown worlds and provide maps, basic information, and the equivalent of Culture/World 0 skill for possessors. It takes at least ten minutes of searching to make an attempt on any particular Culture skill check, however, and no language proficiency is given.

Solar recharger: This recharger unfolds into a 2 meter by 2 meter square field of solar cells. Granted a primary star of roughly Earth-like intensity, it can recharge one Type A power cell per day.

Survey scanner: A multipurpose scanner that can take atmospheric and gravitic readings, provide basic chemical analysis of samples of up to one cubic centimeter in size, and record up to two hundred hours of video information or ten times that amount of audio. Science skill checks are necessary for any but the most basic analysis.

Survival kit: A standard belt-worn kit with fire lighter, water filter, three thermal flares, knife, thermal blanket, a brightly-colored 3 x 3 meter waterproof tarp, a glowbug, and a radio beacon that can transmit a distress signal up to fifty kilometers for twenty-four hours on the included Type A power cell. Survival kits sold on a particular world will usually also include a small booklet on specific dangers or edible organics. Possession of a survival kit grants a +2 to all relevant Survival skill checks, assuming its contents are helpful on a given planet. Survival kits are well-organized, and count as only one item for encumbrance purposes.

Telescoping pole: Retracting to a 30-centimeter baton, this pole extends and locks into a 3.048-meter extension that can bear as much as a thousand kilograms of weight. In a pinch, it can also serve as a club.

Thermal flare: If triggered in one mode, the flare burns with a bright white light for two hours, illuminating up to twenty meters around the holder. If the guidance fins are extended first, the flare launches up to 200 meters and explodes in a bright white flash. A launched flare does 1d6 damage to anyone it hits, though the clumsy flight gives a -4 penalty on any attempts to hit something with it.

Trade goods: Glowbugs, ceramic fire lighters, antibiotics, ceraplast tools, and the other fruits of a tech level 4 civilization that might be valuable on more primitive worlds. A kilo of trade goods can usually be traded for at least a hundred credits worth of local products on more primitive worlds that are not well-served by interstellar merchants. The profit margin shrinks rapidly as interstellar trade

Device Not Recognized

Before the Scream, sheer necessity imposed certain standardized data formats, interface standards, and communications protocols on far-flung humanity. While individual devices varied, the need to serve such a wide market forced at least minimal compatibility among a wide range of hardware and software.

In the centuries of the Silence, this devotion to universal protocols has waned. Some worlds have abandoned the old standards and gone with local protocols that might be more efficient for their purposes but render their comm gear and hardware incompatible with that of outsiders. For some, this is intentional.

becomes more common, and there is always the difficulty of finding local products that are actually worth a merchant's journey.

Trade metals: The fruit of common tech level 4 asteroid mining, trade metals include gold, platinum, artificial gemstones, and other substances precious on many lost worlds and trivially valuable on spacefaring ones. A kilo worth of trade metals can be exchanged for as much as a thousand credits worth of local products on metal-poor worlds isolated from interstellar trade. Markets flood rapidly, however, and it usually doesn't take more than a few merchant trips to persuade the locals to demand trade goods or credits.

Vacc fresher: This three-kilo tube filters and compresses atmosphere to refill vacc suit oxygen tanks. It can extract oxygen from any atmosphere which contains it, even in the form of carbon dioxide. Refilling a standard vacc suit tank requires ten minutes of operation and consumes one Type A power cell. Most vacc freshers are also equipped with an emergency hand crank power source, though it requires at least two hours of cranking to charge.

Vacc suit: The standard tech level 4 vacc suit is designed to allow the wearer to survive in both hard vacuum and on most inhospitable planetary surfaces. The suit protects against ordinary levels of cosmic radiation and provides a temperature-controlled atmosphere. Vacc suits are equipped with radios that have a ten-kilometer range. A vacc suit oxygen tank weighs 1 encumbrance, included with the weight of the suit, and provides oxygen for six hours.

Vacc suits are cumbersome, and apply a -2 penalty to all hit rolls and skill checks that require movement. Those with Culture/Spacer or Exosuit skills at 0 or higher can ignore this penalty. No armor can be worn with a vacc suit, though the suit itself grants AC 7 to its wearers. A vacc suit requires one Type A power cell for each twelve hours of operation.

Vacc suits have a self-healing exterior that can seal the puncture wounds caused by bullets, arrows, or energy beams, but a strike from an edged weapon can overwhelm the repair system. If a character with 10 or fewer hit points is struck by an edged weapon, there is a 50% chance the suit is torn. Suits are equipped with emergency repair patches, but it requires a turn's action to apply one. Exposure to hard vacuum does 1d20 damage after the first round of exposure, with a Physical Effect save for half.

Vacc skin: A more advanced tech level 5 version of the vacc suit, this skin-tight suit can be worn as a readied item in conjunction with armor, though it grants no armor class bonus itself. It requires no oxygen tank, automatically cracking and recycling the wearer's respiration, and can even recycle the wearer's bodily waste into drinkable water if necessary. Vacc skins apply no penalty to hit rolls or skill checks for wearers. It suffers tears in the same way as a normal vacc suit, and requires a Type A power cell for each six hours of operation.

TOOLS AND MEDICINE			
<i>Item</i>	<i>Cost</i>	<i>Enc</i>	<i>Tech</i>
Bioscanner	300	1	4
Lazarus patch	30	1	4
Instapanel	50	1	4
Medkit	100	2	4
Metatool	200	1	4
Power cell, Type A	10	1#	4
Power cell, type B	100	1	4
Tailored Antiallergens	5	*	4
Telekinetic generator	500	2	4
Toolkit/Astronautic	500	3	4
Toolkit/Postech	300	3	4
Toolkit/Pretech	1,000	1	5
* These items weigh a negligible amount. # Type A power cells can be bundled, up to six in a single encumbrance item.			

Tools and Medicines

Bioscanner: While an untrained user can use this tool to discern internal bleeding, gross physical distress, or toxins in a plant or animal, it requires Tech/Medical to use this tool to its fullest. It allows for a full spectrum of diagnosis and DNA sequencing to be done on subjects in a matter of minutes. One Type A power cell will power it for up to twenty-four hours of steady usage.

Lazarus patch: A vital tool for adventurers, the lazarus patch is a heavy compress laced with antibiotics, coagulants, system stabilizers, plasma, and a one-shot diagnostic suite. If the patch is applied to a character that has fallen to 0 hit points, the user can make a Tech/Medical skill check against difficulty 6 to stabilize the subject. The more time between injury and application, the less chance the patch has to work. Each round after the first, an additional -1 penalty is applied to the skill check. The patch is no use after six rounds. If the medic fails the first skill check, they can keep trying the check once per round until the victim is revived or time runs out.

Lazarus patches are no use on victims that have died of disease, poison, or have been mangled beyond surgical powers of repair. Only one patch can be applied to a victim. Revived victims are critically wounded until sufficient medical help has been tendered; see the Systems chapter for details.

Instapanel: In its compressed form, an instapanel is a two-kilo cube of ceraplast five centimeters on a side. When a Type A power cell is inserted in the cube's side, it immediately expands to an opaque, waterproof ceraplast sheet 2 meters on each side and a centimeter thick. Five minutes later the ceraplast hardens into a tough, rigid shape, but until then it can be folded or bent by hand. Instapanel can be bonded to one another with a metatool or a postech toolkit. Breaking an instapanel requires inflicting at least twelve points of damage on it.

Medkit: Containing a broad supply of pharmaceuticals, spray bandages, glue sutures, and a succinct handbook of injury care, the medkit is designed for handling sudden and drastic injuries. It grants any user a +1 bonus on all Tech/Medical skill tests for treating wounds, poisons, or diseases. It also contains all the necessary tools for providing long-term recuperative care for critically injured characters. After each day of granting long-term recuperative care, roll 2d6 per patient treated; on a 12, the kit has run out of some vital pharmaceutical and has become useless.

Metatool: This wrist-mounted housing contains a myriad of small, useful tools designed to handle the widest possible range of technical needs. While a metatool is too limited to handle major jobs, it is usually sufficient to manage jury-rigged repairs and temporary fixes until the tech has time to apply a larger wrench to the problem.

Power cells: One of the few standardized artifacts inherited from before the Silence, power cells are small cylindrical objects designed to take and hold electrical charges. Type A cells are usually used for personal equipment, and type B cells for vehicles and heavy gear. The engineering for the cells is substantially different, and they cannot be exchanged or recharge each other without a trained tech's modifications or a converter unit. Power cells can be recharged off a ship's power plant or other grid. Recharging requires 30 minutes for a type A cell or 24 for a type B cell.

Tailored Antiallergens: A dose of tailored antiallergens can be used to render a local world's organics largely edible by humans. While many worlds have been seeded with Terran life forms or have produced organics that are edible by humans, others are toxic without the appropriate chemical augmentation. A dose of these antiallergens lasts for twenty-four hours.

Telekinetic generator: While this device assumes the presence of a trained telekinetic, it isn't strictly psitech, as its operation is quite simple. A telekinetic user pushes a resistance bar within the generator, causing a flow of electricity to recharge an attached power cell. The psychic must keep up the telekinetic force for at least half an hour, thus requiring the mastery of at least one level of telekinesis. If level 2 telekinesis has been mastered, only ten minutes of exertion is necessary. In an emergency, a character with at least Strength 10 can operate the generator manually, though they need to succeed on a difficulty 8 Athletics skill check modified by Constitution in order to keep up the pace for an hour. Failure means that the character must rest for at least an hour before trying again. The generator can charge one Type A power cell at a time.

Toolkits: Containing a wide range of necessary tools for a particular skill set, toolkits can handle most any job that doesn't require a full-scale shop or lab. Most toolkits are specialized, and not terribly useful when turned towards other purposes. It might be possible to use one in place of another for simple jobs, but even that is liable to suffer at least a -1 penalty on the skill check.

PERSONAL ACCESSORIES			
<i>Item</i>	<i>Cost</i>	<i>Enc</i>	<i>Tech</i>
Argus web	200	1	4
Compad	100	*	4
Dataslab	300	1	4
Dermofilm	100	*	4
Grav harness	5,000	3	5
Holo unit	50	1	4
Portabox	50	1	4
Translator torc	200	*	4
* These items weigh a negligible amount.			

Personal Accessories

Argus web: A set of almost invisible cameras and microphones worn by a subject. The web captures video and audio of the wearer's surroundings for up to twenty-four hours before it must be downloaded onto a dataslab or wiped to make room for more. Noticing an argus web on a person requires a difficulty 12 Perception skill check or a very close physical search.

Compad: A standard handheld communicator, capable of everything a modern cellular phone can accomplish. In the absence of a modern comm grid, it can reach other compads within one kilometer.

Dataslab: A palm-sized computing device that can unfold into a thin slab roughly one-third of a meter on a side. It can perform all the functions of a handheld computer and can communicate wirelessly with nearby devices.

Dermofilm: Originally intended for temporary tattoos and markings, dermofilms can also be shaped to assist in disguise usage. They remain permanently in place until removed with a strong alcohol solvent.

Grav harness: This advanced gravitic harness allows clumsy flight at a rate of 20 meters per round. It requires a Type B power cell to fuel it, and the miniaturized electronics are rapacious, consuming the cell in five minutes of operation. It can lift up to 200 kilos.

Holo unit: A palm-sized holoprojector capable of replaying audio, video, or holographic recordings. The device operates for 24 hours on one Type A power cell, if a fixed power source is not available.

Portabox: A small cube of ceraplast attached to an electronic keycard. When a Type A power cell is inserted, the portabox immediately unfolds into a rigid locker with 1.5 x 1 x 1 meter dimensions. The portabox is air-tight and has a simple electronic lock which can only be opened with the keycard or a successful difficulty 8 Security skill check. Failing the check will cause the lock to short-circuit and seal the box until it can be cut open with a metatool or broken open with twenty points of damage.

Translator torc: Each translator torc is keyed for two languages, and will automatically translate what it hears in one into speech in the other. The translations are eccentric in many cases, and there is always a several-second delay between each statement and its translation. Any attempts to exert social skills or Charisma through a translator torc suffer a -2 skill check penalty. The torc is powered by one Type A power cell, which lasts for one week of use.



LIFESTYLE	
<i>Lifestyle Quality</i>	<i>Cost / day</i>
Slum	3
Poor	10
Common	15
Good	25
Elite	100
Peerless	1,000

Lifestyle Costs

Even adventurers need to eat and sleep. The costs given are for living a particular lifestyle for one day, and includes food, shelter, and commensurate living expenses. Unless the characters have some home base of their own, these costs can add up rapidly. Costs are roughly the same regardless of tech level; what constitutes a “peerless” lifestyle of indulgence on a tech level 1 world might be barely Common on a tech level 4 world, but it would require far more local resources to enable.

EMPLOYEES	
<i>Employee</i>	<i>Wages / day</i>
Artist	10/20/100
Computer programmer	10/25/100
Doctor	50/100/400
Guard	10/20/150
Lawyer	10/25/400
Prostitute	2/10/100
Psychic	100 per level
Technician/Postech	10/25/100
Technician/Pretech	50/100/500
Unskilled laborer	10

Employees

Employees can be hired at the given rate. Those with skill level 0 in the appropriate skill cost the smallest sum, while those level skill level 1 cost more and the rare skill level 2 experts cost most of all. Employees bring their own basic tools but may require more sophisticated facilities to be provided. Employees will not normally risk their lives or safety for their employer outside the line of immediate duty. Employees will not normally travel offworld with the characters.

Prices may vary substantially on individual worlds, depending on the local tech level or existence of a psychic academy. The table assumes a tech level 4 world where psychic training is legal and available.

SERVICES	
<i>Service</i>	<i>Cost</i>
Bribe, minor crime forgiveness	50
Bribe, major crime forgiveness	500
Bribe, capital crime forgiveness	5,000
Forged identity papers	500
Intensive medical care	200/day
Mail message, interstellar	1/hex
Mass transit weekly pass	2
Public records research, per day	5
Rent a groundcar	15/day
Starship passage, steerage	500/hex
Starship passage, good	1,000/hex
Starship cargo shipping, per kilo	25/hex
Wild party	100/person

Services

Listed are a selection of services that many adventurers find useful from time to time. All costs assume average quality workers or services and requests of ordinary difficulty.

Starship passage and shipping costs assume that normal traffic exists between the origin and destination. Reaching a lost world or an isolated planet might require chartering a ship, with costs that begin at several thousand credits per day and rise rapidly from there.

CYBERWARE				
<i>Item</i>	<i>Cost</i>	<i>System Strain</i>	<i>Tech Level</i>	<i>Function</i>
Adrenal Suppression Pump	30,000	1	4	<i>Eliminates emotion and improves initiative</i>
Body Arsenal Array	10,000	1	4	<i>Provides retractable body weaponry</i>
Eelskin Capacitor Mesh	25,000	1	4	<i>Allows bare-handed hacking and electrical shocks</i>
Ghost Talker Transceiver	15,000	1	4	<i>Integral compad with audiovisual transmission</i>
Holdout Cavity	10,000	1	4	<i>Shielded body cavity for holdout storage</i>
Induced Coma Trigger	20,000	1	4	<i>Feigns death and halts bodily processes for up to two weeks</i>
Pressure Sheathing	15,000	1	4	<i>Integral emergency vacc suit</i>
Prosthetic Limb	2,500	1	4	<i>Replaces a limb lost to misadventure</i>
Revenant Wiring	50,000	3	5	<i>Keeps the user fighting even after they're dead</i>
Slowtime Window	30,000	2	5	<i>Prevents surprise and speeds up the user's cogitation</i>
Stabilization Overrides	25,000	2	4	<i>Automatically stabilizes a mortally-wounded user</i>
Twitchlock Actuators	30,000	2	4	<i>Allows brief moments of hyper-precise accuracy</i>

Cyberware

Postech medical science and neural interface technology are sophisticated enough to meld metal and flesh into a coherent whole. The creation of advanced cyberware is not beyond the theoretical capability of tech level 4 societies, and pretech worlds can produce cyberware of such sophistication as to blur the lines between organism and artifice.

Yet cyberware is rarely available on most worlds, even those with the nominal technology level to support it. The advantages that cyberware can give a user are great, but the cost of building, fitting, and implanting these devices is huge compared to simply buying a handheld device to do the same function. There are few buyers for a 15,000 credit ghost talker implant when a compad retails for a hundred credits.

The market that does exist is largely for those few elite operatives and dignitaries who are willing to pay exorbitant sums for the smallest advantage. Most cyberware is custom-built for its users, and it can be an adventure in itself to find a lab capable of manufacturing an augmentation and successfully implanting it. Some worlds have industrialized the production of cyberware, however, making it much cheaper and in much wider circulation. Even then, these worlds rarely export much cyberware due to the heavy infrastructure necessary to fit and implant the wares. Those who want the tech will have to find such planets and do their own negotiations there.

Aside from the difficulties of cost and scarcity, cyberware also taxes the wearer's body. Each piece of cyberware comes with a System Strain cost, permanently adding that many points of System Strain to the user's total. These points can never be lost unless the system is surgically removed. This permanent System Strain decreases the amount of biopsionic healing a character can sustain and can limit the effectiveness of pretech healing and stimulant drugs.

Some cyberware has an activation cost in System Strain. If a cost would push the character's System Strain above their Constitution

score, they cannot trigger the cyberware; their body just can't handle the strain until it has had time to recover.

Adrenal Suppression Pump: These endocrine pumps neutralize numerous brain chemicals in the user when activated while simultaneously exciting the user's perceptual centers. This combination produces a cold, dispassionate situational awareness that grants the user +2 on initiative rolls when the system is engaged. Most systems have built-in safety overrides to prevent psychological addiction and brain damage, allowing the unit to be used for no more than an hour each day. The user takes a -2 penalty on all social skill checks while the unit is active, and it requires five rounds to either activate or deactivate it.

Body Arsenal Array: Some personnel need to be armed at all times without giving any indication of such. Improvised weaponry and conventional holdout weapons are useful enough against soft targets, but disabling a target in powered armor requires more. The exact details of a body arsenal vary with each user, but most involve kinetic spike knuckles, retractable palm spikes, ceraplast bone spurs, or other heavy hardware. This arsenal grants the user a +1 damage bonus on all Unarmed attacks as well as allowing them to affect targets not normally injured by Unarmed attacks. Retracted body arsenals can be detected only by a medical examination.

Eelskin Capacitor Mesh: A hair-fine mesh of almost imperceptible wiring along the user's palms and fingers allow them to trigger brief, controlled bursts of electrical energy at targets within five meters. Rolled as an Unarmed attack, it does 2d4 non-lethal damage to those struck. In its intended use, it also allows the user to override and disable most electronic locks and security systems with a successful Security skill check. Both triggering a burst and hacking a security system tax the user's biology; one System Strain point is gained with each attack or skill check.

Ghost Talker Transceiver: Some people simply cannot afford to be out of contact at any time, under any circumstances. Those people find use for the microfine web of radio wiring and optical

augmentation that make up the ghost talker. These units act as a built-in compad for the user and allow for reception and transmission of audio and visual recordings, the latter playing in an inset window in the user's field of vision. If the unit is operating outside of a standard comm grid, it has a transmission range of twenty kilometers and a reception range of one hundred. Ghost talker users can transmit basic visual diagrams and images to each other, as well as optical recordings.

Holdout Cavity: Usually implanted somewhere in the torso, a holdout cavity is a small recess shaped into the wearer's body and designed to be overlooked by most standard forms of medical or security scanning. It automatically defeats a security inspection that uses less than tech level 4 scanners, and even advanced tech requires careful personal inspection to have a chance of revealing it. The cavity can hold an object up to the size of a pistol and is opened and shut by the user's mental command.

Induced Coma Trigger: A series of implants are wired to the user's brain stem, allowing them to trigger an induced therapeutic coma at a mental command. The user appears dead to anything short of a medical inspection, and has no need of respiration, food, or water while the coma is in effect. The user does not heal while in a coma, but any diseases or poisons also halt progression. The user determines how long the coma is to last before triggering it, and is unconscious for its duration. A character can survive in a coma up to two weeks before needing to regain consciousness for as long as they were in the coma.

Pressure Sheathing: Occasionally purchased by workers in hard vacuum or other hostile environments, pressure sheathing integrates an ultrathin pressure membrane with the user's dermis and emergency film sealants that trigger at the user's mental command. The pressure sheathing serves as an emergency vacc suit with an integral oxygen supply and temperature regulators that can sustain them for up to thirty minutes. A pressure sheath needs 48 hours to regain structural integrity and power after triggering. A pressure sheath can be detected by a medical examination, but not by less specific inspection.

Prosthetic Limb: Hands, feet, arms, legs, eyes, and numerous internal organs can be replicated by postech medical science. These prosthetics can provide a good approximation of the sense of touch, and are usually impossible to distinguish from ordinary limbs without close inspection. Pretech-level worlds tend to prefer actually regenerating lost limbs, but those with access only to ordinary frontier levels of tech have reason to be grateful to prosthetics.

Revenant Wiring: One of the more grotesque results of late pretech augmentation research, revenant wiring permeates the user's body with a web of supplementary limb actuators and sensor clusters. In combat, the user may designate up to a half-dozen targets to the system's braked micro-AI. If the user goes unconscious or is killed, the micro-AI will engage the limb actuators to keep fighting, even if the user is nothing more than a ragged mass of mangled tissue. The micro-AI is not brilliant, but it is capable of negotiating most terrain and dealing with physical impediments to killing the designated targets. The actuators have power to keep operating

for 3d4 rounds, or until the wearer is reduced to -25 hit points, whichever comes first. The stress produced by revenant wiring makes it much more difficult to revive a downed user with lazarus patches or biopsonics; all revivification chances are half normal.

Slowtime Window: A piece of cutting-edge pretech cyberware, the slowtime window was installed in crisis responders and others reliant on split-second decision making. When engaged, the implants accelerate the user's cogitation speed by more than three thousand percent. While there is no corresponding acceleration of the user's physical reflexes, they have time to process the situation and take in its details. A person who triggers a slowtime window cannot be surprised; they always roll initiative as normal no matter how unexpected the attacker. This brain acceleration is highly stressful on the tissues, however, and one point of System Strain is gained each time the slowtime window is engaged.

Stabilization Overrides: An intricate interweaving of microcapillaries and backup organs is implanted in the subject's torso and spinal column. These overrides can stabilize the user when severe physical trauma would otherwise kill them. A user reduced to 0 hit points is automatically stabilized, as if a lazarus patch had been successfully applied to them. Stabilization overrides tend to interfere with the ordinary operation of the user's organs, however, and the wearer's Constitution modifier is lowered by 1, with all the attendant consequences in loss of maximum hit points. Stabilization overrides cannot save a person that could not be saved by a lazarus patch.

Twitchlock Actuators: Neural override fibers are woven into the user's hands and arms and linked to a perceptual modulator implanted at the base of the user's brain stem. When presented with a direct exercise of hand-eye coordination, the twitchlock can be engaged to produce superhuman accuracy and precision. Any attack roll or skill check reliant chiefly on manual dexterity or aim can be rerolled, though the power surge inflicts one point of System Strain on the user. A given roll can only be rerolled once with this cyberware. While the twitchlock allows superhuman accuracy when engaged, the overrides fuzz ordinary nerve impulses and reduce the user's Dexterity modifier by 1.



VEHICLES						
<i>Vehicle</i>	<i>Cost</i>	<i>Speed</i>	<i>Armor</i>	<i>HP</i>	<i>Crew</i>	<i>TL</i>
Motorcycle	1,000	1	4	10	1	3
Groundcar	5,000	0	6	30	5	3
Hovercycle	5,000	2	3	10	1	4
Gravcar	20,000	2	4	25	5	4
ATV Explorer	15,000	0	8	40	8	4
Helicopter	25,000	3	6	20	6	3
Atmoflyer	30,000	4	8	25	6	3
Gravflyer	40,000	5	8	25	6	4
Gravtank	200,000	2	*	50	3	5
* Gravtanks cannot normally be damaged by anything that doesn't require Combat/Gunnery to fire.						

Vehicles are generally powered by type B power cells on tech level 4 worlds. More primitive planets are usually forced to use some form of biofuel unless they're fortunate enough to have a supply of fossil fuels. Vehicles require one cell or one refueling per six hours of operation.

Vehicles are generally limited to reasonably flat, dry terrain. Grav vehicles such as hovercycles can ignore rough terrain and calm water, as can ATV explorers. Most grav vehicles cannot climb more than 10 meters above the ground or water; gravflyers are purpose-designed aircraft capable of hovering and VTOL.

Speed is an abstract measure of the vehicle's speed and agility. When vehicles chase each other, the opposing vehicle's Speed should be applied as a penalty to Vehicle skill checks to close or escape. Speed may also be used as a modifier when attempting difficult maneuvers.

Armor is subtracted from all weapon damage done to the vehicle. Armor does not apply to damage done by weaponry that requires Combat/Gunnery to fire; heavy weaponry is often designed to take out vehicles. Actually hitting the vehicle is automatic if the vehicle is stationary and within 30 feet. Hitting a vehicle from beyond that range requires an attack against AC 10. If the vehicle is moving, subtract its Speed from the hit roll, and if the attacker is in a moving vehicle as well, also subtract that conveyance's Speed.

Hit Points indicate the amount of damage a vehicle can take before it is destroyed. Speed is reduced by half when the vehicle is at half hit points, and flying vehicles must land at the first opportunity. A vehicle reduced to zero hit points forces all crew and passengers to

make Luck saving throws. Failure means that the passenger takes the vehicle's maximum hit points in damage, while success reduces the damage by half.

Crew gives the maximum number of vehicle occupants. For the listed vehicles, only one crew member is actually necessary to drive or pilot the vehicle, though additional crew members may be required to fire or load weapons.

Tech Level indicates the minimum tech level for constructing the vehicle. Vehicles can be built at higher tech levels for better performance, but most worlds prefer to simply build more advanced vehicles.

Vehicle Weaponry

Most vehicles larger than a motorcycle or hovercycle can mount some kind of integral weapon. Groundcars and gravcars can mount one weapon, while ATVs, helicopters, atmoflyers, and gravflyers can mount two. Gravtanks are specialized weapons platforms, and can mount six.

Gunnery weapons take up more space than ordinary Projectile or Energy weapons, and each such system takes up the space of two lesser guns.

Every weapon requires its own gunner, and all mounted weapons use Combat/Gunnery as the firing skill, regardless of the weapon's original type. Gravtanks are equipped with advanced targeting systems, and all of their weapons can be targeted and fired by one gunner.

Starships

Starships are the lifeblood of interstellar civilization. With the collapse of the jump gates, only ships equipped with spike drives can cross the endless gulfs of space to join the flickering worlds of mankind. Without the technology to build and maintain starships, a world is utterly dependent upon the roaming merchants and chance stellar travellers that might come their way.

The essential element of a starship is its spike drive. Invented in 2108 by Dr. Tiberius Crohn, the spike drive uses an integrated fusion power plant to bubble a ship upward through ever-increasing dimensional frequencies. By riding the energy created by the shear of dimensional interfaces, the ship can be propelled at faster-than-light velocities through universes that fail to respect the ordinary laws of physics.

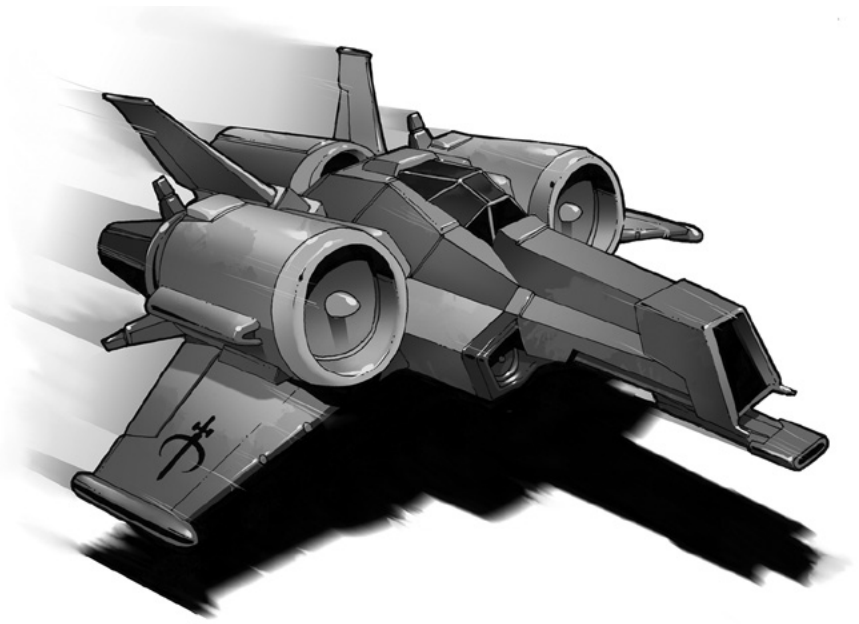
The stronger and more efficient a ship's spike drive, the more powerful a shear it can surf and the faster it can travel. Still, this travel is not without its risks. The interfaces between the higher dimensions are rife with ravenous energies and vortices of destructive force. An incautious navigator can pilot a ship straight into oblivion by attempting to surf a shear plane too energetic for the ship's spike drive to control.

These dangers are compounded by the fact that the extradimensional currents shift slowly over time in patterns that appear to be utterly unpredictable. An interstitial vortex can steadily encroach on a regular commerce line until it becomes suicide to take a route that had been safe for centuries, or a planar storm can clear up suddenly to open a route to a formerly lost world.

"Drilling out" into higher dimensions is only possible at the rim of a solar system. The gravitic step differential there is necessary to boost a ship completely into the higher dimensions. Once a ship has "drilled out", it must for the same reason seek another solar system in order to successfully "drill in" and return to mundane space. Because of this necessity, it is impossible to use a spike drive to travel into deep space. All travel must be to and from the edges of solar systems.

Within a system, a starship can still use its spike drive to maneuver, though the ship is unable to drill out completely. This "phased" travel modulates the ship's dimensional frequency, increasing its velocity and making it partially intangible to mundane perils. Even so, impacts as large as a fighter ship or shuttle can cause damage to an unwary navigator's ship.

In the years before the Scream, steady traffic among worlds provided an opportunity to map shifting dimensional routes. Navigators



were expected to relay their recent course soundings and updated rutters of safe paths were compiled and distributed to traders. So long as steady traffic continued, these maps would remain up to date and reliable.

With the Scream and the collapse of interstellar trade, it has been centuries in some cases between visits to certain frontier worlds. The ancient rutters are now almost useless in their outdated information, and navigators are forced to blaze new trails through short drills between neighboring stars, feeling their way slowly through long-lost paths.

Many frontier worlds have preserved or redeveloped the industries necessary to fabricate spike drives. While the workmanship does not compare with the pretech spike drives in common service before the Scream, these worlds can build and maintain scores or even hundreds of spaceships. They may not fly with the speed or surety of their ancestors, but they can reach neighboring worlds and revive the old bonds of trade and communication.

Even the simplest starship can require a multi-million credit investment to build and maintain. Those captains who are not in the service of a planetary defense force or star empire's navy are constantly pressed to earn the credits necessary to keep their ship flying. This tends to give independent captains a somewhat questionable reputation, as many of them are perfectly willing to perform less than strictly legal work in service of their ship's needs.

During the course of their adventures, it is almost certain that the player characters will come to either own or use starships regularly. The following rules provide the basics for defining and designing these ships. Rules for flying and fighting them appear in the Systems chapter.

Starship design begins with the selection of a hull. Hulls are divided into one of four classes: fighters, frigates, cruisers, and capital hulls. Small hulls are unable to mount certain complex fittings and guns, while larger hulls tend to be much more expensive to build and require much more sophisticated shipyard facilities. Every hull is rated by class and several different categories. The table provided gives the details of a number of standard tech level 4 hulls that can be commissioned at most large orbital shipyards, if appropriate permissions are obtained.

Speed indicates the general acceleration capabilities of the hull and its close-in maneuverability. Pilots always add their ship's Speed score to any Vehicle/Space tests they may be required to make.

Armor is subtracted from any incoming damage. Most starships are effectively immune to man-portable weaponry, but Gunnery weapons can do one-quarter damage to them before applying armor, and many starship-mounted weapons are designed to ignore a certain amount of armor.

Hit Points function much as they do for everything else. Fighter-class hulls brought to zero hit points are destroyed with all hands, while larger ships have a chance of powering down the ship before it explodes.

Crew minimums and maximums show the minimum number of crew required to operate the ship, ignoring gunnery needs. The maximum indicates the total number of crewmen or passengers the ship can accommodate without additional life support facilities. A fully-refreshed life support system can maintain a maximum-sized crew for two weeks, if no additional stores are laid in, and smaller crews for a proportionately longer time.

Armor Class reflects the ECM and integral defensive systems of the ship in space combat situations. Hitting a ship in space combat is much the same as hitting anything else; 1d20 plus the gunner's attack bonus, Combat/Gunnery skill, the relevant attribute modifier, and the target's Armor Class. If the total is greater than 20, the target ship is hit. A ship's base armor class is reduced by the skill level of the pilot.

Power is a measure of the free power available after the ship's integral functions and drive operation have been powered. Weaponry and ship fittings often require additional power, and no ship can fit more of them than its spare power grid availability permits.

Free mass is a combination of available cargo space and uncommitted hardware support structures. Most additional ship fittings and guns require committing some free mass, as does cargo haulage.

Hardpoints represent the available gunnery computing power and heavy-duty routing capable of supporting modern ship weaponry. No ship can mount more weapon systems than its hardpoints allow, and some systems are complex enough to require multiple hardpoints.

Ship Design Summary

Select a Hull

Choose a hull from the list provided. Military ships may require special permission from an orbital shipyard's controlling government. The ships listed are all tech level 4 hulls; very few worlds have the industrial and scientific base to create even small TL 5 hulls. Most remaining pretech ships are those salvaged from caches left before the Silence.

Select Fittings and Drive

Choose any additional special fittings from the list provided. While all hulls come with a drive-1 rated spike drive, more advanced propulsion units might be installed at a cost of power and free mass. Drives and many other fittings have variable cost, power and mass requirements depending on the size of hull into which they are installed.

Remember that cruisers and larger ships will need a cargo lighter or drop pod to transport crew to planetary surfaces.

Note also that some fittings require at least a certain class of hull to mount them. A fitting marked "cruiser", for example, can be installed on cruiser and capital ship hulls, but not on frigates or fighter-class hulls.

Select Weaponry

With the remaining power and free mass, choose the weaponry to be mounted on the ship. Aside from class limitations, weapons also take up at least one hardpoint on the ship. If there are not sufficient free hardpoints, the weapon cannot be mounted.

Weapons have special qualities- some are exceptionally effective against armor, others are devastating to Fighter-class attackers, and some are multifrequency weapons that can more easily penetrate a target's spike phasing. Keep in mind that a cruiser with no point weaponry is easy prey against a cloud of fractal impact charge-equipped enemy fighters, and a strictly flak-boat cruiser will find its weapons useless against a battleship.

Note also that some weapons require ammunition. This ammunition must be purchased separately and free mass must be set aside to hold the magazines and loading equipment.

Select Defenses

If cash, power and free mass are left over, choose from the available starship defenses.

Tally Costs

Add up the power and free mass requirements of your fittings, weaponry, and defenses. Add in the free space necessary to hold any necessary ammunition. If the resulting numbers are higher than the hull's rated power and free mass, you'll need to trim something to fit it all in. Make certain you don't have more total hardpoints committed to weaponry than you have available. Finally, tally the total credit cost of the ship. Cost entries on the table are noted in "k" for thousands of credits, and "m" for millions of credits.

STARSHIP HULLS										
<i>Hull</i>	<i>Cost</i>	<i>Speed</i>	<i>Armor</i>	<i>HP</i>	<i>Crew Min/Max</i>	<i>AC</i>	<i>Power</i>	<i>Free Mass</i>	<i>Hardpoints</i>	<i>Class</i>
Fighter	200k	5	5	8	1/1	4	5	2	1	Fighter
Shuttle	200k	3	0	15	1/10	9	3	5	1	Fighter
Free Merchant	500k	3	2	20	1/6	6	10	15	2	Frigate
Patrol Boat	2.5m	4	5	25	5/20	6	10	10	4	Frigate
Frigate	4m	2	10	40	10/40	7	15	15	6	Frigate
Bulk Freighter	5m	0	0	40	10/40	9	15	25	2	Cruiser
Cruiser	10m	1	15	60	50/200	6	50	30	10	Cruiser
Battleship	50m	0	20	100	200/1,000	4	75	50	15	Capital
Carrier	60m	0	10	75	300/1,500	6	50	100	4	Capital

All listed hulls can be built at tech level 4 orbital shipyards, if sufficient resources and labor are available. Military hulls usually require special permission from the planetary government as well.

All hulls come with an integral drive-1 rated spike drive and life support sufficient to maintain the maximum crew for two weeks, or a lesser number for a proportionally longer time. A few system ships have been designed without spike drives, relying purely on slow, primitive methods of propulsion, but the enormous defensive advantages that spike drives give combat ships has made such techniques all but unknown outside of the most backwards or desperate worlds. For such ships, halve the price but leave other statistics intact. Such ships cannot upgrade their spike drive, as they are not equipped with one in the first place.

More advanced hull models exist, but most of them can be found only as salvage or relics from before the silence. Maintenance and repair of these superb vessels is often beyond the capacity of frontier worlds, let alone actually building them from scratch.

A number of fully-statted sample ships are provided in the Resource chapter.

Fighters are little more than spike drives strapped to a cockpit and a targeting computer. While a sufficiently talented pilot can theoretically make short-range interstellar drills in a fighter, it requires heroic fortitude to endure ten days of metadimensional spaceflight while strapped into a fighter cockpit.

Shuttles are larger, slower craft that still fall within the fighter class of hulls. They are largely intended for in-system interplanetary flight. Short-range spike drills are more practical in shuttlecraft, but few pilots will attempt it outside of direst need.

Free merchants represent a class of ships optimized for long-distance travel and trade, built off of a frigate-class hull and sacrificing some military utility in order to make room for cargo and personal modifications.

Patrol boats are largely intended for system defense and customs inspections, built to heavily outgun most of the traffic they might be expected to intercept. While capable of spike drive travel, most patrol boats stay close to home.

Frigates are the namesake of their class. While slower and more expensive than their cut-down patrol boat cousins, they have heavier armor and more free space for accommodating upgraded spike drives and advanced fittings. Many minor stellar empires are held together by frigates that make regular patrols through territorial space.

Bulk freighters are rarely found in the modern era. Before the Silence, these massive cruiser-class ships were often found in versions that lacked a spike drive, relying on the psionic jump gates to instantly transport them from one star system to another. In the present day, not many worlds support a sufficient volume of interstellar cargo traffic to justify the expense of running a ship like this.

Cruisers are often the pride of a modest stellar empire's battle line. Most fighter-class weaponry is unable to even scratch a cruiser's plating, while its vast power reserves fuel almost twice as many hard points as a frigate mounts.

Battleships are the queen of capital-class hulls. Huge, enormously resilient, and capable of mounting weaponry that can swat a frigate out of the sky in a single volley, few frontier worlds retain the kind of industrial base necessary to build ships of this class. Possession of a battleship can often make a stellar empire's fortune- at least until the ship's voracious need for men and maintenance drains the empire's remaining reserves.

Carriers are a rare and specialized type of capital-class hull, one that sacrifices much in the way of available power grid and resilience in exchange for massive banks of adaptive hardware fittings. Carriers usually mount as many as a score of launch bays for unleashing waves of fighter craft against enemy ships.

STARSHIP FITTINGS						
<i>Fitting</i>	<i>Cost</i>	<i>Power</i>	<i>Free Mass</i>	<i>Min. Class</i>	<i>TL</i>	<i>Function</i>
Advanced nav computer	10k*	1#	0	Frigate	4	Adds +2 for travelling familiar spike courses
Armory	2k*	0	0	Frigate	4	Weapons and armor for the crew
Atmospheric configuration	5k*	0	1#	Fighter	4	Can land: frigates and fighters only.
Auto targeting system	100k	1	0	Fighter	4	Fires one weapon system without a gunner
Boarding tubes	5k*	0	1	Frigate	4	Allows boarding of a hostile disabled ship
Cargo lighter	25k	0	2	Frigate	4	Orbit-to-surface cargo shuttle.
Cargo space	No cost	0	1	Fighter	4	Pressurized cargo space.
Cold sleep pods	5k*	1	1	Frigate	4	Keeps occupants in stasis for an indefinite time.
Drive-2 upgrade	10k*	1#	1#	Fighter	4	The ship's spike drive is upgraded to a drive-2
Drive-3 upgrade	20k*	2#	2#	Fighter	4	The ship's spike drive is upgraded to a drive-3
Drive-4 upgrade	40k*	2#	3#	Frigate	5	The ship's spike drive is upgraded to a drive-4
Drive-5 upgrade	100k*	3#	3#	Frigate	5	The ship's spike drive is upgraded to a drive-5
Drive-6 upgrade	500k*	3#	4#	Cruiser	5	The ship's spike drive is upgraded to a drive-6
Drop pod	300k	0	2	Frigate	4	Stealthed landing pod for troops
Emissions dampers	25k*	1#	1#	Fighter	4	Adds +2 to difficulty of locating the ship
Extended life support	5k*	1#	1#	Fighter	4	Doubles maximum crew size.
Extended medbay	5k*	1	1	Frigate	4	Can provide medical care to more patients
Extended stores	2.5k*	0	1#	Fighter	4	Maximum life support duration is doubled
Fuel bunkers	2.5k*	0	1	Fighter	4	Adds fuel for one more drill between fuelings
Fuel scoops	5k*	2	1#	Frigate	4	The ship can scoop fuel from a gas giant or star
Hydroponic production	10k*	1#	2#	Cruiser	4	Ship produces life support resources
Lifeboats	2.5k*	0	1	Frigate	4	Emergency escape craft for a ship's crew
Precognitive nav chamber	100k*	1	0	Frigate	5	Allows a precog to assist in navigation
Ship bay/fighter	200k	0	2	Cruiser	4	Carrier housing for a fighter
Ship bay/frigate	1m	1	4	Capital	4	Carrier housing for a frigate
Ship's locker	2k*	0	0	Frigate	4	Survey and exploration equipment for the crew
Survey sensor array	5k*	2	1	Frigate	4	Improved planetary sensory array
Workshops	5k	2	1	Frigate	4	Automated tech workshops for maintenance
# Multiply requirements by 2 for frigates, 3 for cruisers, and 4 for capital ships						
* Multiply cost by 10 for frigates, 25 for cruisers, and 100 for capital ships						

Ship fittings can only be installed once for any particular system, unless noted otherwise. Ship fittings usually require a particular minimum hull class for installation as well, with frigates being unable to mount a fighter launching bay.

Starship Fittings

Advanced nav computer: Forging new spike courses is too much an art to rely on computerized assistance, but an advanced nav computer can help on well-mapped routes. When navigating an interstellar drill course with charts less than a year old, the navigator can add +2 to their skill check.

Armory: Rather than maintaining lengthy lists of ship equipment, a captain can simply buy an armory. Ships so equipped have whatever amounts of TL 4 weaponry and armor that a normal-sized crew might require, and integral maintenance facilities for its repair and upkeep.

Atmospheric configuration: This fitting must be put in place when the ship is built, and cannot be installed on cruiser-class or larger ships. A ship designed for atmospheric flight can land on most solid or aqueous surfaces, provided the material is capable of bearing its weight.

Auto targeting system: Some ships run with more guns than crewmen. Gunners are in addition to the ship's normal minimum crew total, and while the pilot can fire one weapon himself with his or her own Combat/Gunnery skill, other weapons must have their own gunners. Installing an autonomic targeting system for a gun allows it to shoot at a +1 hit and damage bonus without human assistance. This system must be installed once for each gun.

Boarding tubes: Armored tubes equipped with laser cutter apertures can be used to forcibly invade a hostile ship, provided the target has been disabled. Ships without boarding tubes have

to send invaders across empty space to either make an assault on a doubtless heavily-guarded airlock or cut their way in through the hull with laser cutters and an hour or two of time.

Cargo lighter: Cruisers and larger craft can't land on planetary bodies, so they require small shuttlecraft for transport. A cargo lighter is only capable of surface-to-orbit flight, which takes roughly twenty minutes either way, but can carry up to 200 tons of cargo and passengers. This fitting can be purchased multiple times.

Cargo space: Free mass can be traded for pressurized cargo space. One point of free mass grants 2 tons of cargo space in a fighter, 20 tons in a frigate, 200 tons in a cruiser, and 2000 tons in a capital-class ship. This fitting can be purchased multiple times.

Cold sleep pods: These stasis pods can keep a subject alive for centuries provided that the ship's power doesn't fail. Each installation allows for keeping a number of people equal to the ship's maximum crew in stasis indefinitely. This fitting can be installed multiple times.

Drive upgrades: A ship can improve its standard-issue drive-1 spike drive with additional phase filters and power throughput refinements. A captain needs buy only the final grade of drive desired- he does not have to buy upgrades sequentially.

Drop pod: Armored and stealthed versions of cargo lighters, these craft are twice as fast, apply a -3 penalty to tracking and targeting skill checks, and can carry up to one hundred troops or passengers. Many are equipped with assorted Gunnery weapons to clear the landing zone, and can be treated as flight-capable gravtanks for purposes of combat. This fitting can be purchased multiple times.

Emissions dampers: Stealth systems can mask the ship's energy emissions through careful modulation of the output. All travel times inside a star system are doubled when the system is engaged, but any attempts to locate or reveal the ship are at -3 penalty.

Extended life support: The ship can be designed to accommodate a larger number of crew or passengers. Extended life support can be fitted multiple times; each time, the maximum crew rating of the ship increases by 100% of its normal maximum. Thus, a free merchant who installs this twice can have a maximum complement of 18 people.

Extended medbay: All ships are equipped with basic medical facilities for curing lightly injured crew members and keeping the seriously injured ones stable until reaching a planet. An extended medbay improves those facilities, allowing for the medical treatment of up to the ship's entire maximum crew at once, including the treatment of critically wounded passengers.

Extended stores: A normal complement of ship's stores can keep the maximum crew size supplied for two weeks. Each selection of extended stores doubles that time, and can be fitted multiple times.

Fuel bunkers: Most ships require refueling after each drill jump, no matter the distance. Installing fuel bunkers allows the ship

to carry one additional load of fuel. This fitting can be installed multiple times.

Fuel scoops: Fuel scoops allow for the harvesting and extraction of hydrogen from gas giants or the penumbra of solar bodies. The extraction process requires four days of processing and refinement, but completely refuels the ship. Such fittings are common on explorer craft that cannot expect to find refueling stations.

Hydroponic production: Some ships are designed to produce food and air supplies for the crew. Selecting hydroponic production allows for the indefinite supply of a number of crewmen equal to the ship's maximum crew. This option may be taken multiple times for farm ships, in which case each additional selection doubles the number of people the ship can support.

Lifeboats: Selecting this fitting equips the ship with a number of single-use escape craft capable of reaching the nearest habitable planet or station in a star system. If no such destination exists, the boats can maintain their passengers for up to a year in drugged semi-stasis. Lifeboats have fully-functional comm systems and are usually equipped with basic survival supplies and distress beacons. A single selection of this fitting provides enough lifeboats for a ship's maximum crew, with up to twenty people per boat.

Precognitive nav chamber: An extremely rare example of psitech dating from before the Scream, a precognitive nav chamber allows a character with at least 5 levels in the Precognition psionic discipline to assist in interstellar drills, sensing impending shear alterations before they happen. The time required for the drill is doubled, but the navigator can reroll a failed navigation check once in addition to any reroll an Expert navigator might have. On drilling in to the destination system, the psychic has expended all psi points.

Ship bays: These sophisticated docking bays provide all the necessary tools and support for launching a starship from the mother craft. They are rarely seen outside of dedicated capital-class carriers, but some cruisers make room to mount a fighter-class attack shuttle. Each bay allows room for one ship of the appropriate hull class. This fitting can be taken multiple times.

Ship's locker: Much like an armory, this option allows a captain to lay in a general supply of equipment likely to be useful to explorers and spacemen. Any TL 4 equipment on the gear list can be found in the ship's locker in amounts commensurate with the ship's size. A few guns and some basic armor might be included as well, but for serious armament an armory is required.

Survey sensor array: Most ships require only basic analysis of a star system, sufficient to identify population centers, do rough scanning of an object's composition, and chart major navigational hazards. Survey sensor arrays greatly enhance the ship's sensor abilities, allowing for finely-detailed mapping of objects and planets, along with broad-spectrum communications analysis. Any scan rolls with survey sensor arrays add +2 to the tech's skill check roll.

Workshops: Onboard workshops allow for the fabrication of many important parts out of raw materials and the analysis and reproduction of TL 4 equipment by trained technicians.

STARSHIP WEAPONS								
<i>Weapon</i>	<i>Cost</i>	<i>Damage</i>	<i>Power</i>	<i>Free Mass</i>	<i>Hardpoints</i>	<i>Min. Class</i>	<i>TL</i>	<i>Special</i>
Multifocal Laser	100k	1d4	5	1	1	Fighter	4	AP 20
Reaper Battery	100k	3d4	4	1	1	Fighter	4	Clumsy
Fractal Impact Charge	200k/500	2d6	5	1	1	Fighter	4	AP 15, Ammo 4
Polyspectral MES Beam	2m	2d4	5	1	1	Fighter	5	AP 25, Phase 1
Sandthrower	50k	2d4	3	1	1	Fighter	4	Flak
Flak Emitter Battery	500k	2d6	5	3	1	Frigate	4	AP 10, Flak
Torpedo Launcher	500k/2.5k	3d8	10	3	1	Frigate	4	AP 20, Ammo 4
Charged Particle Caster	800k	3d6	10	1	2	Frigate	4	AP 15, Clumsy
Plasma Beam	700k	3d6	5	2	2	Frigate	4	AP 10
Mag Spike Array	1m/5k	2d6+2	5	2	2	Frigate	4	Flak, Phase 1, Ammo 10
Spinal Beam Cannon	1.5m	3d10	10	5	3	Cruiser	4	AP 15, Phase 1, Clumsy
Smart Cloud	2m	3d10	10	5	2	Cruiser	4	Cloud, Clumsy
Gravcannon	2m	4d6	15	4	3	Cruiser	4	AP 20
Spike Inversion Projector	2.5m	3d8	10	3	3	Cruiser	4	AP 15, Phase 2
Vortex Tunnel Inductor	5m	3d20	20	10	4	Capital	4	AP 20, Phase 1, Clumsy
Mass Cannon	5m/50k	2d20	10	5	4	Capital	4	AP 20, Phase 3, Ammo 4
Lightning Charge Mantle	4m	1d20	15	5	2	Capital	4	AP 5, Cloud
Singularity Gun	20m	5d20	25	10	5	Capital	5	AP 20, Phase 6

STARSHIP DEFENSES						
<i>Defense</i>	<i>Cost</i>	<i>Power</i>	<i>Mass</i>	<i>Min. Class</i>	<i>TL</i>	<i>Effect</i>
Augmented Plating	50k*	0	1#	Fighter	4	-2 AC, -1 Speed
Hardened Polyceramic Overlay	25k*	0	1#	Fighter	4	AP quality of attacking weapons reduced by 5
Grav Eddy Displacer	50k*	5	2#	Frigate	5	1 in 6 chance of any given attack missing.
Point Defense Lasers	10k*	4	2#	Frigate	4	-2 AC versus weapons that use ammo
Stutter Phase Generator	40k*	5	3#	Cruiser	4	Phase quality of attacking weapons reduced by 2
Foxer Drones	50k*	2	1#	Cruiser	4	-2 AC for one round when fired, Ammo 5
Ablative Hull Compartments	100k*	5	2#	Capital	4	-1 AC, +20 maximum hit points
# Multiply by 2 for frigates, 3 for cruisers, and 4 for capital ships. * Multiply cost by 10 for frigates, 25 for cruisers, or 100 for capital ships.						

All starship weaponry requires Combat/Gunnery skill to fire and relies on the user's Intelligence to determine hit and damage modifiers. Most NPC gunners have a total attack bonus of +1 and damage bonus of +0. Military gunners average +3 to hit and +1 damage, while capital ship gunners are among the elite of a given space navy and rarely have less than +5 to hit and +2 damage.

Special Weapon Qualities

Ammo: The weapon or defense requires ammunition to fire. Each round's cost is listed after the weapon's cost, and a number of rounds equal to the weapon's Ammo rating can be fit into one free mass unit. For example, a torpedo launcher can fit the magazine and loading gear for four torpedoes into one free mass unit, and each torpedo will cost 2,500 credits. For each ship class larger than the minimum required to mount the weapon, double the stored ammo per unit.

AP: The weapon ignores this many points of a target's armor. The Hardened Polyceramic Overlay defense upgrade may lessen the effectiveness of this quality. The most a weapon's AP rating can do

is reduce a target's effective armor to zero. It cannot add additional damage to a hit.

Cloud: The weapon fires an omnidirectional wave or spray of projectiles. It automatically targets all Fighter-class ships that have attacked the ship that round, and the gunner may make one attack roll against each target. Cloud weapons have no effect on ships larger than fighter-class hulls.

Clumsy: Either through a slow discharge time or unwieldy engineering requirements, this weapon suffers -2 to hit small fighter-class hulls.

Flak: These weapons launch vast numbers of small energy discharges or projectiles. While they do normal damage to larger ships, fighter-class hulls are exceptionally vulnerable to these weapons, and double their incoming damage before applying their armor to it.

Phase: The weapon extends into multiple extradimensional frequencies. When a gun's spike phase does not match a target's spike phase it is normally necessary to roll over the phase difference on 1d6. Phase weapons add their rating to this roll.

Starship Weapons

Multifocal Laser: Twinned assay and penetration lasers modulate the frequency of this beam for remarkable armor penetration. These weapons are popular choices for fighters intended for frigate or cruiser engagement.

Reaper Battery: Stepped tapping of the spike drive power plant allows for the emission of a torrent of charged particles. The particles have very little armor penetration, but can fry a small ship's power grid in a strike or two.

Fractal Impact Charge: A spray of penetrator sabots that use fractal surfacing to increase impact. Favored for bomber-class fighter hulls.

Polyspectral MES Beam: A rare example of pretech weaponry, a fighter equipped with a PMB can scratch even a battleship's hull.

Sandthrower: Projecting a spray of tiny, dense particulate matter, sandthrowers are highly effective against lightly-armored fighters.

Flak Emitter Battery: A baseline frigate anti-fighter system, this battery fires waves of lasers or charged particles to knock down small craft.

Torpedo Launcher: Capable of damaging even a battleship, torpedoes are cumbersome, expensive, and often the core of a line frigate's armament.

Charged Particle Caster: A focalized upgrade to the reaper battery, the CPC has a much better armor penetration profile.

Plasma Beam: With superior targeting and a smaller energy drain than a CPC, a plasma beam sacrifices some armor penetration.

Mag Spike Array: A storm of magnetically-accelerated spike charges is almost guaranteed to eradicate any fighter-class craft it hits.

Spinal Beam Cannon: One of the first spinal-mount class weapons, the SBC briefly channels the full power of the ship into a charged beam.

Smart Cloud: A swarm of self-directed microdrones sweeps over the ship. Their integral beam weaponry is too small to damage larger ships, but they can wipe out an attacking fighter wave in moments.

Gravcannon: Using much the same principles as man-portable grav weaponry, the gravcannon causes targets to fall apart in a welter of mutually-antagonistic gravitic fields.

Spike Inversion Projector: The SIP uses the ship's spike phasing as an offensive weapon, penetrating the target with a brief incursion of MES energies that largely ignore attempts to evade.

Vortex Tunnel Inductor: A capital-class model of the SIP, a VTI is capable of incapacitating a cruiser in two hits. Its bulk limits its utility against fighter-class craft, however.

Mass Cannon: By firing projectiles almost as large as fighter-scale craft, the mass cannon ignores most attempts to spike phase. Serious ammunition limitations hamper its wider-scale use.

Lightning Charge Mantle: Modulation of the ship's power core emits a cloak of MES lightning. While larger spike drive craft can shunt the energies away harmlessly, fighter-class ships are almost invariably destroyed if hit.

Singularity Gun: One of the few surviving pretech weapons in anything resembling wide currency, this capital-class weapons system fires something mathematically related to a miniaturized black hole at a target. The enormous mass signature of the attack nullifies any attempt at phase shifting, and the impact can theoretically cripple a battleship in a single hit.

Starship Defenses

Augmented Plating: At the cost of a certain amount of speed and maneuverability, a ship can have its armor plating reinforced against glancing hits. This augmentation can decrease a ship's Speed below 0, meaning it will be applied as a penalty to all Piloting tests rather than a bonus.

Hardened Polyceramic Overlay: A complex glazing process can harden the surface of a ship's armor to more effectively shed incoming attacks.

Grav Eddy Displacer: This system links with a ship's navigational subsystem and randomizes the motion vectors in sympathy with metadimensional gravitic currents. This causes the ship to rapidly skip small distances at unnaturally high speed, giving a small chance of completely defeating an incoming attack.

Point Defense Lasers: Too small to damage ships, these point defense lasers can detonate incoming munitions, improving the ship's defenses against torpedoes, fractal impact charges, and other ammunition-based weapons.

Stutter Phase Generators: These generators carefully modulate the ship's phase state at a finer level than conventional spike phasing permits. Weapons designed to defeat spike phasing have a correspondingly harder time doing so.

Foxer Drones: These drones are invariably short-lived due to the enormous energy signatures they produce, but for a brief, precious time they can greatly increase the difficulty of targeting their parent ship. Foxer drones are cheaply constructed and essentially free; the only limit on their number is the amount of free space set aside for holding them.

Ablative Hull Compartments: By sacrificing empty hull space in a complex system of ablative blast baffles, a capital-class ship can have a large amount of its total mass shot away without actually impinging on its normal function.

Artifacts

While generic pretech weaponry is of superb quality and manufacture, some pieces exceed even the customary excellence of the ancients. These “artifact” weapons are usually the product of short production runs by master pretech craftsmen or individually-designed masterpieces. Some pre-Scream manufacturers retain fame even centuries later for the unique quality of their workmanship.

Artifact weapons are almost never found on the market. The few pieces that are found and offered for sale are snapped up almost immediately by elite operatives and others who rely on the quality of their hardware to preserve their own lives. Most who have artifact weaponry have either found it in a long-abandoned pretech cache, received it from a superior, or taken it from the cold hands of a former owner. Selling such a weapon tends to be equally difficult, with buyers few and untrustworthy.

Artifact Weaponry

Absolution Armaments: A company specializing in energy weaponry, AA pioneered several techniques for increasing the energy efficiency and penetrating power of their armaments. AA laser weapons ignore particulate matter when shooting, and all AA weapons gain +1 to hit and +2 damage.

Colonial Arms: An armaments company dating from the First Wave of human colonization, Colonial Arms was famous for the incredible durability and versatility of their firearms. Their guns were largely self-repairing from anything short of having pieces torn off, and their projectile weapons automatically self-adjusted to fire whatever ammunition was available, in any environment from hard vacuum to underwater operations. A Colonial Arms projectile or energy weapon also gains a +1 bonus to hit and damage rolls.

Fiat Lux: This manufacturer specialized in laser and plasma weaponry. Their products were largely conventional in function, but the quality of craftsmanship was seldom surpassed. Fiat Lux weaponry grants +2 to hit rolls and damage.

Nightfall Combine: The exact nature of the Nightfall Combine was unclear even before the Scream, with rumors of alien xenotech manufacturing techniques and esoteric psitech materials research. The weapons produced by the Combine were some of the finest ever developed by humanity. Combine weaponry grants +3 to hit and damage rolls.

Omnipresence, Ltd.: A pretech manufacturer who specialized in holdout weaponry, Omnipresence arms are composed of special polymorphic nano-compounds that are capable of shifting shape in moments. Omnipresence weaponry can take a single alternate shape of the same mass set during manufacture- usually a belt, necklace, or other seemingly innocuous object. When gripped



and a short keycode is spoken, the item instantly shifts forms, containing whatever ammunition it was originally loaded with. Shifted Omnipresence weapons cannot be detected by any postech means; even a pretech scanner will only reveal that the object is composed of complex nanites. Omnipresence weapons grant +1 to hit and damage rolls.

PolyGaia Defense: Originally an organization of militant pan-planetary animists, PolyGaia armaments function perfectly in almost any environment. Projectile and energy weapons are also equipped with integral monoblades, and can be used as such without a need to swap weapons. PolyGaia weaponry grants +1 to hit and damage rolls.

SamaelTech: The Sons of Samael were one of the myriad peculiar religious and ideological groups that flourished during the Second Wave of human expansion. While their exact beliefs are unclear at this distance, their surviving melee armament is invariably superb. Monoblades, kinesis wraps, and other such SamaelTech weaponry all have +1 to hit and +1 damage. Some SamaelTech weapons appear to be decorated with Judeo-Christian iconography and advanced nanotech cutting surfaces. These pieces grant +2 to hit and damage.

Stardust Micropellet System: The “Stardust” system was a cutting-edge effort to use gravitic manipulation techniques in projectile weaponry. By giving a tiny flake of matter the mass profile of a bullet, a Stardust weapon never runs out of ammunition, albeit Stardust weaponry cannot burst fire. Stardust weaponry gains +1 on all hit and damage rolls.

Valiance Arms: Somewhat stodgy by pretech standards, Valiance never embraced the more exotic potentials of pretech science. The company instead preferred to focus on precision low-recoil projectile weapons and high-quality craftsmanship. Valiance projectile weapons grant +2 to hit and damage rolls.

Artifact Armor and Equipment

Certain types of pretech armor and equipment are so rare or useful that they cannot normally be acquired on the open market. Much like artifact weaponry, these artifact armors and items of equipment are jealously held by those lucky enough to find them. The same burdens exist for holders who might aspire to buy or sell them.

Not all pretech manufactures qualify as artifact equipment. Much pretech output was functionally identical to the same goods made today, merely produced more cheaply or quickly. Modern pretech-producing planets take full advantage of this and their wares are in hot demand throughout whatever sector is fortunate to have such a world. Pretech artifacts, on the other hand, were almost all manufactured with techniques that have not survived to the present fallen age.

PCs are advised to be discreet about acknowledging possession of many of the following items. Many worlds have no compunction about confiscating valuable artifact finds from outworlders, the better to ensure they end in “responsible hands”.

Artifact Armor

Executive Security Suit: This suit of stylish pretech clothing can self-modify in one minute to appear as any normal suit of clothing and grants AC 6 to the wearer. Originally designed for VIP protection, the executive security suit automatically stabilizes a mortally-wounded wearer provided they haven't taken enough damage to make revival impossible. The suit is so light that it does not add to the wearer's encumbrance.

Ghost Mantle: Designed for use by elite infiltrators, a ghost mantle can warp light around the wearer to blur his or her outlines and coloring to match the surroundings. The mantle can self-modify in one minute to appear as any normal suit of clothing and grants AC 6 to the wearer. When used in stealth mode, it grants a +2 bonus to all Stealth-related skill checks.

Polyplast Carapace: This variant form of assault suit employs pretech deforming polymers to create sealed joints and flexible armor plates that still maintained rigidity under impact. A polyplast carapace is treated as an assault suit with AC 2, except that it counts as only one item for encumbrance and requires no Exosuit skill to use correctly. Integral kinetic absorption sinks allow the armor to function without the need for power cells.

Psitech Combat Suit: One of the rare psitech artifacts originally designed for use by military combat psychics, this snug-fitting armored suit grants the wearer an AC of 4. Its special ability functions only for psychics; it can allow the user to reflexively fuel the suit's defenses with their own psychic reserves. At the wearer's discretion, they can subtract any incoming damage from their remaining psi points rather than their hit points, assuming sufficient psi point reserves remain. Each time they do this, they must make a Tech saving throw or the psychic conversion shock leaves them unable to use psionic disciplines until after the end of their next turn.

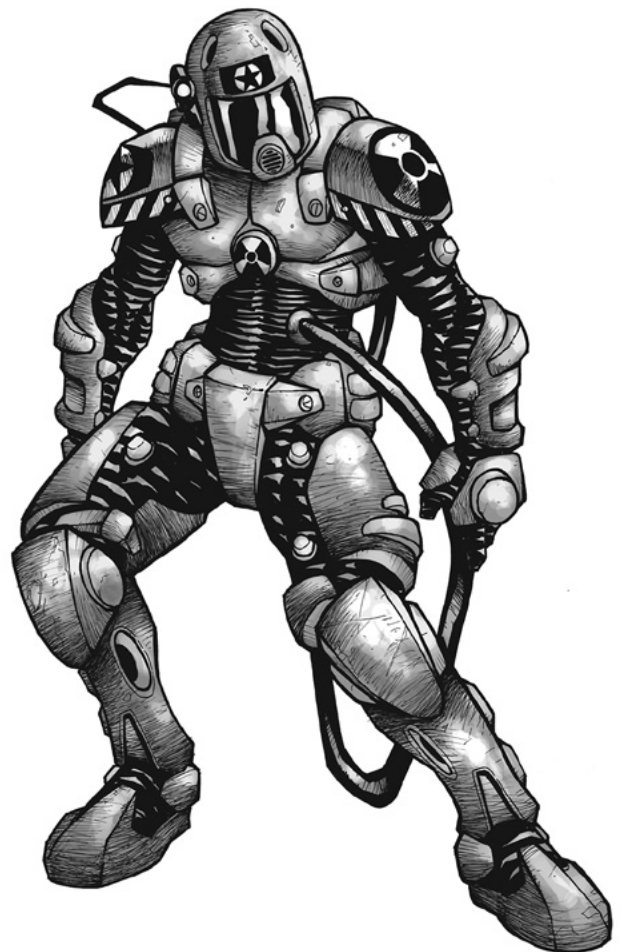
Stutterjump Suit: A modified version of the Deflector Array, a stutterjump suit grants the wearer a limited form of teleportation through integral psitech circuitry. As an action, the wearer can teleport to any location within one hundred meters, provided they have an unobstructed line of sight to it. The suit's circuitry requires twelve hours to recover enough for another jump. The suit does not require power cells to function.

Titan Powered Armor: An enormously heavy suit of servo-actuated powered armor, Titan assault plate was favored by pretech boarding parties and space marines. It grants the wearer all the usual benefits of powered armor, but has a base AC of -1 and integral low-light visual sensors and tactical comm units.

Tempest Assault Array: A modified version of the Field Emitter Panoply, the TAA has all the functionality of the FEP but also does an automatic 1d6 damage to anyone who hits the wearer in melee. Kinetic sinks also allow the TAA to function without the need for power cells.

Artifact Equipment

AI Companion: True AI was an elusive goal of pretech scientists. AIs required individual care during their development, and a disturbing percentage of them had to be “braked” at sub-human levels in order to prevent runaway cogitation on imponderable philosophical questions and the ensuing metastatic insanity that followed. Some AIs managed to attain a human level of sentience before requiring brakes. The less brilliant of these AIs could be



contained in hardware no larger than five or six centimeters on a side, usually with integral sensors and vocalization units. If an AI companion takes a liking to a PC, they can be useful allies; they all have effective Computers and Tech skills at level 3 or greater, and may have additional capabilities. A distressing number of these AIs have their own purposes, however, that are not necessarily complementary to those of their “owners”.

Integrity Stims: Usually found in the form of a skinspray applicator, integrity stims restore 1d6+1 hit points to a subject for each dose applied. Each dose increases the target's System Strain by 1 point, and the stims are useless to those with maximized System Strain. More than one dose can be triggered into a subject in one round, but each dose after the first adds an additional second System Strain point from the sudden overload of stimulants.

Juggernaut Stims: Originally designed for pretech shock troops, this skinspray stimulant charges the user with fearless aggression and indifference to pain. The user immediately gains 3d6 temporary hit points and +2 to hit for a period of ten rounds. At the end of that period, any remaining temporary hit points are lost, and the subject suffers -2 to hit for the next hour as their system recovers. Use of this stim adds 1 point of System Strain.

Micropurgator Stims: A sprayhypo laden with a revivifying cocktail of nanites and support chemicals, a micropurgator stim will remove 1d4 points of accrued System Strain from the user. Only one such stim can be applied to a person within 24 hours.

Mindwall Helmet: A transparent-visored helmet, this headpiece strengthens the integrity of the wearer's neural patterns, making it more difficult for them to be influenced by mind-affecting psionic powers. The wearer gains a +2 saving throw against any such attack, and is automatically alerted by the helmet if made the target of a telepathic power. The helmet does not help against purely physical psionic attacks, such as through telekinetics, and it cannot be worn with powered armor, vacc suits, or an assault suit.

Polymorphic Nanites: Usually found in two-kilo cylinders with integral input-output data ports, polymorphic nanites were a late-Second Wave development that promised to revolutionize

manufacturing. When fed a design schematic using standard pretech CAD/CAM protocols, the nanites exude into the desired object, mimicking any necessary physical properties. The nanites can be used to create any object of equivalent or lesser mass, provided a datapad or the equivalent is available to feed them the schematic. The nanites are single-use, but multiple cylinders can be linked together to create larger objects. The workmanship of the nanites is good, but not exceptional; any available schematic of tech level 4 or less can be produced.

Redivivus Sheath: When found, a redivivus sheath resembles a tightly-rolled body bag with a fist-sized computing module affixed to it. When a freshly-dead human body is sealed into the bag the module releases a cloud of nanite to repair and revive the subject. Revivification will work on any victim no more than five minutes dead, assuming the head is intact and most of their mass is present. Subjects are revived in critically wounded condition with maximized System Strain. The redivivus sheath functions only once before burning out.

System Reset Inductor: An array of pretech pharmaceuticals of truly heroic breadth, a sprayhypo full of system reset inductor is one of the most powerful concoctions ever devised by pretech biochemists. On injection, the subject immediately loses all accrued System Strain points barring those permanently added by cyberware. The user can gain new System Strain normally, but 48 hours after the inductor has been administered, the strain will catch up with them. They fall immediately unconscious with 1 hit point and maximized System Strain, and will remain in a coma for 48 hours before awakening. Use of a second inductor before the first has run its course will inevitably kill the subject within five rounds of application, with no hope of revival by psionic disciplines or conventional medical aid.

Wideawake Serum: Originally designed to facilitate spike drills for single-man ships that couldn't afford a sleeping pilot, wideawake serum gives the user enormous vigor and alertness for up to seven days at a time. The user need not sleep or even rest, but during this time it is impossible to recover accrued System Strain. A successful Tech/Medical check at difficulty 10, made at most once per day, can flush the drug from the user prematurely.

CHAPTER FOUR

SYSTEMS

This chapter reviews the game systems provided for combat, overland movement, injury, disease, poison, environmental hazards, starship combat, and other characteristic pursuits of spacefaring adventurers. Both players and GMs should read over the next dozen pages, with a particular eye for the skill check, combat, and healing rules.

While the rules that follow can cover many of the activities and challenges that might face an adventurer, it's inevitable that something will occasionally arise that has no clear resolution. In these cases, the GM should simply make a decision or call for a roll and move on. Players should avoid arguing these calls at the table; *Stars Without Number* is such a loose system that it's very difficult to run a session without some sort of judgment call from the GM. Sometimes the call will be in the player's favor and sometimes otherwise, and in the long run it tends to balance out.

In the same vein, players shouldn't hesitate to attempt things just because there's no explicit system spelled out for it. If an action is reasonable and something that your character should be able to try, then attempt it. The GM can take the situation into account and give you either the results or a roll to make.

If a skill check doesn't seem to fit and the activity doesn't rely on a character's attributes, then a GM might simply give you a percentage chance of success and have you roll it. For example, deciding to cross a collapsed stretch of corridor by creeping over on the steam pipes overhead might rely mostly on whether or not the steam pipes have corroded rather than any capacity of the player. For such a question of luck, the GM might simply tell you to roll 4 or better on 1d6.

GMs and players should also feel free to create or import their own systems for resolving common activities, if a need is felt for them. *Stars Without Number* is compatible with a great many old-school and retro-inspired games, and it's often possible to hijack some of the fine work done for them to import into your own games.

These changes should be discussed among the players and the GM, however, and any changes made clear before they are put into effect. Adventurers find themselves plunged into danger on a regular basis, and a player can get a PC into more trouble than they think if they don't understand the systems involved in the situation. Players need to understand the systems in order to make reasonable choices about their actions.

One-Shot Systems

One of the characteristics of old-school inspired games such as this one is the large number of unique, special-case systems that arise. A given alien beast might have a 20% chance of knocking a human prone with its attacks, for example, or a 1 in 6 chance of swallowing a person it bites. A forgotten research station might be glowing with a deadly radiation that drains away one point of Strength for every ten minutes the PCs stay inside. Players shouldn't be surprised to face these situations. Part of the charm of the genre is that PCs can never be entirely certain of their chances, or wholly confident about what an alien creature or abandoned outpost might do to them. GMs should avoid creating such one-shot systems when more general systems would serve just as well, but they shouldn't feel obliged to transform every peril into something that can be diced out with the rules in this chapter.

Skill Checks

Every stellar adventurer will sooner or later face a situation that can't be resolved with laser fire or rapid flight. Difficult feats of expertise are usually resolved with skill checks.

To make a skill check, the player rolls 2d6 and adds his character's relevant skill level and attribute modifier. If the total equals or exceeds the check's difficulty number, the check is a success.

The relevant skill and attribute modifier will usually be obvious in the situation; attempting to bluff a rogue Perimeter agent would involve Persuade and Charisma, while trying to bend the corroded bars on an abandoned pretech manufactory window would rely on Athletics and Strength. When in doubt, the GM will tell you what to apply.

If you lack even level 0 in the relevant skill, you suffer a -1 penalty to your roll. Awkward circumstances or bad tools might apply additional penalties, though usually not more than another -1. By the same token, exceptionally good equipment or a favorable situation might grant bonuses of up to +2 to the roll, or even more if the stars align perfectly.

The difficulty number of a skill check varies from 6, for the easiest tasks that are worth checking, up to 14 or more for a feat that only a legendary expert could hope to accomplish.

Not every feat requires a skill check. The GM should not bother to call checks for simple tasks, or for tasks that could simply be repeated until they were successful. In the same fashion, some feats might simply be impossible for a character that does not possess the relevant skill at all.

Experts have the unique class ability to reroll one failed skill check of their choice per hour. They must take the second roll, even if it is worse.

Opposed Skill Checks

Sometimes a character will be competing directly against another person, such as in an athletic competition or a game of chance. In this case, both characters make skill checks, and the one who rolls the largest result wins. Ties are rerolled if a tied outcome doesn't make sense. Experts may use their reroll ability on an opposed skill check after their opponent rolls, if their original result is insufficient.

Extended Skill Checks

Occasionally, a single skill check doesn't sufficiently represent a long, complicated effort. In that case, the GM may oblige the character or group to make several skill checks at a given difficulty while attempting to accumulate a certain number of successes. Failure might mean that the effort is wasted, and cannot be continued until circumstances improve.

In an opposed extended skill check, such as a chase, both parties make repeated opposed skill checks. The first one to reach a certain number of successes wins the contest.

You Lack Skills

Some GMs prefer not to use skills in their game, relying instead on the players' wits and a more informal sense of what a character is capable of doing.

For these games, you can still use the skill check rules as normal, with one tweak. Instead of adding a skill to the roll, add a bonus of +1 and +1 more for every three experience levels, rounded down, if it's an activity appropriate to their class or background.

For example, Josiah the 4th level Expert pilot would add +2 to any skill checks to pilot a starship. Lucille the 4th level Psychic would add nothing to her roll, as she has had only a few hours of practice under Josiah's supervision. If the GM decided that some element of Lucille's background or prior activities gives her a knack for the task, however, she'd get the +2 bonus to the roll as well.

This bonus can also take the place of Combat skills for hit roll purposes. If the character has no reason at all to be competent or trained at the activity, apply a -1 penalty to the check or -2 to the attack roll.

SKILL CHECK DIFFICULTIES

<i>Difficulty</i>	<i>Examples</i>
No check	Sprinting over wet grass. Replacing a broken computer screen. Digging a ditch. Cleaning a dirty weapon.
6	Sprinting over a narrow ledge. Fixing a gunshot computer. Building an earthen dam. Cleaning a rusted pistol.
8	Sprinting over a palm-wide beam. Fixing a computer with scavenged parts. Demolishing a house with carefully-placed grenades. Cleaning a corroded laser pistol.
9	Sprinting over a tightrope. Fixing a computer with scavenged parts from a different world. Building a silicon chip factory with Tech Level 2 equipment. Cleaning a corroded psitech weapon.
11	Sprinting up an inclined tightrope. Fixing a computer with scavenged parts from a different world in six seconds. Demolishing a concrete building with carefully-placed sledgehammer blows. Recognizing that an alien weapon is corroded, then successfully cleaning it.
13	Sprinting up a greased inclined tightrope on your hands. Fixing a computer with a native cheese spread. Demolishing a concrete building with your hands. Turning a corroded alien bath attachment into a weapon.

Combat

Into every spacefaring adventurer's life a little caseless ammunition must fall. While prudent starfarers avoid combat whenever possible, there are times when a peaceful solution to a dispute is impossible. When those circumstances arise, it's important that an adventurer be able to exert a little practical self-defense.

The Combat Round

Combats and other tense situations in *Stars Without Number* are divided up into *rounds*. A round is roughly six seconds long. During a round, each character involved takes a turn doing something. When all characters have acted- or chosen not to act- the round ends and a new one begins.

During their turn, a character can both act and move up to 20 meters. An action is the character's main activity for the round, such as making an attack, reloading a weapon, operating a complex device, or some other activity which requires time or attention. A character can give up their action in a round to move an additional 20 meters.

Some actions are considered *free actions*, and can be done at any time, whether or not it's the character's turn. Most of these actions involve psychic powers that trigger semi-automatically under certain circumstances. Others are simply so trivial that they could be done at any time by anyone, such as dropping an object, pulling out readied equipment, or saying a few words.

Initiative

When a fight begins, every participant *rolls initiative*, rolling 1d8 and adding their Dexterity attribute modifier. Participants act in initiative order, highest roll first. In case of ties, PCs act first. If two PCs tie, the closest player on the GM's right side acts first. Initiative is only rolled once, as when all participants have had their turn a new round begins from the top.

On their turn, characters take their actions and can move up to twenty meters. Character can only move once on any given round. For example, they cannot move five meters, use their action to shoot, and then move another ten meters to get to cover.

A character can delay acting if they wish, choosing to save their actions to respond to an enemy. It is only possible to wait for specific actions, such as readying an action to shoot an enemy when they emerge from a doorway, or to use a biopsionic healing effect on an ally who is likely to soon be wounded. It's the GM's decision as to what sort of actions can be readied and what sort of triggers are reasonable.

Making an Attack

A character may use their turn's action to attack an enemy. To attack, the PC rolls 1d20 and adds their relevant Combat skill, the attribute bonus associated with the weapon, their target's armor class, and the Attack Bonus for their class and level. If the total is equal or greater than 20, the attack hits successfully. A natural roll

The Combat Roll

Roll 1d20...

- + *target's Armor Class*
- + *attacker's Combat skill*
- + *attacker's attribute modifier*
- + *attacker's Attack Bonus*

If the total is 20 or greater then the attack hits. A natural roll of 1 always misses, and a natural roll of 20 always hits.

of 1 on the die always misses, and a natural roll of 20 always hits.

A normal, unarmored human is AC 9, but agile or armored characters can have substantially lower armor class. The target's Dexterity modifier is subtracted from their base armor class.

Circumstances can apply other penalties or bonuses to the hit roll. Energy weapons grant a +1 to hit due to lack of recoil, for example, while hitting a target that's under cover might apply a -2 penalty or worse. If the PC has no skill in the weapon he is using, he usually suffers a -2 penalty to hit. These modifiers are cumulative, and the GM is the final arbiter of what merits a modifier.

If the attack hits, the PC then rolls the damage dice associated with the weapon and adds the appropriate attribute bonus. This damage is then subtracted from the victim's hit points. Creatures reduced to zero hit points are either dead or mortally wounded. Note that while you add the relevant skill bonus to a weapon's hit roll, you don't add it to the damage. The only exception is with the Combat/Unarmed skill, which adds its level to both the hit and damage roll.

Movement in Combat

Moving around in a whirling broil of monoblades, shotgun blasts, and laser fire can be hazardous. Characters can move freely around enemies wielding ranged weapons, but a character that has engaged an enemy with a melee weapon grants his opponent a free attack on him if he tries to move away without spending his action making a fighting retreat.

Sometimes characters will want to climb ropes, swim bodies of water, leap pits, or otherwise crawl around the scenery during a fight. Such movement usually requires their full action for the round. Characters who attempt to flee a fight completely might be chased by angry enemies. The chase can usually be resolved by an opposed Athletics check, usually modified by Constitution for anything longer than a sprint. If the fleeing character wins, they get away, and if not, they're cornered or run down by the opponent and must fight.

Movement

Whether by gravcar, riding lizard, sailboat or starship, adventurers tend to get around. It's often useful to have a rough idea of how quickly a group can move overland and how much gear they can readily bring with them.

Movement in Combat

In combat, an unencumbered character can move 20 meters per round, or 40 if they give up their major action. This movement assumes relatively flat ground; if the character needs to climb, swim, or otherwise navigate treacherous terrain, they usually need to use their action for the turn to do so. Exceptionally difficult maneuvers might require an Athletics skill test as well, or cut effective movement rates in half.

Movement rates are doubled on low-gravity worlds and halved on high-gravity planets. Movement in zero-g environments is also halved due to the difficulties of the environment, though those with Culture/Spacer skill ignore this penalty.

Lightly encumbered characters move at 75% of normal speed, and heavily encumbered characters move at 50%.

Overland Movement

Overland movement depends both on the speed of the group and the difficulty of the terrain.

For each hour of travel, the group moves a distance equal to that given on the overland travel speed table. If the terrain being navigated isn't comfortably flat ground, a speed penalty may apply. Grav vehicles and ATV explorers can cross calm water as if it were flat ground. Grav vehicles can also ignore the penalties from some types of low-lying rough terrain, but heavy vegetation, sheer cliffs, and other such obstacles still impede them.

Most groups can't manage more than ten hours of travel out of every twenty-four. The rest of the time is taken up with travel breaks, eating, and sleeping. Most vehicles require refueling with a fresh type B power cell every six hours.

Most tech level 4 worlds have networks of GPS satellites, and any group with a navcomp or a standard-issue vehicle navigation system has no chance of becoming lost. On more primitive worlds,

OVERLAND TRAVEL SPEEDS

<i>Vehicle</i>	<i>Km/Hour</i>
Foot travel	6 / 4.5 / 3 *
Riding beast	6
Motorcycle	100
Groundcar	90
Hovercycle	100
Gravcar	90
ATV Explorer	70
Helicopter	250
Atmoflyer	1200
Gravflyer	1500
Gravtank	120
* Speeds are for unencumbered, lightly encumbered, and heavily encumbered humans.	

TERRAIN SPEED PENALTIES

<i>Terrain</i>	<i>Speed Penalty</i>
Plains / Desert	None
Light Forest / Hills / Badlands	-25% *
Heavy Forest / Jungle	-50%
Swamps	-50% *
Mountains	-90%
* Grav vehicles ignore this terrain's penalty.	

travel may require a Navigation skill check at the start of the day, usually at difficulty 8. For each point by which the navigator fails the check, one hour worth of travel will be in the wrong direction.

The difficulty of the check may increase drastically if the environment is hostile, the sky can't be seen, or equipment is lacking. Plotting a course on the surface of an airless world is one thing, but keeping to a heading while in the acidic mist-filled tunnels of a honeycombed mining asteroid is another thing entirely.

Saving Throws and Hazards

There are times when an adventurer is faced with some imminent unfortunate consequence, and only an iron constitution, unbending will, nimble feet, hardy resilience, or occasional divine favor will help them win through. Saving throws represent the character's ability to evade the worst of a circumstance through personal resilience and luck.

A character's saving throw scores depend on his or her class and experience level, as given on the charts for their class. Saving throws are made by rolling 1d20. If the result is equal to or greater than the relevant saving throw score, the save is a success. Depending on the situation, the danger may be lessened in its effect or even avoided entirely.

Not every danger grants a saving throw. There is no saving throw to resist being struck in combat, for example, and no amount of physical hardiness will save a character that leaps into a magma pipe or stands in front of a gravtank's vortex cannon. The GM determines when a saving throw is appropriate and the benefits of succeeding.

Some situations might allow a choice of saving throws. Avoiding infection by a disease might be either a Physical Effect save to resist the incipient sickness or it might be a Luck save to avoid exposure. In such situations, the player chooses which save to roll.

Most natural hazards allow for some sort of saving throw to mitigate the worst of their effects, as do most hostile psionic powers. Some of the more common natural perils follow.

Exposure to Hard Vacuum

Some characters are unlucky enough to be exposed to hard vacuum. The first round of exposure does no damage, but each round after does 1d20 points of damage, with a Physical Effect save for half.

Falling

Characters take 1d6 points of damage for every three full meters that they fall. The effective fall distance is doubled on high-gravity worlds and halved on low-gravity worlds. A successful Luck saving throw halves the damage taken.

Radiation

Radiation burns are an occupational hazard for those who work on thin-atmosphere worlds near active stellar primaries. Radiation burns can also be caused by malfunctioning ship power grids, cracked alien energy cores, or damaged plasma weaponry. Those subject to dangerous levels of radiation must make a Physical Effect save. On a success, no lasting damage is done. On a failure, no immediate damage is visible, but one day later the character will lose one point of Constitution from sores, anemia, brittle bones, and the other indicia of radiation poisoning. This Constitution loss can only be cured by Tech Level 4 medical treatment and requires 48 hours to restore for each point lost. A clinic or proper medical facility is required for this; ordinary medkits don't have the necessary drugs.

SAVING THROWS	
Physical Effect	This saving throw applies to resisting diseases, poisons, and other tests of personal hardihood.
Mental Effect	Mental effect saves are made to resist most psionic powers and other effects that directly influence a character's mind.
Evasion	Evasion saves apply in situations that test an character's ability to dodge or dive out of the way of peril,
Tech	Tech saves are made to resist the effects of exotic technology, such as alien beam weapons, nanite infections, strange energy fields, or similar enigmatic powers.
Luck	When a character's wellbeing depends purely on dumb luck rather than any effort they might make, a Luck saving throw is in order.

Most severe radiation levels will require a saving throw be made once per day. Truly lethal glows might force the save to be made once per minute, with Constitution loss appearing within minutes afterwards. A character brought below a Constitution of 3 dies and cannot be revived, either with Lazarus patches or biopsionic healing.

Suffocation

A character can go without air for a number of minutes equal to four plus the character's Constitution modifier. This time is halved if the character is performing strenuous activity. A character that runs out of air begins suffocating, and each round they must make a successful Physical Effect saving throw or fall unconscious. An unconscious character will die in five minutes unless air is provided.

Xenoallergies

Alien microorganisms are capricious in their effects, some of them harmless due to targeting a biology that humans don't share, while others are exceptionally dangerous due to their allergenic effects. Most worlds are fairly harmless, but some have biospheres rife with these dangerous spores and pollens. Most natives are descended from forebears who have had the kind of tailored genetic therapy necessary to fight off these specific allergens, but outsiders rarely have that convenience. In many cases, the original therapy regimens are no longer available since the collapse of pretech medicine on most worlds.

Assuming a character is without an atmofilter or tailored antiallergens on such a world, they must deal with an allergic reaction of Toxicity 9, an Interval of one day, and Virulence 1. Each failed saving throw adds a cumulative -1 penalty to all hit rolls and skill checks, with six failed saving throws meaning death by respiratory failure. This allergic reaction cannot be cured or thrown off until the character returns to a more friendly atmospheric environment.

Injury, Healing and Death

Creatures brought to zero hit points are either dead or mortally wounded. For NPCs, this usually means instant death, but PCs usually linger just a little bit longer before expiring, assuming they aren't hit by a gravtank's main gun, thrown into lava, vaporized by a ship's drive discharge, or otherwise completely obliterated.

A psychic with the Biopsionics discipline can attempt to revive a mortally wounded character, as can a medic with a Lazarus patch available. Both such activities require a round's action to trigger the power or apply the patch. Assuming success, the mortally wounded character is now stabilized, and not in immediate danger of death. A stabilized character is still at zero hit points and unconscious. Biopsionic healing can then revive the character and return them to normal capacity, as can a few rare, powerful pretech medical pharmaceuticals. If such resources are lacking, however, the character must have rest and intensive medical care in order to recuperate.

Assuming a medkit or a tech level 4 medical facility is available, a character requires 1d4 days of treatment before they regain 1 hit point and begin to heal normally. If only tech level 3 tools are available, the time required is 1d4 months. At tech level 2 or lower, 1d4 months are also required, but the character must make a successful Physical Effect saving throw at the end of the healing period with a bonus equal to the attending medic's Tech/Medical skill. If the saving throw is failed, the character must repeat the healing process once more.

Diseases and Poisons

The universe is full of unpleasant substances and hostile microorganisms. Diseases or poisons have a Toxicity rating, usually beginning at 7, an Interval at which they harm a character, and a Virulence indicating the number of saving throws necessary to recover from its effects.

When first exposed to a disease or poison, a character must make their choice of either a Physical Effect saving throw or a Luck saving throw. If successful, the character has either resisted the toxin or managed to avoid getting a dangerous dose. If unsuccessful, the character has been infected or poisoned.

After each Interval of time has passed the character suffers the effects of the disease and must make a Physical Effect saving throw. Once the victim has succeeded at enough saving throws to equal the toxin's Virulence, he has thrown off the disease or recovered from the poison. A medic can assist a diseased or poisoned character. A Tech/Medical skill check against the malady's Toxicity can be made at each interval, and if successful, the character's saving throw automatically succeeds.

Healing

A character will heal naturally with time, provided they get adequate nourishment and sleep. Every day, a character regains hit points equal to his level when he first wakes up. If he spends the day doing nothing but resting, he gains additional hit points equal to his level, plus two more for every level of Tech/Medical possessed by his attending physician. Characters can also be healed with



Biopsionic psychic powers or with powerful pretech medical drugs. Such drastic influence on a human's biology can be problematic, and there is a limit to how much strain it can handle. Biopsionics and pretech drugs add points of System Strain to the patient. When a character's System Strain equals his natural Constitution score, he can no longer benefit by those powers. A character's System Strain decreases by one each day as his body adjusts to the recent changes.

Example Diseases and Poisons

Abathian Hellscreamer Venom: Toxicity 10, Interval of one minute, Virulence of 3. At each Interval the victim suffers 1d4 damage. Three failed saving throws mean death from cardiovascular organ failure.

Rothmann's Pox: Toxicity 9, Interval of one day, Virulence of 3. Only psychics show symptoms of this highly contagious disease, which adds a cumulative 1 point of psi power cost to all discipline activations with each failed Interval saving throw.

Vent Rot: Toxicity 8, Interval of two days, Virulence of 3. A dangerous fungal consequence of poorly-maintained atmosphere filters, each failed save reduces Constitution by 2 until cured.

Character Advancement

Adventurers that manage to survive the perils of their trade can expect to improve in their skills and abilities. Most interstellar wayfarers demonstrate a striking capacity for picking up new skills and improving old ones... possibly since the less gifted among them don't survive long enough to show the lack.

Characters are awarded *experience points* by the GM upon accomplishing certain goals, defeating meaningful enemies, or plundering insufficiently guarded wealth. It's often wise to have a word with the GM at the start of a campaign to find out just what sort of activities earn experience in his game; some GMs only award experience for accomplishing story goals, while others might only hand out rewards for acquiring great wealth. Experience point awards for defeating enemies tend to be nominal unless related to some story goal; the usual reward for winning a combat is your character's continued existence.

Once a character has earned enough experience points to gain the next character level, they immediately gain the benefits of the new level, including additional hit points, skill points, and the additional psionic powers of a psychic.

Gaining Hit Points

When a character goes up in level, they gain an additional hit die of hit points. The player rolls both it and their existing hit dice to determine their new total. Their Constitution modifier is applied once for each level of the character. Thus, a 4th level warrior with a +1 Constitution modifier who has just attained 5th level rolls 5d8+5 to determine his new hit point total.

If the new total is less than the old, the character retains the old hit point total. A character's hit points never go down when they rise in level.

Gaining Skills

When a character rises in level, they gain additional *skill points*: 3 for an expert, and 2 for psychics and warriors. These points may be saved for later use or spent in learning new skill levels. A skill must be learned from the beginning, so a character who wanted to buy level 2 in a skill belonging to their class would need to spend $1 + 2 + 3 = 6$ skill points, and train each level in order. A class' skills are listed on the charts for that class.

Trainer fees vary with the level of skill desired. Extremely high skill levels may require the character to self-train at double the listed cost. By the same token, allies and friends of the characters may offer discounts, and characters with the Instructor skill can train any skill they possess up to the lesser of their Instructor skill or the skill being trained.

A character's skill level is limited by their character level; a PC's maximum level in a skill is equal to 1, plus their level divided by 3, rounded down. A level 4 character can thus have a skill at a maximum of level 2 ($1 + 4/3$, rounded down).

SKILL POINTS PER LEVEL

<i>Class</i>	<i>Skill points/level</i>
Expert	3
Psychic	2
Warrior	2

SKILL TRAINING COSTS

<i>Skill Level</i>	<i>Min. Char. Level</i>	<i>Skill Point Cost</i>		
		<i>Class</i>	<i>Other</i>	<i>Trainer Fee</i>
0	1	1	2	500
1	1	2	3	1,000
2	3	3	4	2,000
3	6	4	5	4,000
4	9	5	6	8,000
5	12	6	7	16,000
6	15	7	8	32,000

Gaining Psionic Disciplines

Psychics who rise in level may add one point to their primary psionic discipline and one point to any different discipline. The basic training given all psychics includes the introductory protocols for all of the six common psychic disciplines, and so no special training is required to develop new powers. No discipline's level may exceed the character's level.

If a character reaches level 9 in their primary discipline, they must choose a new primary discipline from among those not yet perfected.

Psychics also gain additional psionic power points as given on their class tables. Psychics add the highest modifier of their Wisdom or Constitution scores to this bonus at each level, down to a minimum of +0 for psychics with modifier penalties in both attributes.

It may be possible for a psychic to learn completely new disciplines if they are able to find a mentor versed in the correct protocols and meditative practices. These disciplines might be redeveloped versions of pre-Silence arts, or they might be entirely new powers devised on isolated worlds. It is at the GM's discretion whether or not the psychic may be able to "trade in" points of their existing secondary disciplines to learn these unique powers.

Starship Travel

Starship travel within a solar system is broken up by *stellar regions*. A stellar region is simply the space around a particular point of interest- a planet and its moons, an asteroid belt, the primary star itself, or the outer rim of the system to name but a few examples.

Travelling within one region, such as from a planet to its moon, usually requires about six hours. Travelling from one region to another requires 48 hours. Travelling between stars requires not only that the ship move to the outer rim region of a system, but that it spend six days in drillspace for each hex of the jump.

All transit time is divided by the rating of the ship's spike drive. A drive-1 rated ship would make the course in the base time, while a drive-2 rated ship would require half the time, and a drive-6 fast boat could do it in only a sixth of the base time required. A ship must refuel after each drill, but in-system travel and operations require no meaningful amount of fuel.

Navigators can attempt to "trim the course" and shorten transit time by running higher energy shears and taking risks with metadimensional currents. For each level of course trimming, the navigation skill check suffers a -1 penalty and the effective spike drive rating of the ship increases by one. A navigator cannot trim a course by more levels than their Navigation rating.

Travelling within a solar system requires Navigation-0 skill, but does not normally require a skill check unless some special hazard is involved or the navigator attempts to trim the course. In the latter case, they must make a successful Navigation/Intelligence check against difficulty 6, at -1 for each level of course trimming.

Making a jump between stars is more difficult, and takes at least Navigation-1 skill and a successful Navigation/Intelligence skill check against difficulty 7. This skill check roll is modified based on the distance to be drilled and the quality of the charts available for the course. A one-hex drill along an uncharted course would be rolled at -4, while a four-hex drill along a major trade route with fresh course readings would be rolled at -2. Calculating a drill course requires one hour per hex to be drilled.

Spike drives have limits on the distances they can reach. A drive cannot drill more hexes in a single jump than the rating of a drive. A drive-3, for example, can make drills of up to 3 hexes in any one jump. Course trimming cannot increase a drive's range.

If a navigator fails a skill check, the GM then rolls on the failed navigation results table, or imposes some misfortune appropriate to the situation.

BASE TRAVEL TIME	
<i>Distance</i>	<i>Time</i>
<i>Within a region</i>	6 hours
<i>From one region to another</i>	48 hours
<i>Interstellar travel</i>	6 days per hex

DRILL CHECK MODIFIERS	
<i>Circumstance</i>	<i>Modifier</i>
<i>Uncharted course</i>	-4
<i>Charts more than five years old</i>	-2
<i>Charts from one to five years old</i>	-1
<i>Charts less than a year old</i>	+0
<i>Distance drilled, per two full hexes</i>	-1
<i>Course trimming, per level</i>	-1

FAILED NAVIGATION RESULTS	
<i>Roll</i>	<i>Effect</i>
3	Catastrophic dimensional energy incursion. Ship emerges around a star within 1d6 hexes of the target destination with drive and all systems destroyed.
4-5	Shear surge overwhelms internal systems. Ship emerges around star nearest to drill origin. 50% chance for each system to be nonfunctional until repaired. If the spike drive fails, treat as if a 3 were rolled.
6-8	Power spike. One system down until repaired, ship stuck in transit for full base time before being able to make another Navigation check. If the spike drive fails, treat as if a 3 were rolled.
9-12	Ship off course. Spend base time in transit, then make another Navigation check.
13-15	Ship off course, but detected early. Make another Navigation check.
16-17	Drill successful, but takes twice base time.
18	Drill successful and on time, by blind luck.

Setting Course

Marcella Jamison is a young merchant navigator plotting out a course for the frontier world of Shiraz. According to the sector map, Shiraz is two hexes away from their current location, and the most recent course soundings are six months old. Marcella's ship has a drive-2 rated spike drive, so it can make the two-hex jump in one drill. The skill check difficulty is 7, +0 for charts six months old, -1 for drilling two hexes in a single jump, for a total of -1 to the roll. Her merchant ship isn't equipped with any special navigation equipment, so she makes her skill check with her basic Navigator-1 skill, +1 for her Intelligence modifier. Assuming all goes well, she'll be on Shiraz in eight days- 24 hours to reach the outer rim stellar region, 6 days drilled out and 24 more hours from the rim to the planet.

Starship Scanning and Detection

It can be a difficult feat to locate a starship within the cold emptiness of a solar system. A sufficiently canny pilot can skulk past all but the most watchful sensor stations.

Detecting Other Ships

The difficulty of detecting another ship depends largely on distance and the other ship's stealth profile. Distance is based on the relative stellar regions of the ships as given in the starship travel section. The base roll for detecting a ship in the same stellar region is a Computer skill check against difficulty 7. If the ship is actively broadcasting a nav signature, as most civilian ships do at all times, this check is automatically successful. Detecting a ship in different stellar region is difficulty 8. This roll can be made once every six hours.

This roll assumes that the region is not naturally difficult to scan. Detecting a ship against the empty background of a system's outer rim is very different from attempting to locate one amid a highly energetic field of electromagnetically-active planetoid rubble. Hostile environments might impose check penalties of up to +4 difficulty or make it outright impossible to scan that region.

A ship that is actively attempting to avoid notice complicates any attempts at detection. In this case, the base difficulty equals the best skill check between the target pilot's Vehicle/Space skill check and the target engineer's Tech/Astronautics skill check, +1 if they are in a different region. Careful piloting and selective energy emission patterning can cause a ship to blend into the background of a region and make it very difficult to detect. There are disadvantages to subterfuge, however; a ship attempting stealth can travel at only half its ordinary speed. Ships that engage in combat light up even the least sensitive scanning arrays. A ship that fires its weapons grants all other ships an immediate free skill check to detect it, without any benefit from a stealthy flight profile. A ship that is actually comes within firing range of another ship is automatically detected. There's simply no way to hide a ship at a few thousand kilometers' distance.

Ships in an inhabited planet's stellar region are almost certain to be discovered. Planetary sensor arrays are usually extremely sensitive, and grant the operator a +2 to their skill check, and allow a check every thirty minutes against any object in orbit. Planetary sensors are somewhat garbled by the local atmosphere and magnetosphere, however, and cannot detect ships in more distant regions. More primitive or less well-equipped planets may not have any special advantage.

It is impossible to detect a ship that has drilled out. In the churning energy fields of metadimensional travel there's no meaningful chance of being able to filter out the tiny signature of a spaceship.

Evading a Detection Lock

Once a ship has been detected, its position remains known until it is able to break the lock. Every six hours, a ship flying in a stealth profile can make a Tech/Astronautics skill check opposed by the detecting ship's Computer skill check. If the evading ship succeeds, the lock is broken and the detecting ship must reestablish it.

The longer a ship has been locked, however, the harder evasion becomes. Because of this, the detecting ship always uses the highest of any Computer skill checks made thus far. For example, an evading ship is detected with a Computer roll of 10. Six hours later, it attempts to evade; the chief engineer rolls 9 on her Tech/Astronautics roll, while the detecting ship's comm officer rolls 7 on his Computer roll. Since 7 is less than the 10 rolled earlier, 10 is used instead- and the lock is maintained.

What Detection Reveals

Standard ship sensor arrays can indicate a ship's hull class, current hit points, drive rating, and general type if it is known hull variant- for example, it can discern the lines of a free trader from a patrol craft, but it may not recognize the specific make of a frigate-sized alien scout ship. If a target ship is disabled and the investigating craft can come alongside, a deeper scan can reveal the presence or absence of living organisms aboard the ship and a crude diagram of spaces and passageways near the skin of the ship. Ships with active power grids can shield against this deep scanning.

Scans of planets and other stellar debris can normally give reasonably accurate readings about temperatures, atmospheric compositions, gravity, radiation, and other information critical to an explorer's health. Getting accurate surface readings of planets can be difficult through particularly thick atmospheres or energetic planetary fields, and explorers can't always expect flawless terrain maps or perfect weather predictions.

Stealth Mode

Marcella arrives around Shiraz' primary star, drilling into the outer rim region of the star. Shiraz is a frontier world with no established space presence, and prudence makes Marcella's captain call for a stealth profile while scanning their immediate region for company. At half speed, it will take the drive-2 ship 48 hours to reach Shiraz, enough time for eight Computer/Intelligence skill checks.

Twelve hours in, they ping a neighbor, their skill check having beaten its stealthed rolls of Pilot/Int and Tech/Astronautics/Int. A cursory scan shows it as a cruiser with a drive-2 rated spike drive and full hit points. At that same moment, warning lights go off on the bridge; the cruiser has detected *them*, and is moving to intercept, with an FTL comm laser demanding that they halt.

Marcella's captain is uninterested in such a conversation. In stealth mode, it's twelve hours back to the edge of the outer rim, where he can drill out. The cruiser has shed its own stealth and will surely catch him by then unless he puts on speed. The captain drops stealth and runs for the rim at top speed. Luckily, his ship's fuel bunkers allow him to drill out without refueling.

Word is sent down to engineering to run the engines in the red, and Marcella is set to calculating a drill course back to safety. If the pilot can keep them ahead of the cruiser long enough to get to the rim, they're home free. If not, the captain is going to have some explaining to do....

Starship Combat

Combat between starships is a brutal gavotte of lasers, spike missiles, assault drones and more exotic hardware, all thrown at the cosmological equivalent of spitting distance.

Modern ECM and jamming technology combine with spike drive phasing to make long-range engagements an exercise in futility. Signature ghosting, echo flares, and other standard defensive hardware overcome even the most sophisticated targeting computers at long distances. As a consequence, starships have to close in to mere tens of thousands of kilometers in order to give their hardware any chance of connecting successfully.

Ships equipped with spike drives also have access to “spike phasing” in order to dodge incoming ordnance and energy. A canny captain must correctly target an enemy’s phase state while placing his own ship out of the way of an enemy’s guns.

The Ship Combat Round

1) Each captain writes down what metadimensional phase his ship will occupy and what phase his guns will target. All ships can fly and shoot into “real space”, phase 0. The maximum phase into which they can fly or shoot is equal to their spike drive rating.

2) The phase choices are shown simultaneously.

3) Pilots determine whether or not to attempt a maneuver, such as evading the battle, attempting a lamprey lock, ramming an enemy, or so forth. Pilot skill checks are made, usually modified by Intelligence. All maneuvers happen simultaneously. Ramming damage is resolved with other damage, after guns have fired.

4) Fire weapons. Weapons on a ship may be targeted at different targets, but all fire in the phase determined in step 1. Every weapon system requires either a gunner or an autonomic targeting program to be loaded. Combat/Gunnery is always the applicable skill and Intelligence the relevant attribute.

If a ship’s gunnery fires into a different phase than the targeted ship occupies, roll 1d6; if the result is greater than the difference between phases, the attacker can roll to hit normally. Otherwise, the shot automatically misses.

5) Apply damage, including ramming results. All damage done in the prior steps is applied simultaneously.

6) Fighter-class ships are destroyed with all hands if brought to 0 hit points. For other ships brought to 0 hit points, the chief engineer must make a Tech/Astronautics skill check at difficulty 8. A ship with no chief engineer can make the roll with a -2 penalty as the craft’s automatic failsafes kick in. If successful, the ship’s power core can be brought down safely, leaving the ship a helpless hulk with no functioning systems. If the roll fails, the ship will explode in 3d6 rounds, killing everyone aboard.

Ship Combat Maneuvers

Evade Combat : To evade an engagement, a pilot makes an extended Piloting test opposed by those who wish to pursue, each pilot adding the Speed of their craft. One roll can be made each round, and a ship can fight normally while it attempts to flee. Once the fleeing pilot accumulates a number of successful tests equal to twice the other pilot’s Pilot skill, they have successfully evaded the enemy. Failing an evasion skill test resets the evader’s total successes to zero.

Fire to Disable: A ship’s gunners can intentionally avoid targeting the most sensitive parts of a target ship’s hull. Attacks are made normally, but any successful hits do only half damage, rounded up. If the target is reduced to zero hit points, it is disabled with no risk of explosion.

Lamprey Lock : Much beloved of desperate and foolhardy pilots, the “lamprey lock” is a technique used to deal with a ship that’s occupying a much higher phase than the pilot’s ship can reach. The enacting pilot attempts to close the distance to mere hundreds of meters between the two ships, trying to get so close that the target ship’s drive envelope is forced to include both ships. Both pilots make opposed Pilot skill tests, adding their respective ships’ Speed. If the defender wins, the maneuver fails and the defender gains +4 on all hit rolls against the enactor for a round as the enactor loses transverse velocity in relation to the defender. If the enactor wins by 3 or more, the lock is attained for that round, and the enacting ship and its weapons gain the defending ship’s phase. If the enactor wins by fewer than 3 points, the lock is unsuccessful, but no penalty is taken. The enactor must make this test each round to maintain the lock.

Remora Lock : A “friendly” version of the lamprey lock, this maneuver involves taking close order with a friendly ship, riding its shift to a higher phase than might otherwise be attainable by the enactor. Success is automatic when attempting this maneuver with a cooperative ship, but the close proximity and high energy emissions seriously degrades a ship’s ECM and creates a much more inviting target of both. Any attempt to hit a remora locked ship gains +2 to hit, +2 more for each participant after the second.

Ramming Speed : Some desperate captains may choose to ram an enemy ship. Assuming the pilot and the chief engineer of the ship share this grim desire, an opposed Piloting skill test is made against the target ship, with each pilot adding his ship’s Speed. All attackers gain +4 to hit a ship attempting to ram. The ramming ship must win the opposed roll by a margin greater than the defending pilot’s Pilot skill. On impact, each ship suffers hit point damage equal to half the maximum hit points of the other ship. This damage ignores Armor and any phase differences. Ramming or being rammed by a ship at least two classes larger causes the instant destruction of the smaller ship.

An Example Starship Combat

The free trader *Hansard* is six hours inbound for Kwande from the system's outer rim when its comm officer picks up a ship's signature. Sensors indicate that it's built along patrol boat lines with a drive-2 spike drive, but it's in stealth and not transmitting an identification code; a bad sign. A worse sign is the way it's oriented on the *Hansard* and is on an intercept vector.

The Hansard comes out of a spike drive drill in the outer rim region. Six hours after arriving, the comm officer can make a Computer skill check to detect any neighbors in the system. The pirate ship is flying stealthed, so the comm officer had to beat the better of its pilot's Vehicle/Space and engineer's Tech/Astronautics skill checks, +1 because they're in the region around Kwande rather than in the outer rim. Fortunately for the Hansard, its comm officer rolled a 10, while the best score the pirates could manage was 8. The pirate ship has been detected, and the Hansard learns its general class, spike drive rating, and hit points.

Klaxons ring as the *Hansard's* computer warns of a successful lock by the patrol boat, which drops its stealth and makes a hard burn for the *Hansard*. There is no reply to the captain's comm lasers, and the free trader is put on red alert. Without the fuel to turn and make a drill out of the system, the *Hansard* is going to have to run past the pirates to the safety of Kwande's planetary defenses. Kwande's system patrol boats are too far away to help in time.

Without extra fuel bunkers, a ship needs to refuel after every spike drive drill. Since the Hansard has a rating 1 spike drive, it's going to take them 48 hours to go from the system's outer rim region to Kwande's region. The pirate ship will take only half that time to reach them, since it has a rating-2 drive.

Twenty-four tense hours later, the pirate ship has closed to combat range. The *Hansard's* pilot fires an intricate sequence of maneuvers to try to drag the merchant ship out of the pirate approach vector, but the enemy pilot sticks tight to the merchant.

The Hansard's pilot is attempting an Evade Combat maneuver. He rolls a Vehicle/Space skill check of 9, +3 for the free merchant's Speed, for a total of 12. The pirate ship rolls a skill check of 8, +4 for the patrol boat's Speed, for a total of 12. The pilot gains no success.

The captain of the *Hansard* has refused to stand down, so the pirates do their negotiation with a sleet of charged particles from their reaper battery. The *Hansard's* spike phasing almost manages to evade the spray of energy, but the pirate gunners are too skilled; fuses pop and blow across the merchant ship's engineering boards.

The pirate ship decides to occupy spike phase 2 and shoot its reaper battery into spike phase 1. The Hansard chooses to occupy spike phase 0 and shoot into spike phase 1. The pirate gunner has an attack bonus of +4, and rolls a 17. The Hansard has an armor class of 6, so $17+4+6=27$, which means the shot hit, since the total equals or exceeds 20. The pirate gunner then rolls 1d6 to see if he can successfully negate the Hansard's spike phasing, and rolls a 2. Since 2 is greater than the

difference between the target phase and the phase the Hansard occupies, the shot hits. 3d4 damage is rolled, and the 6 points of damage is reduced by the Hansard's armor of 2. The Hansard is down to 16 hit points out of 20 maximum.

The pirate ship has a larger spike drive, fuel bunkers to allow it to escape in-system refueling needs, and boarding tubes to assault merchant ships. The *Hansard* has none of these things, but the spare space is not entirely consumed by cargo storage; the twin-mounted sandthrower gun and multifocal laser it fires are a heavier armament than the pirates can mount. The laser shot flies wild, but the sandthrower shot strikes home to score the patrol boat's armored hull.

The Hansard shoots its two weapons with a +3 attack bonus for its two gunners. The laser rolls a 1, and so automatically misses, but the sandthrower rolls a 16. The patrol boat has an armor class of 6, so the total is $16+3+6=25$, which is enough to hit. The spike phase roll was 2, which beats the difference between the pirate ship's phase of 2 and the targeting phase of 1. The pirate ship takes 8 points of damage, less 5 for its armor, and is down to 22 hit points out of 25 maximum.

The merchant carries heavier weapons, but the patrol boat is tougher and faster. The *Hansard's* captain still struggles to get away as the ship's power plant whines with the drain of lasers and maneuver jets.

The pirate ship occupies phase 2 and shoots into phase 0, but this turn the Hansard is occupying and shooting into phase 1. The Hansard's pilot makes another check, but fails to beat the pirate ship; he makes no progress in evading. The pirate shoots its reapers but misses with a 4, while the Hansard scores a hit with its multifocal laser, doing 2 points of damage. Since the multifocal laser has the AP 20 quality, it ignores the 5 points of the patrol boat's armor, allowing the full damage through.

Overmatched by the pirate ship's superior gunnery and armor, the *Hansard* is a smoke-filled abattoir by the time a stuck maneuver jet suddenly launches it out of the pirate ship's intercept vector, buying it the precious time to flee while the pirate ship turns. If the patrol boat hadn't been shooting to disable, the merchantman would be a steadily-expanding cloud of metal and gas by now. As it is, the Kwande system patrol will be able to rendezvous with them before the pirate ship can catch up. Doubtless cursing their misfortune, the pirates shift to burn for the outer rim and stealth to avoid reprisals.

After a few more rounds of exchanging gunfire, the Hansard's pilot finally manages to beat the pirate pilot for two tests in a row. These two successes are equal to twice the enemy pilot's Vehicle/Space-1 skill, so the Hansard escapes combat range. Moving within a region to re-engage takes a base of 6 hours, or 3 with drive-2, but by that time Kwande patrol ships will have been able to catch up with the Hansard. The pirate ship's armor defeated most of the Hansard's weaponry, but it still took significant damage from the merchant's guns, and now has nothing to show for it.

Starship Maintenance and Repair

Running a starship is not cheap. Even the crudest deck ape or engine snipe expects to be paid for his work, and highly trained technicians and navigators expect commensurately higher wages. Aside from personnel costs, there is the constant drain of money for fuel, replacement parts, and the countless petty fees that worlds inflict on ship captains in order to extract their share of interstellar lucre. It is no surprise that many freelance ship captains are somewhat less than particular about the sorts of work they will do, if only to keep their ship flying.

Making Payroll

A ship costs a hundred credits per day, per crewman, just to cover the payroll. This is a rough approximation meant to cover the sweep between a deck ape's modest wages and the high expense of a trained navigator. If a captain manages to snare some unusually competent crewmen, he can expect his payroll costs to rise accordingly. Personnel costs are one of the major reasons that most civilian ships fly with as few hands as they can practically manage.

Refueling

A ship must be refueled after each drill, no matter how short. If the ship has been equipped with fuel scoop fittings, they can harvest and refine the necessary hydrogen from any gas giant or solar primary. This harvesting requires four days, however, so given the cost of payroll, it's usually more economical to purchase bulk hydrogen from a refueling station, such as exist in almost every system that has a starfaring presence. Refueling from a station costs one hundred credits per drive rating. This cost is multiplied by two for frigates, four for cruisers, and eight for capital ships. Refueling at a station can take as little as six hours, once the ship reaches the stellar region in which the station operates.

Ship's Stores

Every ship requires food, water, and atmosphere refreshment. A ship's normal complement of stores is sufficient to keep its maximum crew fed and oxygenated for fourteen days, or a lesser number for a correspondingly longer period. One day worth of stores for one person costs 20 credits at most supply stations.

Maintenance

Things break. Starships are no more immune to this verity than anything else devised by humanity, and the ordinary operation of a starship inevitably results in wear, decay, and breakage. A captain can expect to spend about 5% of a ship's price each year in maintenance and replacement costs. These charges usually happen at the worst possible time, and ignoring them applies a steadily-increasing penalty to all attack rolls and skill checks made with the ship's equipment equal to -1 per yearly maintenance fee skipped. Once the maintenance debt equals half the ship hull's base cost, the ship is simply too unspaceworthy to fight or drill, and likely a hazard to anyone aboard.

REPAIR MATERIALS		
<i>Hull Class</i>	<i>Cost per HP</i>	<i>Cargo Space per HP</i>
Fighter	500	1 ton
Frigate	1,000	2 tons
Cruiser	2,000	5 tons
Capital	4,000	10 tons

Repairing Battle Damage

Repairing battle damage tends to be cheaper than regular maintenance, paradoxically; most of the really expensive maintenance costs come from repairs and upkeep to the spike drive, power plant, and main system core, all of which are almost never hit in combat until the entire ship has already been riddled. The cost for sufficient materials to repair one hit point worth of ship damage depends on the hull class of the ship. Fixing a shuttle up requires substantially less plating and circuitry than repairing a battleship breach.

The table above gives the cost per hit point and the amount of cargo space required to store the materials. If appropriate spaceyard facilities are available, up to ten hit points a day can be repaired, with a labor cost of 1,000 credits per hit point. Larger amounts can be repaired in shorter periods, but this will require moving large numbers of workers off existing projects, and can often be prohibitively expensive when not under wartime exigencies.

If no spaceyard is available and the ship must make repairs in deep space, the chief engineer makes a Tech/Astronautics roll modified by Intelligence. For each point by which he beats difficulty 11, one hit point worth of damage can be repaired. Emergency repairs can be made during a lull in a battle. Each hour, the chief engineer can roll Tech/Astronautics. For each point by which he beats difficulty 8, one hit point of damage can be repaired- but these temporary repairs will fail within 24 hours, and must be re-repaired at the normal pace and with additional materials.

Repairing Damaged Fittings and Weapons

Occasionally a specific ship system is brought down, usually due to damage from a drill mishap or some exceptionally unlucky shot in battle. If a shipyard is available, a disabled fitting or weapon can be repaired for one-quarter of its base price. If the spike drive of a drive-1 rated ship is brought down, it can be repaired for one-tenth the cost of the base hull. This usually requires 1d4 days for any particular system.

If a ship must make these repairs in space, it requires the use of at least one hit point worth of repair materials and a successful Tech/Astronautics roll against difficulty 10, or 12 if the spike drive needs repair. One roll can be made for each day of effort, and the system is jury-rigged back to operation once the roll is a success. Such repairs are never quite as good as what can be done in a spaceyard, and if the system is disabled once more it cannot be repaired outside of a proper spaceyard. Most prudent captains make for the yards as soon as circumstances allow for more permanent repairs.

CHAPTER FIVE

THE HISTORY OF SPACE

The default setting of *Stars Without Number* is a far future age in which the sprawling, glorious domain of human space has been reduced to a scattering of squabbling powers and long-lost worlds. The ancient domain of humanity has been shrunk by the collapse of the psi-powered Jump Gates that once stitched the remote regions of the frontier into the teeming worlds of the human core. Now, almost six hundred years after the catastrophe that ended the Golden Age of Man, new hope rises from the wreckage of a fallen empire.

In the Beginning

Humanity's interstellar history began in a musty instafab laboratory on a remote coast in northern Greenland in the year 2108. A small army of jury-rigged microfab plants and hotwired autofacs had been churning for years, painstakingly realizing the plans of their creator. Dr. Tiberius Crohn was an insular lunatic of the first water, a laughingstock among physicists and a regular font of absurd claims. Were it not for his admitted talent at wrangling autofacs he would likely have vanished into the twenty-second century's faceless proletarian mass without so much as a ripple.

His talents had gotten him the parts and resources to establish his laboratory in the radioactive wilds of Greenland, not far from the hot zone left by a missile from the Russo-European War. The glow masked the peculiar emissions from his test units, but in 2108 his work finally reached fruition. Crohn had invented the spike drive, the faster-than-light engine that would lift humanity to the stars.

Even now, a thousand years later, researchers still wonder how Crohn managed to devise the mathematics and theories that supported the spike drive's creation. Some of the axioms involved defied all perceptible reality, and the theories made certain assumptions about the fabric of the universe that spun off at least a dozen new religions within the first two hundred years of the discovery. The spike drive was a window on a universe far stranger than experimenters had thought possible.

Through a delicate gravitic twisting of the universal substrate beneath a ship, the spike drive drove it "upward" through a spectrum of dimensional frequencies. The ship vanished from mundane, "luminal" space and was thrust into the metadimensions. These inchoate realms of vast energy currents and formless masses were extremely hostile to unprepared ships, but their gravitic currents

propelled a ship at speeds impossible in the mundane universe. Suitably massive objects such as stars cast a "shadow" into these metadimensions, forming both navigational beacons and anchor-points that enabled transit up and down the dimensional spectrum. So long as a spike drive had a star to launch from and a star to bring it down, it could ride the metadimensional currents in a headlong rush of superluminal speed.

The initial transit along a course was always the most dangerous. The metadimensional currents were unmapped on those routes, and a navigator had to make regular course corrections in hope of finding a current that would bring them to their course before the spike drive's protective bubble broke down in the metadimensional environment. Once the initial journey had been made, course rutters could be shared with other ships. So long as ships regularly made the transit, any shifts in the currents could be recorded. If a route lay fallow for more than a few years, however, the slow creep of currents would render the rutters worse than useless, and a fresh course would need to be plotted by some brave crew.

Crohn's discovery was announced by the sudden launch of his retrofitted spacecraft-laboratory from the Greenland hot zone. A number of orbital weapons platforms attempted to bring it down, but the spike drive was able to shift the ship's mass just barely out of phase with the incoming lasers and particle beams, leaving them to pass harmlessly through the ascending vessel. Earthside tracking stations followed him out to the edge of the solar system, dutifully recording its impossible velocity. At the very rim of the system the sensors picked up a strange gravitic surge, and he was gone.

He returned thirteen days later, broadcasting a radio transmission that not only included data on Alpha Centauri that could only have been acquired through on-site surveying, but also included the necessary data for the reconstruction of the spike drive. Between the observations of the tracking stations and the content of the signal, there was no doubt of it- mad old Crohn had actually done it.

Even today, no one is entirely certain how he managed it. A prototype-grade spike drive would have required six days of metadimensional travel to reach Alpha Centauri and drill down into mundane space. Crohn claimed to be alone aboard the ship, but such would have required him to remain awake and navigating the uncharted drill course for six straight days, all without any

hint of prior experience. The creed that later became known as the Book of the Sky refers to it as “the Night Journey of the Prophet Tiberius” and considers it the founding event of the faith. Tiberius himself promptly drilled back out into metaspace once his transmission had been sent. He was never seen again. To this day, thirteen known religious sects are convinced that he was translated directly into the presence of God as a fitting reward to the opener of the celestial ways.

The First Wave of Colonization

Exclusivity was impossible with this new discovery. Overnight, every industrialized nation on Earth began a frantic rush to build spike drive-equipped starships, each nation fearing to be left behind in claiming the stars above. Paradoxically, earthside tensions faded rapidly as the disposition of this spit of land or that patch of oil seemed to be trivial compared to the wealth that awaited in the sky.

Initial exploration revealed that the spike drives had a maximum range before the corrosive effect of the metadimensional environment fatally degraded their protective bubbles of mundane space. It was necessary to hop from star to star, reaching more distant stellar bodies by progressive advance. In the course of these explorations numerous exotic planetary bodies were discovered. The first one habitable by human beings was a barren mudball with an oxygen-rich atmosphere discovered in 2113. Dubbed Renaissance by its Greater European discoverers, it drove the other Terran nations outward in an even greater frenzy of exploratory acquisitiveness.

Pan-Indian scouts discovered the first life-bearing world in 2150. The primordial soup that covered the water world of Pranashakti served as a research subject for a generation of xenobiologists. The excitement was only heightened when an American survey craft discovered the ancient alien ruins on the mist-shrouded moon of Typhon. Their creators had vanished more than 40,000 years ago, but the scanty remains showed evidence of a technologically sophisticated culture and a humanoid anatomy not wholly unlike that of mankind.

This First Wave of colonization sent humanity in a steadily expanding sphere from the green fields of Terra. By 2200, most habitable worlds within a year’s spike drive travel had at least a handful of human inhabitants. Numerous political and religious splinter groups took to the heavens once asteroid mining brought the price of a spike drive-equipped starship within the reach of a large corporation. Humanity was growing beyond the reach of its leaders.

Retrenchment and the Terran Mandate

The governments of Terra grew increasingly concerned with their far-flung colonists. Even the fastest spike drive courier couldn’t reach the Rim worlds in less than four months, and projecting military force at such a distance was beyond the power of all but the strongest nations. Rather than let their colonists slip entirely out of their control, the greater powers on Terra agreed to form the Terran Mandate, an organization dedicated to policing human space and exerting the authority of Terran governments over the far-flung colony worlds.

Furthermore, expansion beyond the current Rim worlds was forbidden. Splinter groups, cults, and microcultures were required to live within the pale and were forbidden to colonize worlds of their own for reasons of “social harmony” and “interstellar security”. More than a few of these groups defied the new Mandate and sought worlds beyond their reach in the far dark. Deprived of the usual sources of support, most were never heard from again. Even with these new limits, the Terran Mandate was hard-pressed to contain the colonial worlds. There was little in the way of actual fighting between the colonies, as few had the ships or manpower to spare, but here and there the more zealous splinter groups or dedicated ideologues could not bear to live in peace with their neighbors. The Mandate kept a loose sort of discipline over the Rim worlds but by the year 2260 direct control was tenuous at best.

MES and the Psychic Authority

It was during the peak of the First Wave, in 2240, that the first instances of a frightening new syndrome appeared in the children of starship crew members. Perhaps one in ten thousand of these children would begin to exhibit strange and inexplicable powers. Some time around puberty, abilities manifested that ranged from an intuitive vision of the immediate future, to inexplicable mind-reading, to powers of superluminal teleportation. Children who exercised these abilities invariably suffered progressive and permanent neural damage leading either to death or permanent insanity. A dozen uses, two dozen... sooner or later the damage overwhelmed the victim. Only by completely avoiding use of these powers could a child’s mind be saved.

Dubbed “Metadimensional Extroversion Syndrome”, or “MES” by researchers, these subjects were gathered for extensive testing and examination. Parents were told that the children would be taught ways of controlling and suppressing their abilities, but most modern researchers believe that some among the children were used as guinea pigs in terrible experiments meant to quantify this new power. Whatever the means, the investigators soon learned that “Messes” were actually serving as living channels for waves of metadimensional energy.

The power was shaped and focused by the wielder’s neural pathways. Mere meat was never meant to endure the kind of energies that boiled through a Mess, and neural pathways were left scorched or burnt out entirely by use of the powers. Every test was destructive. The only question was whether repeated use of the powers would kill the Mess’ body first or take their sanity. Researchers also discovered that once the energies had finally burnt out a victim’s mind, the charred brain pathways were effectively immune to further damage. An insane Mess, or “feral” could use their powers with impunity- and usually did.

It wasn’t until 2275 that these shadowy researches finally bore fruit. The damage to a Mess’s mind could not be avoided, but by individualized programs of meditation, focus, and mental training, the damage could be routed through less critical areas of the brain. A properly-trained “psychic”, as they were now called, could use their powers extensively before the charge threatened to

overflow their existing channels and they were required to rest and recuperate.

Formulating these programs of study required a trained psychic mentor to shape the basic curriculum into the correct sequence of meditations for a given pupil. Despite the best efforts of researchers, it proved impossible to impart this education through recorded means of instruction. A living, psychically-active tutor properly educated in the training protocols was mandatory in teaching new psychics.

In an attempt to control the provision of psychic mentors, the Terran Mandate inaugurated the Psychic Authority. The PA grew to be a quiet but pervasive organization throughout human space, taking young MES sufferers into its care for training. The rarity of MES left psychics largely as figures of mystery and no little fear to less gifted humans. Psychics could often make vast sums of money with their powers, but many worlds established sharp restrictions on psychic activities- and then often employed government-sponsored psychics who could ignore the strictures.

First Contacts

As these changes rippled through human culture, the species found itself no longer alone in the cosmos. The steady expansion of human space discovered more than empty ruins on several habitable worlds. The Young Races such as the Kont and Ualub were found inhabiting their ancestral worlds, diligently building their way towards Bronze Age technologies. Some species seemed to be the decaying remnants of a former empire, such as the handful of used-up worlds that housed the weary race of Mettau and their cities of dancing glass. These Elder Races had all had their time in the sun, tens or hundreds of thousands of years ago, only to fall prey to intercine strife, vainglorious experimentation, or sheer cultural ennui.

Some of these alien races were strong and vigorous still, though usually fresh from their own technological youth. A few short, sharp border wars usually settled matters in humanity's favor, and even those wars that were not so successfully prosecuted lost mankind only a few worlds within easy reach of their rivals. More often, these races formed uneasy trade pacts with humanity, exchanging examples of strange alien technology and art for the science of human worlds.

The majority of sentient alien species that humanity discovered shared roughly similar humanoid dimensions. Called "the Like" by xenobiologists, controversy still bubbles over the seeming prevalence of humanoid form among alien races. Some scientists suggest that the humanoid shape is simply the one most suitable to the expression of sentience. Others find this explanation too simplistic, and believe that humanoid shapes are simply most suitable to the kind of human-habitable biomes that draw the most interest from human explorers. Further exploration might reveal legions of supercondensed life forms in the core of gas giant worlds, or flocks of hydrogen-based webs floating in the darkness between stars.

Some species owe nothing to human form. These Others are alien in a way that no oxygen-breather could possibly be. Some are composed of silicon or alien earth compounds, such as the Lithomorphs and their planetoid-ships. Others are congeries of spherical atmosphere-bubbles, or sentient interference-patterns set up in the oceans of an ammonia-covered liquid world. The Others are almost invariably too different in mind and needs for humans to communicate with them. Their acts of violence are inexplicable and seemingly random, and their purposes defy human comprehension. Psychics who attempt to contact the mind of an Other risk their sanity under waves of awareness utterly unlike the thoughts of a fleshly brain.



Pretech, Psitech, and the Jump Gates

Psychic Authority researchers had not halted their study of MES energies after their initial training breakthroughs. Official histories credit the discoveries to the courage of a few psychics willing to conduct destructive, dangerous experiments on their own minds. Legends speak more of criminal psychics and bewildered young Messes “encouraged” to cooperate in experiments that eventually claimed their sanity or their lives.

Whatever the source of the data, the Psychic Authority was able to formulate new forms of psychic power. These abilities were usually very subtle and esoteric, microscopic adjustments of ambient universal constants that allowed for the manufacture of materials and products that were simply impossible to create with technology bound to the mundane world’s laws. Atoms and molecules danced to the will of these fabricator psychics, and new wonders were born from the factories of humanity.

The introduction of psychic fabrication marked the development of “pretech”, the high science and artifice of the Golden Age of Man. Pretech artifacts were marvelous works, most of them performing some miracle of energy manipulation or material science. Pretech spike drives doubled the maximum reach of a drill course, and pretech drugs and biotech gave humankind several centuries of hale good health before age might claim them.

The greatest accomplishment of pretech, however, was in the development of “psitech”; a complex melding of psychofabricated pretech components and psionically-active materials. Psitech devices could channel and amplify a psychic’s abilities to a remarkable degree. Psitech was never common, given the rarity of psychics themselves, but it found regular employment in pretech manufactories.

The greatest accomplishment of psitech, in turn, was the development of the Jump Gates. These massive rings of psitech resonators floated at the far rim of a solar system, wide enough to receive the slowboat freighters that lumbered out from planetary orbits. With the help of a choir of master psychic teleporters, these ships would be hurled for scores of light years across the galaxy, emerging from a Jump Gate held in waiting at their destination point. The weeks or months of spike drive travel that would otherwise be required were compressed into a few days.

The Jump Gates quickly replaced spike drive travel throughout the core regions of human space. The only check on their expansion was finding the necessary number of master teleporters to power them, and the great expense of shipping components out to more distant worlds unable to fabricate them on-site. By 2450, almost all core worlds were served by Jump Gates. The ease and cheapness of mass interstellar transport caused some worlds to specialize as agricultural planets and other worlds to rely on interstellar food imports.

By 2600, spike drives were antiquated technology, found almost exclusively along the frontier of human space where Jump Gates were too expensive and economies too primitive to justify their use.

The Second Wave and the Golden Age of Man

By then, the Second Wave of human colonization had reached its peak. The development of the Jump Gates had allowed the Terran Mandate to project its military strength far more easily, and the prohibitions on expansion had been loosened. By 2600, the frontier of human space extended almost ten years of spike drive travel away from Terra. Even after taking Jump Gates as far as possible, a fast pretech courier ship required a year to reach the farthest colonial worlds.

The Jump Gates allowed for massive numbers of colonists to flee the stultifying bonds of stratified Terran society. Over four billion people left Terra over the course of the Second Wave, most of them sent gladly by governments that were more than willing to dispose of their more troublesome subjects. It wasn’t until late in the Second Wave that the Terran Mandate began to realize that it simply didn’t have the manpower necessary to police the colonial worlds. Even with the overwhelming technological advantage of Terran fleets, there were simply too many colonies and too many colonists to maintain direct control.

The colonies realized this as well, starting around 2450. There was rarely an explicit rebellion against the Mandate; most often it was a disobedience of slow decay, with tax shipments becoming intermittent and then absent, and Mandate orders obeyed first slowly and then not at all. The Mandate fleet struck a few of the most valuable recalcitrants, but it was a rear-guard action. The Terran Mandate had grown itself beyond its ability to maintain control.

In the wild void of the frontier, spike drive armadas and petty stellar kingdoms formed to settle ancient arguments between ideologies, religions, and simple differences of ambition. Maltech research began to take root on more isolated worlds, with forbidden research into unbraked AIs, replicant nanotech, and weapons of planetary destruction. Some worlds began to experiment with human genomic modification beyond anything that convention had permitted. These eugenics cultists sought the wholesale improvement of the human genetic legacy despite the terrible costs in maladaptive mutation and instability. Forces of the Terran Mandate’s Perimeter agency tried to contain these researches, but often were simply too few and too poorly supported to do more than report on events.

The Golden Age of Man was already strained by the pressures of these squabbling worlds and a Mandate grown senile. Its deathblow was yet to come.

The Scream and the Silence

In 2665 a massive wave of metadimensional energy washed over human space. Spike drive craft in metaspace were annihilated instantly, and in the blink of an eye, every psychic in human space immediately suffered the consequences of catastrophic psychic burnout. The majority died instantly, with the handful that remained raving in the grip of incurable madness.

Later reconstruction placed the origin of this “Scream” somewhere in the Veil Nebula, but no records exist of any successful investigation. Too much collapsed too quickly for any sort of exploratory expedition to be sent. Humanity was suddenly stripped of every psychic resource. Without living mentors, new generations of psychics could not be trained without recreating the entire laborious research corpus of the now-erased Psychic Authority. It would take generations to mold functional mentors out of the untrained mass of native psychics.

There was no time to recreate the necessary training. The Jump Gates were dead, and the core worlds of human space collapsed with them. Countless colonies that relied on the bulk produce of agricultural worlds were left starving within months, their shipyards overrun by the desperate and ruined in the convulsive fighting over the few remaining spike drive ships. There was no possible way to feed a world of millions with the limited freight capacity of spike drive ships; only the Jump Gates and their massive slowboat freighters could move such masses of cargo, and the slowboats were too big to be retrofitted with spike drives- even if they could cross the stars quickly enough to make a difference.

Echoes of the disaster rippled outward. The frontier regions were still too poor and primitive to afford Jump Gates, so the worlds that remained on the edge of human space were forced to supply their own population with food and other necessities. Some of these worlds relied on small shipments of vital supplies from the core worlds. These luckless planets died when their motherworlds perished. Others were more self-reliant, but few of these had the necessary resources to build spike drive ships of their own. Those few worlds that were able to construct the ships struggled as their psitech became useless and their shipments of vital core world components stopped.

Human space had collapsed into a welter of isolated worlds. Interstellar travel fell to the handful of spike drive ships that could be kept running on scavenged components and half-derelict spaceyards. The Silence had begun.

The Silence Ends

For almost six hundred years, humanity has been slowly recovering from the consequences of the Scream. Many frontier worlds have collapsed into barbarism and balkanized warfare. These “lost worlds” have sufficient resources for agriculture and life, but lack the fossil fuels or radioactives necessary to bootstrap modern technology. Some have even forgotten their origins or have had them obscured in the haze of legend and myth.

Other worlds have been more fortunate. These planets have been lucky enough to have the resources necessary to sustain a rough and

ready level of technology. Their fusion plants are bulkier than the pretech that existed before the Scream, their spike drive engines are slower and more unstable, and the medical technology is working well if it can give the population even a hundred years of good health before death claims them. Still, these worlds have managed to devise methods for doing without the esoteric disciplines of the psychic fabricators and are slowly ramping up their production of spike drive ships as their techniques improve. This “postech” may be inferior, but after the Silence it can be replicated in a way that pretech cannot.

A few worlds have even managed to rediscover the basic techniques of psychic mentorship. The fabulously subtle and sophisticated disciplines necessary for recreating the old pretech manufactories are still long-lost, but these new academies are at least able to teach their students how to channel their powers in relatively safe and useful ways. Some worlds guard these secrets jealously, but others make substantial profit out of training foreign psychics sent by neighboring worlds. A few academies operate without any governmental supervision at all, willingly teaching their secrets to anyone with the money or a compatible ideology.

Stellar domains have begun to form around the most powerful worlds. Projecting more than a few tens of thousands of troops to a neighboring world is far beyond the abilities of most planets, so these domains tend to be loose confederacies of like-minded worlds, or else sparsely-populated colonies held under the ruthless control of a vastly larger and more powerful neighbor. Most of these domains are held together by a glue of ideology and trade benefits, and border skirmishes are becoming more common between rival space empires.

The alien neighbors of humanity have not been idle during the Silence. The Scream appears to have affected psychically-active races as badly as the humans were wounded, but those species that were not so vulnerable have expanded into human space at several points on the frontier. Some have even gone so far as to seize human worlds for their own.

Now, in the year 3200, the fragile web of interstellar commerce and exploration has been reformed. Countless worlds remain locked in the darkness of the Silence, awaiting the bold merchants or reckless explorers willing to return them to the embrace of interstellar humanity. And if these brave souls should be rewarded with the ancient wealth in salvage and data so long trapped on these worlds, who is to say that they do not deserve it?

Year	
2108	The spike drive is discovered by crank scientist Dr. Tiberius Crohn. Humanity moves almost overnight from a handful of science stations on the solar system's inner worlds to all-out interstellar exploration. Numerous Terran governments seek the resources of new worlds.
2110	Several scout craft are lost while learning the limits of the spike drive. The dangers of excessive frequency climbing are recorded by survivors.
2113	The first habitable extrasolar world is discovered by the scout ship <i>Magellan</i> . The <i>Magellan</i> 's patrons promptly claim the world for Greater Europe and name it Renaissance.
2120	Pranashakti, the first life-bearing alien world, is discovered by a Pan-Indian scout ship. The organisms consist solely of plant analogues and some primitive marine life, but a generation of xenobiologists finds work in analyzing it all.
2130	The development of asteroid mining technology provides vast amounts of raw materials to Earth's orbital shipyards and factories. Ship prices plunge, and numerous smaller organizations and states become capable of stellar exploration.
2150	The ruins of an advanced alien species are discovered on Typhon, an otherwise unremarkable gas giant moon. Archaeologists date the ruins to approximately 40,000 BCE. Dubbed "the Watchers" for the eye-like circular motifs on the ruins, few details are learned about the species.
2200	The First Wave of human expansion reaches its peak. Most habitable planets within a year's travel time from Earth have been successfully colonized, many by small religious or ideological groups. Terran nations begin to forbid further exploration for fear of being unable to maintain control over their offworld colonies over such distances. The Terran Mandate is organized by Earth's superpowers in order to ensure that Terran control of the colonies continues.
2240	"Metadimensional Extroversion Syndrome" begins to manifest in certain fifth-generation spacers. Occurring most often around puberty, the abilities exhibited by MES victims seem flatly impossible by normal scientific measure- telepathy, teleportation, precognitive flashes, and other abilities that defy understanding. The syndrome is inevitably fatal unless the victim avoids all use of their abilities.

Year	
2260	Some colony worlds begin to grow restive, and there are incidents of skirmishing and piracy on the frontier. Few disputes are over resources, but ideological and religious conflicts become more common. The Terran Mandate struggles to deal with the four-month message delay between Earth and the farthest colony worlds.
2275	Researchers on several deep-space colonies begin to develop methods for controlling the advance of MES, allowing its victims to use their abilities without inflicting permanent brain damage on themselves. The lives lost in this research are never fully numbered, but Terran governments rapidly move to control the research and training under the aegis of the Psionic Authority.
2280	Properly-trained MES carriers, known commonly as "psychics"- or more casually, as "messes"- begin to use their abilities to assist governments and private enterprise. Numerous fields begin to benefit from the assistance of MES subjects, ranging from telepathic mental health providers to precognitive industrial managers. The Psionic Authority begins to experiment with more focused, industrially-useful psionic disciplines. Again, the cost in lives is undisclosed.
2315	The Psionic Authority perfects the first jump gate. A massive ring of psitech placed at the periphery of the solar system, the gate employs a choir of over fifty adept teleporters to instantly translate ships to a matching gate at Renaissance. Gate dispersal is slowed by a lack of master teleporters, but eventually the transit time between Earth and the frontier is reduced to two days. The Earth nations lift the ban on further exploration now that their effective control is enhanced.
2330	The Second Wave of human colonization begins. Spike drive ships become all but unknown within the core worlds as the jump gates allow cheaper system ships to travel between the older colonies.
2350	Psitech-enhanced manufactory abilities and precognitive surveyors vastly increase the rate of viable colonization. Almost two billion humans leave Earth for the wealth and freedom of the colony worlds. The Terran Mandate begins to realize that they now lack the manpower necessary to maintain control over so many colonies, even with the reduced transit time.

Year	
2400	Obedience to Terran governments is now a polite fiction on the frontier, in those cases when it is acknowledged at all. The first stellar unions begin to form. Some neighboring worlds resort to war, but most colonists see no need for fighting with so many unexploited resources.
2450	The Second Wave is at its peak; it is the Golden Age of Man. The Terran Mandate has largely given up on exerting control over the frontier colonies, and now concentrates simply on neutralizing threats to the core worlds. Every description of human civilization and ideology can be found somewhere in human space, and cultures experiment with new forms of social organization. Psitech supplements normal technology to produce enormous abundance for even the poorest colony worlds.
2460	Human gengineering becomes common on some worlds as societies attempt to improve their members. Advances in longevity and health spread widely, but attempts to significantly improve human capabilities invariably bring serious drawbacks from system strain and unanticipated side effects. Still, some of the more zealous cultures are willing to accept these consequences in pursuit of the "perfect human".
2500	Jump Gates begin to reach the frontier. Major systems are the first to receive them, while most of the minor worlds are still reliant on spike drive ships. The furthest reaches of the frontier now extend ten years of spike drive travel from Earth. Population growth levels off and begins to decline with the increasing wealth of the colonies.
2600	Spike drive ships are now somewhat antiquated, serving a vastly reduced exploratory effort and as militia ships for the defense of local systems. Almost all core systems of importance are now linked with jump gates. Psitech has permeated even very basic items of technology. Large-scale warfare between worlds is almost unknown.
2665	The Scream erupts from somewhere within the Veil Nebula. Reconstructions of the event suggest that it was some form of faster-than-light psychic emanation, the wave propagating from one end of human space to the other within seventeen minutes. The Scream inevitably rendered a psychic either dead or hopelessly insane. The Jump Gate network collapses. A period of stellar isolation and chaos begins, now commonly called "the Silence".

Year	
2700	Countless core worlds die as they are cut off from vital food and technical supplies. Psitech manufactories are crippled, and only a relative handful of spike drive ships can be fabricated before the industrial base erodes. These ships band together for security while searching for resupply and become the progenitors of today's Scavenger Fleets.
2705	Frontier worlds fare better than core planets. More spike drive ships are available, and those worlds that have yet to receive Jump Gates were still devoting effort to autonomous agriculture and industry. Even so, the sudden loss of every human psychic leaves their psitech equipment and industries largely useless. Many frontier worlds devolve to survival-level subsistence.
2900	Attempts are made to recover the techniques of psychic training. The complete absence of any experienced psychic trainers hampers this effort, and the cost in psychic lives to recreate this training is enormous. A few worlds are successful in developing crude training programs, but most societies abandon the effort in the face of more immediate needs.
3050	The Silence starts to lift. Those worlds that did not experience a terminal collapse after the Scream finally begin to perfect techniques of large-scale manufacturing that do not rely on psitech. Even the most sophisticated training programs can no longer replicate the narrow and esoteric talents of pre-Silence psychic fabricators.
3100	Spike drive ships begin the remapping of drill courses between stars. With almost five centuries of neglect, the pre-Silence rutters have become useless. The steady shifting of dimensional layers has rendered old course soundings dangerously inaccurate. All of the drill courses must be rediscovered through trial and potentially fatal error. Few Scavenger Fleets cooperate in sharing their course data due to fears of competition.
3150	Stellar unions start to form around the strongest worlds. Exploration continues, often in the hands of small traders and scout crews who are willing to risk all for the chance to open a route to an unplundered tomb world. Warfare erupts between unions contesting control over lost worlds and space installations.
3200	The present day.

CHAPTER SIX

GAME MASTER GUIDE

If you happen to be new to the concept of game mastering a role-playing game, congratulations; you're a rare bird to have found *Stars Without Number*. The vast majority of people reading these words have likely come to it after extensive experience in playing and perhaps running their own games, and most of them will be skimming this chapter looking for what few useful bits they can add to their existing expertise. Still, a certain degree of innocence might be an advantage here.

This chapter covers the rudiments of setting up an interstellar sector, preparing an introductory adventure for a group, and transitioning a planet-bound band of adventurers into the wider galaxy. It also includes tips on handling some of the more common problems that can crop up when GMing a sandbox-style game like *Stars Without Number*.

The role of a GM in a *Stars Without Number* game is a rewarding one, but it can be difficult at times. Creating an entire interstellar sector for the players to explore can be a challenge, and actually running the game can be confusing until you've had enough experience to master the rules you want to use and improvise effectively for the ones you don't. Still, being a GM for a role playing game like this one is really not as intimidating as it might seem at first glance.

The GM is Always Right... Usually

As a GM, it's your responsibility to keep the game moving. You should come to the game prepared with all your necessary notes and dice. It's possible that you're an improviser of sufficient gifts to produce an adventure off the cuff, but the odds are that if you were, you wouldn't be needing this section in the first place. In any case, there are plenty of truly superb GMs who simply lack that particular tool in their arsenal and having your sectors and adventures mapped out clearly beforehand will make your time at the table much more enjoyable.

You'll want to clearly understand important game systems before you start. In particular, you'll want to have a clear idea about how combat and skill checks work. Most players are accustomed to GMs making spot calls about unusual PC efforts, but they usually expect the basic systems of a game to work as described. If you intend to make changes in how combat works, or alter the skill check system, or otherwise fiddle with the fundamental rules of the game, you should make this clear to the players before the game starts.

With that in mind, you shouldn't hesitate to make quick judgment calls rather than root about for five minutes looking for the "canonical" answer to a question. If a player thinks a call is unfair or unreasonable, he or she should wait until after the game to push the point. Players should respect the need to keep the game moving briskly, and chances are that the vagaries of GM judgment will give them just as many easy breaks as unfair penalties over the course of a campaign.

Sandbox Gaming and You

Stars Without Number is designed to accommodate a particular style of play known most commonly as "sandbox gaming". Sandbox gaming relies on two things; a group of players willing to take initiative in seeking adventure and a GM willing to make a world large and interesting enough to be worth the exploration. In modern day RPG circles, sandbox gaming has sometimes acquired a reputation as being burdensome for a group. Players can have a hard time deciding what to do with their characters without the clear guidance of an obvious story line, and GMs can grow frustrated by the sheer volume of content they need to create for a sandbox game.

To some extent, these criticisms are justified. These problems of aimlessness and overwork are the ones most likely to be an issue for sandbox gamers because the setup of the game naturally tends towards them if they aren't nipped in the bud. If the players or the GM fail to understand or embrace the point of sandbox gaming, the play is likely to degenerate in short order. Still, with an understanding and cooperative group, sandbox gaming can produce some fun and interesting outcomes.

First, sandbox gaming creates emergent stories. With many other gaming styles, play is assumed to follow a specific narrative arc that is tightly bound to a preexisting story. There's a beginning, middle, climax, and denouement, and the player characters have their roles. The GM has a clear idea at all times of how the story might progress. Player actions might alter the ultimate outcome, but they aren't expected to go completely "off the rails" and charge off in a direction unrelated to the plot line.

The emergent stories created in a sandbox game are different. The GM does not have a single prearranged story on hand that he expects to fit the players into; he has many potential stories, for

many potential places, all of them locales that the players may or may not visit. He might have a general idea of the goals that the players wish to accomplish, or offer them particular plot hooks to catch their interest and focus their efforts, but he largely sits back and facilitates the stories that the players grow themselves. The players might decide one evening to start building up support for an assault on the slaving rings of the Scordian Rim worlds, and the next to detour briefly to investigate the shrines of alien amberglass they've discovered on a remote jungle world. Their story is ultimately a recounting of what the players have decided to accomplish or attempt.

Emergent stories can lack the polish and artistic proportion to be found in play styles that presume a particular context and story line for players to participate in, but they are very much the stories of the *players*. They get the satisfaction of knowing that they really can play the heroes and freebooters of the cosmic spacelanes, free to accomplish anything within the compass of their courage, prowess, and luck.

Second, sandbox gaming is unforgiving. In most other styles of gaming, it's implicitly assumed that the challenges the players face will always be calibrated appropriately to the abilities of their characters. They won't ever find themselves in no-win situations or facing overwhelming odds without making willfully stupid choices and insistently fighting against the story line of the adventure. In many cases, this is a good thing. Not many people play role-playing games so they can experience the joy of being stomped flat by an insurmountable obstacle.

Sandbox games work differently. The world is not carefully gated for character ability, and groups that charge off into the lion's den can expect to be eaten in short order. In many modern games, players are trained by genre conventions to assume that any obvious obstacle or enemy put before them is one they are intended to be able to overcome through cunning, strength, or diplomacy. There is an assumption that the GM won't let the group stumble into overwhelming danger unless they intentionally set out against clearly-labeled impossible odds.

This assumption is not safe in sandbox gaming. If the GM has arranged for some ravaging alien abomination to stalk the corridors of an abandoned orbital station, there is no promise that the players will be able to overcome it if they decide to claim the station for their own. If the group's shuttle pilot reports a hot war zone over their landing site, then there is every likelihood that they'll be blown out of the sky if they attempt to land anyway. The world is set up the way the GM has arranged it, and it does not change to accommodate the capabilities of the group.

In consequence, sandbox groups need to pay serious attention to advance reconnaissance, scouting, information gathering, and lines of retreat. They need to be able to identify a no-win situation before they get into it, and be ready and able to bug out if the situation gets to be more than they can handle. Failure is *always* an option in a sandbox game, and it's up to the players to respond to threats without assuming that the GM is going to get them out of a bind. By the same token, the GM has to be ready to let dangers be discovered before the group is neck-deep in trouble. Effort

spent to investigate and scout a situation should be repaid with a relatively clear warning if it's more than the group can be expected to overcome.

Third, sandbox games rely heavily on the idea of a living world. The universe continues to move as the characters go about their adventures. Empires clash, scheming villains progress in their plans, lost worlds are discovered and expeditions vanish. The players shouldn't be left to feel that the rest of the cosmos goes into stasis when they're not around.

Many modern adventures can end up a little bit mechanistic, as important plot points and revelations can't happen out of sequence without spoiling the progress of the story. The GM may be willing to fudge a few things, or may have the improvisational talent to let things unfold without disrupting the story arc, but most GMs find it easiest to simply let the important NPCs hold off acting until the dramatic moment is right.

This isn't how a conventional sandbox game works. NPCs will act when they are ready and events will unfold when it's time without reference to what the players are doing or have done. Because the only story is emergent, there's no master narrative to control events. If all-consuming disaster visits a world due to the players' carelessness or indifference, well, there's always the rest of the galaxy for them to explore.

The guidelines given in the Factions chapter give a method for creating a steady supply of "off-screen" events for a GM, but it can't be a substitute for a GM's careful consideration of cause and effect. If the players wipe out the secret maltech laboratories of the Brotherhood of the New Day, the impending Brotherhood assault on the nearby frontier world of Argus IV might be set back for months or years. By the same token, if any Brotherhood cultists escaped to tell of the culprits or any security footage survived, the cult may well vent its displeasure on the group.

In either case, the group needs to be aware of these causes and effects, so as to give them the proper feeling of being in a world which reacts to their actions and is affected by the choices they make. A sandbox world that is perpetually impervious to the players' mark isn't so much a world as it is an exceptionally large backdrop. Players will engage more deeply with the setting when they feel as if their actions matter to it.

Now that three major elements of a sandbox world have been described, it's important to point out the things that the players and GM need to bring to the table. Sandbox games can fall flat in a hurry if the group or the GM isn't prepared to deal with certain important factors, and these things need to be understood up front.

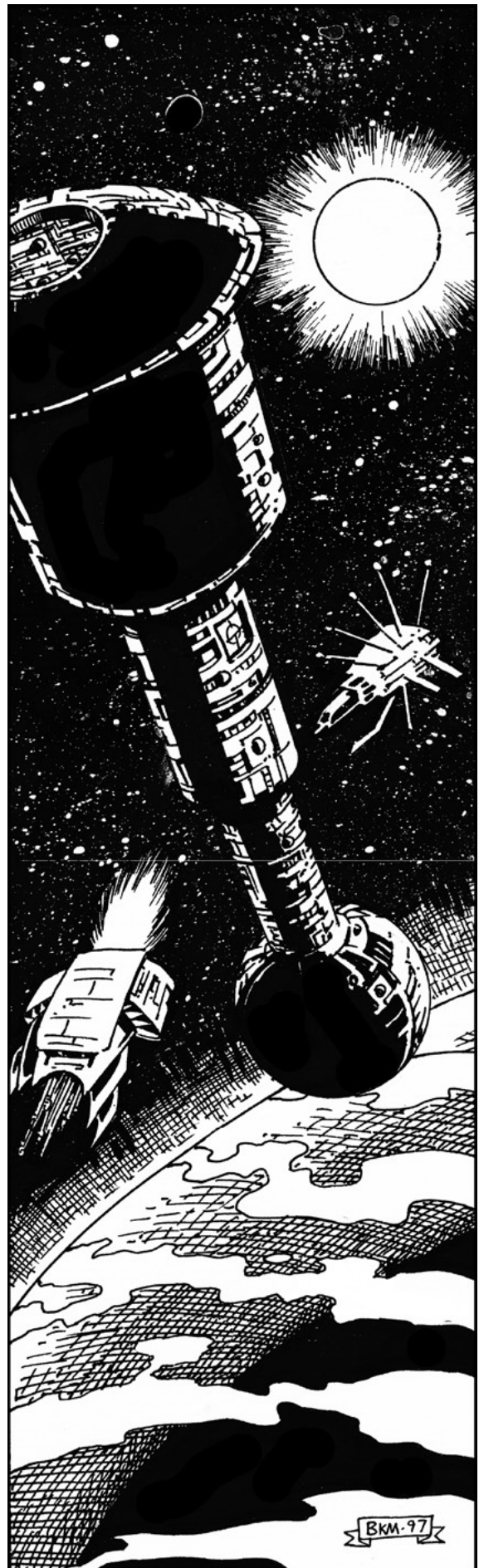
Players need to understand that it's ultimately their job to motivate their characters. They need to have a goal and work toward it, even if it's something as simple as "Become fabulously wealthy and renowned." The GM will do his best to provide interesting hooks and places for the characters to be, but ultimately, the players need to have their own motivation and act accordingly. They should be ready to get out into the cosmos and do something.

Players also need to understand that the universe is not organized around their capabilities. The world is full of situations and opponents that will get the group killed if they are careless or foolhardy. The GM will respect attempts at scouting and investigation and will clue properly careful adventurers about potential death-trap situations, but he won't save the group if they insist on plunging ahead into certain doom. Players need to know the limitations of their characters and choose challenges they've got a fighting chance of surviving.

For players that are new to *Stars Without Number*, it may be necessary for the GM to be a little more explicit than usual about letting them know when a situation is too much for them. They may not have the experience with the gaming system to realize that a quartet of freshly-generated adventurers hasn't got much of a chance fighting against a dozen pistol-wielding thugs. GMs shouldn't hesitate to give new players like this an explicit take on their odds of success before the group chooses a course of action. Once the players get more familiar with the way skill checks and combats play out, they'll be able to make their own estimation of their chances.

On the GM's side, it needs to be understood that a sandbox game world requires a lot more preparation than many contemporary story line-based games. It's not sufficient to plan out one particular narrative arc on the assumption that players can be steered back onto it if they go astray. The GM needs to have at least a basic idea about the contents of an entire interstellar sector, because the players could theoretically end up on any of those planets, to say nothing of the adventures to be had in deep space around abandoned asteroids and derelict void stations.

It's this kind of heavy preparatory burden that might well have contributed to the decline of sandbox gaming in favor of smaller, more tightly-plotted story lines for games. *Stars Without Number* is designed to ease this burden by giving the GM a number of tools for the quick generation of a roughed-out interstellar sector with plot hooks, places of interest, and adventure frameworks ready for elaboration.



Creating Your Interstellar Sector

The making of a *Stars Without Number* campaign starts with the creation of a sector. A sector describes a region of space based on old Terran Mandate administrative zones. A given sector usually contains twenty to thirty stars and as many planets of interest. Some frontier sectors never got anything more than alphanumeric names such as “Sector AN-78”, while other sectors acquired formal or informal names based on common usage or important planets.

At the back of the book is a Sector File that includes a number of worksheets, any of which can be reproduced for personal use. Personal use is recommended, in fact, as it can be difficult to keep track of all the information associated with a sector without having a properly-organized file. You shouldn't feel intimidated by the Sector File. The information you're going to create is very straightforward and won't require any spreadsheet gymnastics or running math tallies. It's more like filling out the plot line of a story, or describing a region in a guidebook.

The first step is to make a copy of the sector map sheet in the file, a hex grid ten hexes high and eight wide. You can write in the name of the sector now if you wish, or wait until after you've generated the worlds to pick a name that fits.

Once you have the map sheet, roll 1d10 and add twenty to it. That's how many stars exist in this sector. About two-thirds of the stars should be randomly placed, while the last third is used to create connections between clumps of random stars. Remember that most postech spike drives can't manage drills of more than 3 hexes distant, so a clump of stars four hexes away from their nearest neighbors will be sealed off from all but pretech exploration ships. Even pretech craft can't make drills of more than 6 hexes. Most clusters should be connected by chains of stars that require only 1 hex jumps to transit them.

To get a random location for a star, simply roll 1d10 and 1d8 together. The first die gives the row of hexes the star should go into and the second die gives the column. If there's already a star in that hex, place it adjacent in the direction of the nearest map edge. As an alternative, you can build out star clusters by picking a star and rolling 1d6 to determine in which neighboring hex to place the next star, with “1” indicating the hex directly above it, “2” meaning the next one in clockwise sequence, and so forth.

Creating your Worlds

Each star should have at least one “interesting” world around it. A number of airless dirtballs or molten slag-drops might orbit the stellar body, but at least one planet should have something on it to make it worth a group's visit. The Planet Record sheet has blanks for filling in the particulars of each world, and these particulars are explored in the World Generation chapter.

In its simplest form, generating a world involves rolling 2d6 five times to determine the planet's atmosphere, temperature, biosphere, population, and tech level. Then 1d100 is rolled twice to get two “tags” for the world, particular traits of interest or uniqueness. If you can't readily pick a name for the world, the Resources chapter has a number of random name generation tables that can be used.

Sector Creation Summary

Place the Stars

The standard sector map is a grid of hexagons 8 wide by 10 high. Roll 1d10 and add 20 to determine the total number of stars in the sector. For the first twenty or so stars, roll 1d8 and 1d10 together to determine the column and row in which to place the star. Some columns have “half-hexes” in them, and only 9 full hexes; if you roll a 10 for such a column, either reroll or place it at the bottom-most full hex.

Once you've placed the randomly-positioned stars, add the remainder to connect any stellar clumps or groupings.

Create the worlds.

The World Generation chapter explains how to create a random world with a half-dozen die rolls and a little ingenuity. Most stars will have one world of interest, though a few might have more and some might lack any interesting worlds at all. Almost every stellar body has its collection of barren rocks and airless debris floating around it, but the world generator is intended to create the kind of planets that can provide an interesting visit for PCs.

Add the Factions

Factions are organizations or groups that are significant players in the sector's affairs. Some may be openly known, while others are shadowy organizations that shun public notice. Worlds can have factions representing their governments or major powers on the planet, but it's usually not worth the effort to create them unless they're going to do more than serve as a backdrop.

Create Aliens

Some GMs may run a sector without alien life, but others have need for an alien species or two, even if simply to give some ideas about the ruins and relics left behind in the sector. The Alien Generation chapter gives guidelines on creating useful alien sentients, and the Xenobestiary helps with fearsome beasts.

Outline Adventures

Identify the world or space station that the players will begin on, and then make up a few adventure possibilities with the Adventure Generator chapter and the elements you've already established for that world. Depending on the amount of preparation time you wish to spend, you can do the same for neighboring planets to ensure you've got some material on hand for any offworld adventures the PCs might embark on.

Fill the NPC Bank.

The Sector File includes a number of sheets for recording the details of minor or major NPCs. You can use the Resources chapter to quickly generate a dozen or so minor NPCs that you can then use on the spot when you need one in a hurry. A generic barkeep, police official, starship captain, med-tech, or grizzled native backwoodsman can often be necessary, and the progress of play might eventually promote these minor figures to greater importance in the tale of the group's accomplishments.

The World Generation chapter contains full details on forming a world. Still, you shouldn't hesitate to alter or ignore rolls that don't fit. The chapter is simply there to help your creativity along, and it isn't intended to replace old-fashioned inventiveness and common sense.

Fabricating Factions

Factions are particular organizations or governments that you intend to play a major role in the sector. These factions may not be the most powerful in the sector- indeed, they might be very small and planet-bound groups- but they're the ones you intend to use to help create adventures and add life to the sector. It's usually good to make three or four factions at the start of the campaign. Full details on creating and using factions are given in the Factions chapter.

You might want to hold off on creating one of the factions until after you've decided the starting planet for the campaign, especially if you want to give the party a faction patron or nemesis from the very start.

Choosing a Starting World and Adventure

Every tale of daring has to start somewhere, and so you'll need to choose a planet to begin the campaign. You should pick a fairly cosmopolitan world with sufficient tech for spaceflight, as it's likely that the PCs will be a rag-tag bunch from around the sector and will need to meet on some world that justifies such a motley selection of origins.

It's quite probable that you won't yet know what kind of PCs your players will generate, but you can tell them beforehand what sort of world the campaign will be starting on. Some players may choose to make PCs native to that world, and those who prefer to create denizens of more distant spheres will know that they need to make something that can reasonably function on the world that you've selected.

Just as you need to choose a starting world, you need to build a starting adventure. The Adventure Creation chapter has a hundred different plot outlines you can look over, as well as guidelines for creating your own. For plot hooks, it's best to choose something broad, like the promise of payment or the chance to get offworld. Hooks based on specific PC backgrounds or interests can be difficult to conjure until after you know who the PCs are actually going to be.

Pick a Means of Interstellar Travel

It's possible that the players will find your starting world fascinating enough to want multiple adventures set there. The initial adventure will likely have left some unresolved plot hooks lying around, and you can use those in conjunction with the Adventure Creation chapter to continue creating interesting situations for the PCs. Still, it's very likely that sooner or later, the group will want to get into space... or be forced to flee the consequences of their dirtside escapades.

With that in mind, you should establish the way that the group will eventually be able to leave your starting world. The simplest solution is to just let the PCs book passage on a tramp merchant

or small trader, ships that often show remarkably little interest in customs and immigration law when credits are involved. The captain of the ship should be willing to go to several different worlds so as to prevent the players from feeling "railroaded" in a particular direction, but it's unlikely the captain is willing to go just anywhere the PCs wish.

As an alternative, the PCs can come into the ownership of a small starship of their own. If one of the PCs is a pilot, this is probably the best choice, and if not an NPC pilot or navigator can come with the ship. Still, it doesn't have to be a particularly good starship, and it probably has very limited spike drives, questionable maintenance, and vigorously idiosyncratic quirks in handling. The struggle to keep their ship up and running can be the catalyst for a great many adventures.

In either case, you should be careful about the travel ranges allowed. The farther the PCs can go without stopping, the more of the sector you're going to have to flesh out quickly. It's often best to limit early interstellar travel methods to drills with just a one hex range, and then let maintenance failures or a captain's refusal strand the PCs on the new world for a time. As you build out the sector, you'll be able to let players travel more widely while still having suitable adventures ready for them.

Outline Adventures for Neighboring Worlds

You'll need to develop the initial adventure on your starting world thoroughly, so you have something to run at the first session. You should also use the Adventure Creation chapter to create draft outlines for adventures on the nearest neighboring worlds, keeping in mind the sort of interstellar travel possibilities that exist for them. These need not be full-fledged adventures, but you should have a fairly clear idea of what sort of mischief the PCs can get up to on those planets.

As time goes on, you'll develop a lot of these outlines- one or more for every world, most likely. It can be useful to fully develop a few of them, the ones that are most amenable to being swapped between worlds. These "generic" adventures can then be slotted in when necessary, changing the names and places to fit the world the PCs are on.

You shouldn't feel obliged to map out the adventures and events of an entire sector at once. Not only is this a huge amount of work, but it also cramps a GM's ability to alter things in response to the actions and choices of the group. It's better to start with a firm idea of the region around the players, a few location-agnostic adventures you can swap in as needed, and a loose conception of what's going on with the other worlds in the sector.

Complications and Solutions

Once you've successfully created your sector and gathered the players, you might find a few difficulties cropping up in the course of play. There are certain pitfalls and complications that are particular to the style of play that *Stars Without Number* encourages, and it's helpful to have an idea beforehand of how to deal with them.

Death

Characters in *Stars Without Number* die easily. The average third-level psychic might well be taken out by a lucky pistol round, and even high-level warriors don't have more than 50 or 60 hit points. It's true that biopsionics and Lazarus patches can revive characters that get medical help in time, but there are plenty of situations where there's just not time to save a teammate or the attempt proves a failure. If the rules are used as written, PCs who regularly put themselves in dangerous situations are going to die.

You and your players should decide at the start of the game how you want to deal with this. For optimal old-school authenticity, you might mutually decide to just let the dice fall where they may. If Captain Spaulding plunges into the sulfur volcanoes of Badghati IV, the high-level veteran of dozens of daring interstellar escapades gets a memorial and his player rolls up a replacement. This is the default assumption of the game, and it can add a great deal of excitement and reward to the sensation of navigating a character through lethal challenges.

It can also really aggravate players who enjoy building deeply-involved PCs with many close ties to the game world and its characters. A GM can decide to omit the risk of death in most cases, reducing PCs with 0 hit points to "gravely wounded" status and allowing them to be revived with medical attention. Some situations might run the risk of real death, but the GM can save this for occasions of genuine dramatic importance. There's nothing at all wrong with this approach to death, and it can help some players focus on the story that they and their group are creating rather than living in fear of every goon with a combat rifle.

Of course, there are shades of gray between these two extremes, and most GMs come to inhabit some point on this spectrum. There are many ways the GM can lessen the risk of death without out-and-out denying it. In particular, the GM can cause enemies to spread their attacks over a group rather than focusing on the weakest PC. Hostiles can pay more attention to the warriors in the group rather than the experts or psychics, especially when the warrior has yet to use his Veteran's Luck ability to negate a hit. You can take care not to include instant-death traps or devices in your adventures, or fabricate situations where a character's life hinges on a single die roll. You can include substantial numbers of NPC henchmen and companions in an adventure, and let them soak up a portion of the danger. All of these tactics can be used to tacitly lessen the danger of character death without taking it off the table.

Sooner or later, however, it's likely that some PC is going to kick the bucket. At that point, it becomes necessary to get a replacement into the action. The replacement PC should be added as quickly as possible, and it can often be advantageous for players to roll up these replacements before the game even starts, so they have a character

in hand should their former PC catch a bad case of laser poisoning. Creating the characters beforehand also allows the group to set up ties of association that help justify why they're suddenly willing to include the new PC in their adventures. These replacements can be members of the crew of the ship they're travelling on, outworlders slouching around the local bars, wanderers gone native among the locals, or prisoners of whatever nefarious group the party is fighting. The key factor is to get the replacement into action quickly, so the player who's lost his or her PC isn't punished with inactivity at the table as well as PC loss.

It's generally easiest to have the replacement PC be the same level as the dead PC. For high-level adventures, it's distressingly likely that a low-level PC would die quickly when facing challenges of that caliber. Still, a GM might well require that all replacement PCs start out at first level. Due to the exponential rate of increase for XP needs, a first level PC will level up very rapidly in the company of higher-level companions, and will normally end up no more than a level or two behind their compatriots in short order. It's up to the rest of the group to protect and support the new member until they're "up to speed" with the rest of the party.

Skill Checks

Skill checks are susceptible to overuse. Some GMs end up forcing a skill check on everything more complicated than tying your bootlaces, or prohibit PCs from even hoping to accomplish a feat for which they lack the appropriate skill. Skill checks are not meant to be the sole way that a PC gets something accomplished in the world.

You should be charitable about the things a character can accomplish without a skill check. If an Expert's concept is that of a crack spaceship pilot with a Dexterity modifier of +2 and Vehicles/Space-2 skill, you shouldn't be expecting him to make skill checks to operate the ship under normal conditions. He can take off, he can land, he can get to places in the system without bothering with skill checks. Even someone with Vehicles/Space-0 should likely be able to do as much, except the expert pilot can do it without a check even amid high winds and low visibility. Let the PCs be good at their chosen focus.

Don't spam skill checks. If a character is trying to repair a fusion power plant while under fire from badlands raiders, don't turn it into a roll-each-turn extravaganza to determine how far he progresses in his attempt. Let him roll once, with a failure meaning either that he can't do it in the available time or that he'll need another 1d6 rounds before he can bring the defense laser power plant online. Give him player choices each turn, like deciding whether to bring a laser online early and risk a short in the wiring. Let a single skill check indicate the general course of success or failure, but then let the PC make additional choices rather than additional rolls. Rolls can only add so much tension, and tension alone does not guarantee engagement with a situation.

Don't require a skill check unless failing it means something. If a character can simply keep trying at something with no real negative consequences, it's not worth a skill check. They'll get it sooner or later, so it's easiest to just tell them that it was successful.

If time is important and there's a significant difference between accomplishing it instantly or accomplishing it soon, just follow a failed skill check with a roll of 1d6 and assume that many rounds, minutes, or hours go by before the PC finally gets it right.

Don't ignore actions taken outside of skill checks. If a character jams a titanium wrecking bar into the cogs of an alien death trap, you probably shouldn't require him to make a successful Tech/Postech roll to disable the device. What he's done will objectively work, and there's no point or need in rolling for it. If there's a casket of luminous Mettauian glass underneath the senator's bed, then the players will find it if they look under the bed, and no Perception check is needed to see if they notice it. Skill checks are best used to reflect the results of a complicated or uncertain attempt at an action. If the PC tries something that anyone can do and that would have an obvious result, then just let the result happen.

Combat

Combat in *Stars Without Number* tends to be fairly lethal. One good roll by a pistol-wielding thug can take out almost any first level character, and characters never really scale to the point where they can afford to hold enemies in contempt. You should take care to structure your adventures and situations so that PCs are very rarely forced into fights. The shotguns and laser rifles should come out either because the PCs have chosen to use them or because they're facing the consequences of their own missteps.

Because combat is so dangerous, it's vital to allow the PCs to set it up on their own terms, assuming they're cunning and prudent enough to take advantage of their opportunities. Ambushes, AC bonuses for cover, and the use of the environment to hurt and baffle their foes should all be encouraged. If a character wants to use an element of the environment to do something interesting, let them. "You do that, and nothing happens." is rarely a good answer for any halfway plausible PC action.

Enemies should also be played as their morale indicates. A pack of street thugs will not transform into Spartans at Thermopylae, dying to the last man to prevent the PCs from discovering their gang hideout. Even trained and disciplined combatants are going to have serious thoughts about retreat as soon as their comrades start dying. Only when enemies feel trapped or are defending something as precious to them as their lives will they normally fight to the last.

Negotiation and Diplomacy

There is a Persuade skill, and the fact that this and similar social skills exist sometimes causes players or GMs to simply shut off more informal evaluations of social situations. When the PC wants to convince an NPC of something, they roll Persuade + Charisma and let the dice tell them how far the NPC is willing to buy their premise. The actual words and arguments they use are simply decorative.

On one level, this is justifiable. The player of the warrior isn't expected to be a real-life shootist to roll a good attack roll, so why should the player of the silver-tongued expert con-man have to come up with a smooth line of patter to use his own abilities? It's

legitimate and reasonable to let the dice determine the success of a conversational gambit. If a player has spent character resources on something like social skills, they should see a mechanical benefit from it. Moreover, relying on a player's conversational talents to move negotiations can often boil down to a game of finding the right conversational gambit for the GM rather than rationally persuading the NPC.

Still, some players and GMs prefer to let actual argumentation play a bigger role. One potential way to do this is to let the player state his or her case, and then set the Persuade difficulty accordingly. Convincing a crime boss to give a PC access to his network of corrupt city officials might be a difficulty 8 test if the player makes a good argument for it, while a desultory request might be difficulty 10. Alternately, you might implicitly adjust the consequences of success or failure based on the character's total Charisma and skill bonus. A character with a +5 total might not succeed in persuading the crime boss if they roll very low, but he'll point them towards someone who might be able to help them. The key for this sort of approach is to let both skills and player argumentation have a visible effect on the outcome, so that players feel that both matter.

In either case, you should make clear to the group which model will be used when they're making up their characters. It prevents difficulty later when the player running the character with a -2 Charisma modifier and no social skills expects his own glib tongue to carry the day with NPCs.

Searching and Investigation

Many adventures rely on the party solving a mystery or unearthing the dark truths behind some enigmatic event. PCs can occasionally get frustrated by these adventures when they feel that they've hit a dead end or are presented with a set of clues that they, the players, can't hope to puzzle out. Conversely, players can sometimes grow bored when the adventures become a sequence of skill tests, with success reliant on rolling sufficiently high numbers so the GM will tell them what their PCs deduce from the facts.

Running a good investigation-based adventure can be difficult, but there are a few tactics that can be useful to a GM. First, identify those pieces of information that must be found in order to solve the puzzle. Cracking the secret organlegging ring run out of the city's child protective services department might hinge on identifying the secret lab in which the organs are harvested, the corrupt CPS chief who hides the goods in her home, and the crooked physician who launders the organs into the donor system. These three facts have to be discovered in order for the PCs to root out the mystery.

Once you've established the facts, watch for opportunities to let them be discovered. Drawn in by the hook of a recurring urchin NPC they knew who vanished after being picked up by protective services, the PCs might check out the NPC's old haunts or associates, only to learn that a number of street kids have gone missing after CPS collected them, and that all of them were picked up by a particular agent. Don't make the discovery of vital information hinge on a die roll. If the PCs take rational investigative steps, they should be given something to show for it, even if it's just the confidence that their current route is a dead end.

You should be trying to give out this information when the PCs give you an excuse to do so, rather than hoarding it against all but precisely correct lines of investigation.

You also shouldn't feel bad about giving PCs a break if they start to flail, either by introducing a helpful NPC to put them back on the trail or remind them of some earlier point they didn't fully investigate. By the same token, you shouldn't hesitate to let them deal with the consequences of carelessness or tardiness in their investigations. If they spend too long in distractions before finding their urchin friend, they might discover nothing more than a number of dated cryoboxes.

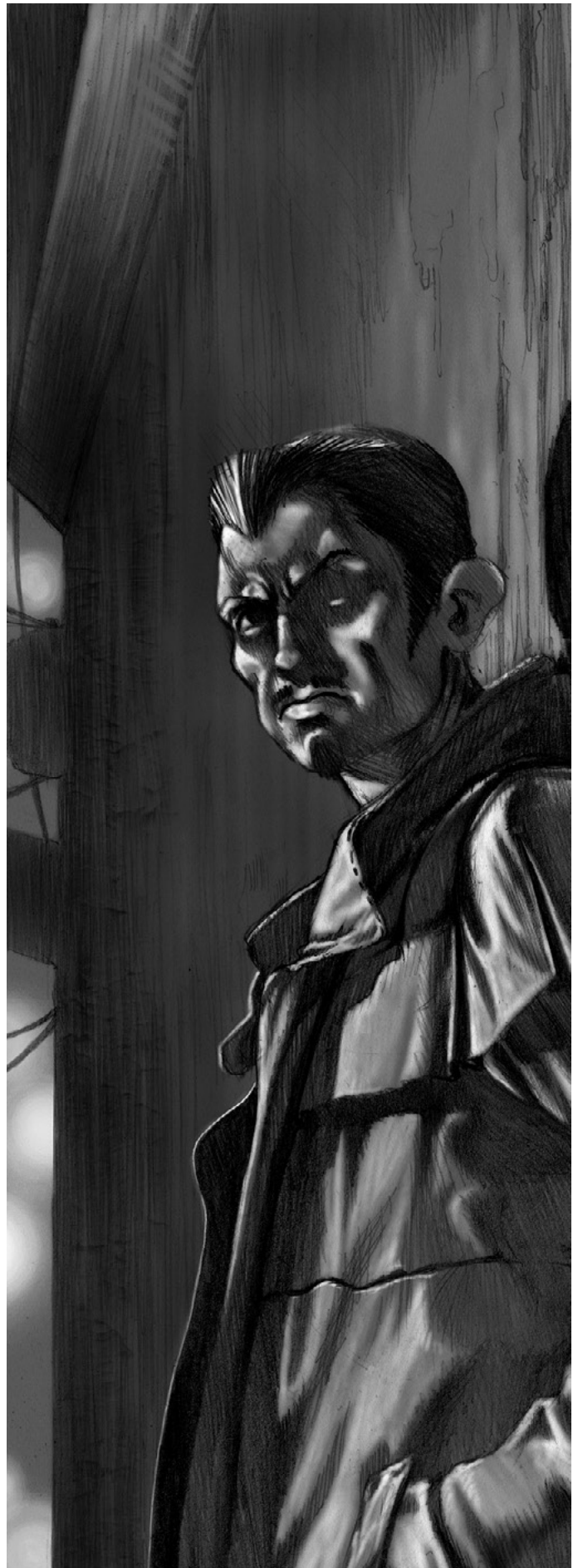
One particular point that often comes up is the question of searching an area. Some GMs just let the PCs all make Perception checks to see if they notice something hidden. This has the advantage of being quick and simple, but it also can put vital information at the mercy of good dice. Other GMs require the players to specifically say what parts of an area they're searching, what they're looking under or inside, and otherwise describe the specifics of their search. This can penalize players who don't correctly envision the area the GM is describing. One compromise is to simply give players vital clues when they say that they are searching, and then use one or both of the other methods to let them search for supplementary facts and helpful details.

Salvage

The far future is full of expensive decor. Truly enterprising PCs sometimes are of a mind to "salvage" a place down to its foundations, ripping out everything that can be resold and trucking it all off to be converted into credits. To some extent, this is simply common sense; no red-blooded freebooter would simply leave unclaimed valuables lying around when he knows they'll fetch a good price at the starport. Still, it can be tedious to handle the logistics of salvage and unbalancing to the game to allow PCs to cash in on every alien fork and wall panel they can drag back to civilization.

The easiest way to deal with this is to simply make clear that most non-portable valuables the PCs might salvage are just too difficult to move on the secondary market. Questions of legal ownership, finding a suitably indiscriminate buyer, and avoiding tax scrutiny all combine to make such efforts more trouble than they're worth. It can be interesting to make an adventure out of moving some particularly exceptional piece of salvage, but as a general rule, it's just not worth it to strip the copper wiring out of a crime boss' hideout.

There is also the issue of PCs methodically stripping the armor, weapons, and pocket change from their dead foes. In most cases this is self-limiting, as most PCs can't easily pack around a half-dozen combat rifles while engaged in the kind of pursuits that leave them fighting their former owners. In the unlikely case that the PCs come back with a cargo sled, most of the armor is probably worthless due to the perforations that killed its wearer and the weaponry is unlikely to be so valuable as to unbalance the game. Even in that case, moving the weapons on the black market is usually not a trivial enterprise. You shouldn't discourage PCs from upgrading their own equipment from the plunder of the fallen or taking exceptionally valuable pieces for later fencing, but



you shouldn't feel obligated to let them decamp with the battlefield on their backs.

The actual mechanics of selling plunder can be as complicated as you wish to make them. It may be that what the PCs retrieve can be sold openly on the world, usually for around half its purchase value. Finding a fence might be needed for those goods which were acquired in illicit fashion, or items that are outlawed for common trade. Fences rarely pay more than ten or twenty percent of the purchase price. Many such difficulties can be removed by taking the loot offworld and laundering it somewhere beyond the reach of the planet's laws.

Interstellar Trade

As an extension of this, some groups will want to make a killing in interstellar trade, carrying the goods of one world to another to make a fast credit. This is a venerable science-fiction trope, and there's no reason you shouldn't allow it, but there are a few considerations to keep in mind when dealing with space commerce.

Perhaps most importantly, there is no such thing as interstellar bulk shipping in *Stars Without Number*. Even the largest spike drive ships have cargo capacities measured in a few tens of thousands of tons, while a modern oil tanker has a capacity of around 500,000 tons. Trying to run a meaningful trade in bulk commodities has been a lost cause ever since the Jump Gates failed and massive system-ship freighters could no longer make the jump between worlds. Such commerce can exist inside a system, with huge slowboats moving from planet to planet, but modern interstellar trade relies on carrying small loads of high-value goods or expert services.

Most small merchant ships such as the ones a PC group is likely to own rely on in-system supply runs as their bread and butter. They cart loads of food, water, replacement personnel, spare parts, and other life support supplies out to remote asteroid mines, research stations, and extraction plants. The pay is rarely anything to write home about, but such supply run missions are excellent hooks for dropping a group into the middle of some disaster or conflict.

Trade beyond supply runs usually revolves around moving local specialty tech or products. Local art, exotic pharmaceuticals, high-quality technical specialties, or passengers with special skills who want to reach a particular world all make up this class of trade. For most purposes, it's not necessary to really elaborate on the specifics of this, though it can add flavor to make up a product or two unique to a given world.

Players will usually want specifics on which goods are available on a given world and how much it will cost to buy a ton. For most campaigns it's not necessary to worry about this at all, but mercantile groups will spend a lot of time considering these factors. If you don't care to develop your own more elaborate system of interstellar economics, just fabricate some goods that seem appropriate to the world and price them $2d8 * 100$ credits per ton. Let the players worry about figuring out which worlds might want which goods. If you think they've made a good choice, then let their profit margin on the new world be $1d10-2 * 10$ percent. This money is theirs to spend, but it does not count as a reward for XP purposes.

There are also exceptionally risky trading expeditions to lostworlders, bringing the fruits of modern postech to their benighted nations. While the weaponry, pharmaceuticals, and technical artifacts are usually greedily desired on these worlds, the natives often have very little of value to pay for them. Explorer-merchants often have to investigate a lostworlder culture carefully before they can identify any particular product or resource that can be usefully shipped interstellar distances to justify the trip. Some particularly unscrupulous merchants do not balk at taking payment in local slaves for export to decadent or dangerous worlds.

There are also "missionary" supply runs to these primitive worlds. The Preceptors of the Great Archive occasionally run missions on a planet to disseminate valuable technical and artistic knowledge among the locals, and there are always a selection of determined missionaries bent on bringing the word of their faith to the heathens. While these missions normally can supply their own food, offworld medicine and spares are vital for keeping their more advanced tech operating.

More sinister than the Preceptors and the pious are the "Kurtzes". The prospect of ruling like a god on some forgotten world lures a certain type of men and women, a type that might normally be forced to limit their dark ambitions on a more technically advanced world, where energy weapons and powered armor do not give a person so vast an advantage over their peers. These Kurtzes seek out lost worlds with other like-minded men and women, usually framing their ambitions as a matter of "bringing advancement to the primitives". Most Kurtz expeditions collapse in blood and horror within a few years, but some manage to hold on for far longer. More than one free captain has landed his ship on a seemingly routine supply run only to discover that he is bringing vital spares to a depraved, heavily-armed tyrant.

CHAPTER SEVEN

WORLD GENERATION

Creating a sector might require the development of dozens of inhabited worlds. This chapter includes guidelines for the quick generation of worlds useful to a sandbox style of play. Some GMs may prefer to hand-craft every planet in a sector, but the process given here helps to streamline the process and spare a GM's creative energies.

Every world created by this process is intended to be useful to a GM running a sandbox game. By "useful", it is meant that every planet should have numerous easily-identified adventure hooks and present visiting player groups with fairly obvious avenues for the exercise of their adventurous impulses. In a sandbox game, a GM can never be entirely sure of a party's next move, and every world needs to be capable of providing a few nights of excitement.

This chapter will show you how to produce a world with no more than six or seven die rolls and a little judicious blending. The Planet Record sheet in the Sector File has blanks for the necessary information, and room for you to make notes on adventure elements and the specifics of the world's languages, cultures, and a short record of the PC group's activities on the planet.

Some GMs find it more realistic to leaven their sectors with a healthy crop of "boring" worlds. If a GM prefers to have a sector largely composed of uninhabitable balls of molten rock or radioactive gas giants, there's nothing prohibiting that tact here. Such an approach can be fitting for games being run in a more "hard sci-fi" setting, one which has less room for numerous human-habitable worlds. To create a sector composed mostly of uninhabitable worlds, simply reroll any atmosphere or temperature roll that comes up 5, 6, 7, 8 or 9. If it comes up the same the second time, then keep the roll.

Or more simply, just arbitrarily place the few habitable worlds in the sector and hand-pick their atmosphere and temperature rolls.

On the other hand, some GMs prefer to have a sky full of planets teeming with human life, possibly with more than one inhabited or interesting planet per star. In this case, you can simply reroll any atmosphere or temperature roll that *doesn't* come up 6, 7, and 8, keeping the second roll no matter what it might be. Star systems that have multiple inhabited planets probably exist under a single government of some kind, forced together by the necessity of dealing with a sometimes-unfriendly universe. On the other hand, they might be in an uneasy state of cooperation, or might be embroiled in open warfare in an attempt to establish a system government.

Whatever is chosen, GMs should keep in mind the purpose of a world; it's there to give the players someplace interesting to go. If there's nothing about a planet that's likely to attract the group's interest, you should rethink the world. Even the sleepest agri-world should have *something* to catch the PCs' interest if they take the time to investigate the place. Not every planet needs to be crawling with intrigue and adventure, but an entire planet devoid of anything of interest is every bit as artificial.

In some happy circumstances a world will leap fully-formed from your imagination. You will know exactly what you need and precisely what elements will make it a fascinating place for interstellar adventurers to encounter. Odds are that this illumination will not extend to every world you need to make to populate a sector or accommodate a group's wandering, so the following rules are provided for the random generation of worlds.

World Generation Summary

Determine Atmosphere

Roll 2d6 and consult the table. If you intend to have this world to be populated by more than a few tens of thousands of colonists, you may simply wish to assume it has a breathable atmosphere of some kind.

Determine Temperature

Roll 2d6 and consult the table. Again, if you specifically intend for this world to have a populous human presence, you should restrict results away from the Frozen or Burning options.

Determine Biosphere

Roll 2d6 and consult the table. Most human-inhabited worlds have some kind of life on them, whether native or imported from Terran stock. The biosphere roll helps indicate what kind of life exists on the planet.

Determine Population

Roll 2d6 and consult the table. If the world you've generated thus far is a molten hell-ball with a corrosive atmosphere, it's unlikely to have a population of millions. You'll want to adjust the results obtained here in light of the world's general habitability; but don't be afraid to accept an unusual result if you've got an idea about how to explain it.

Determine Tech Level

Roll 2d6 and consult the table. Worlds with less than tech level 4 are incapable of interstellar flight, so such planets will be largely dependent on the goodwill of free merchants, tramp freighters, and Scavenger Fleets- assuming they have any interstellar contact at all.

Determine World Tags

Roll 1d6 and 1d10 together, twice, and consult the table. These two tags give striking or specific details of what makes this world worth notice to starfaring adventurers. Just as importantly, these tags give ideas about friends, enemies, things, places, and complications that might make the world interesting.

When you've rolled the tags, take a moment to write down a few local examples for the Enemies, Friends, Complications, Things, and Places. These should be tailored for the specific world; if you've rolled "Preceptor Archive" and "Hostile Biosphere" as the two tags for the worlds, you might decide that the Roving Preceptor Adept might fit best as "Marius Groen, Jungle-Roaming Xenobiologist". Four examples of each element is a good number.

Lengthy detailing is not necessary at this stage, but recording a few examples of each category will help you later, should you choose to make use of an adventure framework as described in the Adventure Generation chapter.

Dress the Set

Choose the world's name, some elements of local color and flavor, and a few details about the local spaceport. The tables in the Resources chapter can be useful for this.

Atmosphere

The first step in randomized world generation is determining the planet's atmosphere. In some cases, this is going to be preordained; if you want a barren asteroid base, it's not going to have any atmosphere at all. If you want a world teeming with human life, on the other hand, it almost certainly is going to have a breathable atmosphere.

Note that if a truly noxious atmosphere, climate, or biosphere turns up on a random roll, you should think carefully about what has made humans choose to live on such a world. Perhaps the original colonists were prisoners exiled to an open-world prison. It could be their ancestors sought isolation at all costs. Given its position in the sector, it might be a vital refueling and trading port for multiple short-run spike drive courses. The original colonists might have had to make an emergency landing. Whatever the reason, it takes a powerful motivation to make a band of colonists decide to make a corrosive, burning hellhole of a planet their permanent home.

2D6	ATMOSPHERE
2	<i>Corrosive</i>
3	<i>Inert gas</i>
4	<i>Airless or thin atmosphere</i>
5-9	<i>Breatheable mix</i>
10	<i>Thick atmosphere, breathable with a pressure mask</i>
11	<i>Invasive, toxic atmosphere</i>
12	<i>Corrosive and invasive atmosphere</i>

Corrosive atmospheres are dangerously hostile to conventional vacc suits and other protective gear. They steadily strip away at a suit's vent ports, wiring connections, and other weak spots until they eventually break through and flood the suit with a toxic cocktail that usually kills a victim in seconds. Weak atmospheres might require as much as a day to degrade a vacc suit, while strong ones might accomplish the job in an hour. Even forcefield-based environment suits such as a FEP suffer steady damage to their exposed elements.

Native vacc suits are usually covered with an ablative layer or spray that can be regularly renewed, and their buildings often rely on a steadily-extruded slurry or neutralizing materials that can be constantly renewed by pores in the building surface itself. This often gives the building a drippy, half-melted look that may be more than cosmetic in the case of those structures that have failing slurry pumps. Advanced tech level 5 equipment may be able to overcome the effects, but even pretech is often taxed by the relentless rigors of this world. Vehicles and shuttles are kept in pressurized garages when not in use, and starships never land for long.

Corrosive worlds have a number of intrinsic adventure complications, the largest being the way that every activity outside of a hab building comes with a built-in time limit. Whatever the party chooses to do outside of a building, it has to accomplish before their suit seals fail or the atmosphere corrodes a hole in their vehicle hull. A clever GM can use this problem to add extra tension to an otherwise simple task.

Inert gas atmospheres aren't hostile or poisonous, but they're unbreathable by humans. If the planet's climate is otherwise tolerable, the natives might be able to live and work outdoors without anything more than an air tank and face mask. Some degree of technical sophistication is going to be necessary for humanity to survive, and large supplies of oxygen are going to have to be extracted from some local source. "Air mines" might exist to replace the oxygen lost during human use, or local power plants might need to be kept running full blast in order to crack water molecules into hydrogen and oxygen.

On worlds with an unbreathable atmosphere, control of the air supply makes it much harder for locals to rebel against their leaders. Without the equipment and power to generate their own air supplies, would-be rebels are entirely at the mercy of those who control the oxygen. Most rulers pick up on this fact rapidly, and some worlds with unbreathable atmospheres might even make it a crime to own illicit oxygen generation equipment.

Airless or thin atmospheres are appropriate to asteroids, rocky planetoids, or barren worlds that have had their atmospheres burnt off by weapons or cosmic caprice. Whatever atmosphere exists is too thin to support human life, if it exists at all, and the world is largely naked to the chill of space and the blaze of stellar heat. Exposure to the planet's surface without a vacc suit or pressurized building is as lethal as exposure to hard vacuum.

Airless worlds are hostile to human life, but they excel at preserving the relics of the past. Provided that the ruins or remains are kept out of the baking heat of the local stellar body and the impact of random meteorites, they can survive for millions of years. Some exceptionally ancient alien ruins might even date back from before the world lost its atmosphere.

Breathable mix atmospheres can support human life without additional equipment or engineered modification. Any world that has a human population in the millions or more almost certainly has a breathable mix atmosphere.

While the air is breathable, almost every world has its own subtle cocktail of inert gases, atmospheric contaminants, and other odiferous ingredients. For spacers accustomed to the filtered air supply of a starship, the "new world stink" of a fresh planetfall can be maddening, as few linger long enough to get used to the smell of the local air. Attempting to explain the source of this discomfort to the locals rarely results in positive results. Some spaceport bars make a point of their air filtration and composition mixers.

Thick atmospheres can usually be breathed with the aid of a filter mask, though the mix of contaminants renders it slowly or quickly toxic to humans who attempt to breathe it straight. Separate air supplies are not necessary to supplement the blend, but any

society that means to survive on such a world must have sufficient technological expertise to manufacture and maintain large numbers of filter masks.

Thick atmospheres are often at least semi-opaque, and some worlds have thick atmospheres that are completely impenetrable to ordinary light. Deep banks of permanent fog might shroud the planet, or natives might have to go about with sophisticated ultraviolet or infrared viewing equipment if they don't wish to be blind. Some banks of gases might be impenetrable to even these viewing tools, leaving a party vulnerable to moments of complete blindness while out on the surface of the world.

Invasive toxic atmospheres are composed of a substantial proportion of molecules small enough to infiltrate past the seals of most vacc suits. This infiltration doesn't harm the suit, but the molecules have to be steadily flushed by the system's purification sensors before they build up to a debilitating level. This causes a much faster bleed of air as breathable oxygen is jettisoned along with the infiltrating molecules. Most invasive atmospheres cut oxygen supply durations by half, at best.

Invasive atmospheres make oxygen an even more important resource than it is on inert gas worlds. Outdoor work is avoided whenever possible, as any failure of a suit's toxin sensors or flush system can lead to death before the wearer even realizes something is wrong. Steady exposure to low levels of the toxins can also result in unfortunate effects even with a fully-functional suit. Hallucinations, chronic sickness, or worse can follow.

Corrosive and invasive atmospheres exist at the very border of what human society can tolerate. Combining all the worst traits of an eroding, corrosive atmosphere and the invasive intrusion of toxic molecules, a planet cursed with an atmosphere like this is far more hostile than any merely airless rock.

Advanced pretech filtering and oxygen generation equipment might be able to maintain tolerable pressurized habitats and hydroponic systems uncontaminated by exterior atmosphere. Anything less than this tech level means greater and greater amounts of societal resources devoted simply to the effort of breathing. Entire civilizations can be oriented around overcoming the difficulties of maintaining their structures and their pressurized homes.

Whatever provoked the initial inhabitants to settle on this world must have been of overwhelming value or necessity to convince them to consign themselves and their children to such a place. It is highly unlikely that enough ship traffic exists to get any but the most fortunate locals offworld, so the rest are obliged to deal with their harsh existence as best they can.

Temperature

A world's average temperature depends in large part upon its atmosphere. Worlds with an airless or thin atmosphere are directly exposed to the wild temperature variations produced by stellar radiation and the cold void of space, and might flip regularly between unendurable heat and near-absolute zero depending on planetary rotation and orbit.

If a GM intends this planet to have a large human population they should restrict the possibility of a frozen or burning world. Anything that is intolerable to a human without a vacc suit means that major agriculture is unlikely. As it is effectively impossible to feed entire planets through limited interstellar trade, every planet needs to support its own population. A world that can't grow food outside of hydroponic labs or underground farms is unlikely to support millions of people.

2D6	TEMPERATURE
2	<i>Frozen</i>
3	<i>Variable cold-to-temperate</i>
4-5	<i>Cold</i>
6-8	<i>Temperate</i>
9-10	<i>Warm</i>
11	<i>Variable temperate-to-warm</i>
12	<i>Burning</i>

Frozen worlds are those with so weak a stellar primary or so great a distance that the average temperature is close to absolute zero. Any atmosphere that once existed has long since frozen into drifts of solidified oxygen or lakes of liquid helium. Exposure to these drifts is very dangerous. Vacc suits maintain a tolerable temperature easily because the stellar void is very empty, and there is little conduction of heat between the suit and empty space. Dunking a suit into a lake of thermally-conductive superchilled liquid can force the heating elements into sudden and drastic overload, draining a power cell in minutes or even seconds.

Cold worlds are uncomfortable, but a human can survive on them in nothing more than heavy clothing. The worst of the cold worlds are similar in condition to Earth's Antarctic regions, barren wastes of ice and wind. The more clement ones have brief warmer seasons or equatorial bands that get enough solar radiation to support substantial agriculture.

On cold worlds, agricultural land is at a premium. The population is unlikely to be willing to limit its numbers to what hydroponic farms can provide, and they may lack the technology for wide-scale artificial production methods. Savage wars may have broken out over control of fertile growing regions, and populations have perhaps been driven away from the arable land into the cold zones and a lingering death.

Some worlds retain installations from before the Silence deep within the frozen wastes, ancient bases and laboratories that were planted in an age when good launch sites and orbital windows meant more than trifles of temperature. These lost sites might be

remembered in legend and story, and some native leaders might still be in possession of the automatic defense bypass codes handed down by their ancestors.

Temperate worlds were the most popular colony sites, and most of the truly populous worlds of the frontier have a temperate climate. Many temperate worlds have temperature ranges not unlike that of Earth, though most are canted a little further toward cold or heat depending on their angle and proximity to the local star.

Temperate worlds are the most likely to teem with native life as well, and to have alien ruins or remains located somewhere on their surface. Most frontier worlds never accumulated enough population to put a serious strain on a temperate world's arable land, but this same capaciousness often allows for more complicated social divisions to develop. Natives of other worlds are often forced to cooperate or die, while those of a clement temperate world have the luxury of deep and lasting divisions.

Warm worlds come in two main flavors, depending on the prevalence of water. "Desert worlds" are hot enough or arid enough to be deprived of most surface water. Any life on such a planet has to be capable of extracting water from living prey, air currents or moisture supplies deep underground. Humans can survive on warm worlds without more than appropriate clothing, but desert-world humans must learn sophisticated techniques of water prospecting and well-drilling in order to maintain their agricultural systems. Warfare often revolves around these water systems.

The other common variety of warm world is one blessed with an abundance of surface water. These worlds tend to be covered with plant and animal life, teeming with thick jungles and vast mats of sargasso on seas that boil with piscids and other alien life analogs. These worlds can be quite prosperous for humans if the native life is edible, but inhabitants are often forced to deal with large predators and a vividly ingenious native ecology of disease.

Variable temperature worlds tend to show a greater distribution of climates than other worlds, either ranging from cold to temperate levels or temperate to hot levels. This may be a climate that changes world-wide when a long, slow orbit brings the planet into proximity with a stellar primary, or it might be a world that has substantially different climactic zones spread across its surface. The north pole of one world might be a sun-blasted desert that moderates to a cool, wet equator, or an icy world might be warmed here and there by complex channels of geothermally-heated subsurface rivers. Variable temperature worlds tend to have savage weather. The mixing of hot and cold air can send ferocious cyclones and raging hurricanes across the surface of the world, some large enough to consume most of a hemisphere.

Burning worlds are too hot for a human to survive without equipment similar to a vacc suit in effectiveness. Rivulets of molten lead or copper might bleed from open veins on the hillsides, and many of the same perils that face an explorer on a frozen world have hotter equivalents on a burning one. Ash drifts, pools of molten metal, and superheated liquid vents can bring quick death to an unwary explorer, and the miners who inhabit such worlds must be forever vigilant against the perils of their burning home.

Biosphere

Some worlds are highly unlikely to have a biosphere. An airless rock, a frozen wasteland, or a world of boiling tin all are unlikely to host any sort of life more sophisticated than microbes, though the universe has demonstrated the existence of a few exotic creatures even on seemingly unendurable planets.

The real question of a biosphere is whether or not it's edible. Colonists on a world without edible local life are forced to seed and grow Terran crops, which may well be outcompeted by native life specifically evolved for this world. Such colonists might well end up starving amid gardens of alien fruit, unable to digest any of it. The only benefit of such worlds is the likelihood that humans are just as poisonous to local life, though many large predators don't realize that until after they devour some luckless colonist.

2D6	BIOSPHERE
2	<i>Biosphere remnants</i>
3	<i>Microbial life</i>
4-5	<i>No native biosphere</i>
6-8	<i>Human-miscible biosphere</i>
9-10	<i>Immiscible biosphere</i>
11	<i>Hybrid biosphere</i>
12	<i>Engineered biosphere</i>

Biosphere remnants are the wreckage of a ruined ecology. Petrified trees, drifts of preserved bones, forests of dead plant life; something killed all the life on this planet in the relatively recent past. It may have been the exercise of a maltech planet-buster weapon, or a mutant microbe introduced by human colonists, or some volcanic eruption or asteroid impact that plunged the world into decades of frozen night.

Any local civilization not sophisticated enough to escape the planet likely died when it did. Their ruins and remains might be found throughout the desolate wastes, along with more clues as to the cause of the devastation.

Microbial life is often the only thing that exists on the more inhospitable planets, yet the wide variety of environments that can accommodate life means that these little beasts show up in some of the most unlikely places. Some varieties of slime mold have even managed to evolve on corrosive-atmosphere planets, forming a mucous-like outer shell against the atmosphere and then feeding and growing off the chemical byproducts of its erosion.

Microbial life can also be dangerous. While most alien microbes are unable to infect or harm the radically different biology of humans, some show enough ingenuity to accomplish even that difficult feat. Rumors of terrible "space plagues" that leave behind only drifting ships and garbled warnings remain a steady staple at spacer bars throughout the known universe.

No native biosphere is occasionally found on even the most temperate and otherwise habitable worlds. For one reason or another, life simply never evolved on these worlds, leaving them a

blank slate for the agricultural and ecological efforts of humans. If the world is otherwise amenable to Terran life, such planets can be enormously fertile and agriculturally rich.

They can also be disasters waiting to happen. Pretech xenobiologists compiled standardized colonization packages of plants, animals, and insect life designed to expand smoothly and evenly to fill the niches of an uninhabited world. Not all colonists implemented these packages correctly, and some worlds had disasters or special circumstances that destabilized their efforts. Some empty worlds are now in a state of constant biological flux as the local ecology strives vainly to find some sort of equilibrium between the myriad imported species.

More subtly, these worlds can be suddenly and drastically destabilized by the import of some offworld plant or animal. With no strong native ecology to fight off interlopers, the wrong beast or bug can lay waste to whole continents. These planets tend to be extremely paranoid about importation of foreign life forms.

Human-miscible biospheres are those in which some substantial portion of the native life is biologically compatible with human nutritional needs. The local plants and animals may not be tasty or terribly nourishing, but they can support life without the serious importation of Terran crop seeds and livestock.

Even the friendlier human-miscible biospheres often lack the wide variety of edibles that evolved on Earth, and the natives often supplement their stocks of local foods with limited Terran agriculture. Exotic foods, spices, and liquors can be worth interstellar importation to feed the hunger for novelty on these worlds.

Unfortunately, the fact that humans can eat some native life means that it is very likely that some native life can eat humans in turn. Large predators and diseases capable of human infection are by no means uncommon on these worlds, and small colonies can be hard-pressed to survive them.

Immiscible biospheres are not friendly to humans. None of the local plants or animals are edible, and anything the colony needs to eat will have to be grown from Terran stock. Worse, it is common for the pollen and other microbial life of these worlds to be highly allergenic to humans, requiring the regular use of tailored antiallergenics to prevent eventual respiratory failure.

These worlds are exceptionally susceptible to the temptation of human engineering. Despite the persistent drawbacks, genetic flaws, and handicaps that human engineering usually introduces in a subject, the desperate need to eat can drive worlds to wholesale experimentation on their progeny. The resultant altered humans are often able to digest the local food, but commonly pay for it in shortened life spans, physical disabilities, or an inability to consume Terran foodstuffs.

Immiscible biospheres produce some of the most exotic plants and animals in human space. Unfettered by the limits of familiar evolutionary patterns, creatures of bizarre beauty and strange configurations are found on many of these worlds. Many lack the

intelligence to realize that humans are as poisonous to them as they are to humans.

Hybrid biospheres are a stable intermixing of Terran flora and fauna with local life forms. Most such worlds have been colonized for centuries before the Silence, giving the local ecology time to shake out into a relatively stable configuration of Earth-born organisms and native life. The native biology may or may not be miscible with human life, but it unlikely to be particularly hostile in any case, or else the interloping life forms would not have been able to get a foothold on the planet.

Hybrid biospheres often show strange examples of symbiosis and adaptation, with plants and animals forming new alliances. Large predators from one world may find themselves subsisting on herds of herbivorous alien life, while Terran vegetation provides sustenance for large populations of small, furred, insect-like grazers. Familiar animals may show seemingly bizarre behavior patterns that have formed in response to local conditions, perhaps becoming larger or more aggressive.

Engineered biospheres are among the rarest, as they require enormous time and effort on the part of a highly advanced civilization. Whatever life exists on this planet has been extensively altered by an alien race or by advanced pretech engineering methods. Some such worlds are paradise planets, carefully sculpted by some fabulously wealthy predecessor to suit their own tastes. Others are living forges, where foodstuffs and refined minerals are produced as byproducts from the basic organic processes of the world's biosphere.

Such worlds tend to be fragile. Many engineered worlds are dependent upon regular stabilizing work to prevent genetic drift and adaptations that do not serve the creator's purpose. Without regular pruning and adjustment, engineered biospheres can go badly awry. Some end up leaving nothing but genetic wreckage in their wake, while others go wrong in more subtle ways. Where once the biosphere existed to serve the inhabitants, a creaking engineered biosphere can leave the planet's population chained to constant repair and maintenance efforts just to prevent a planetary collapse.

Population

Planetary populations hinge on a world's habitability. Worlds incapable of growing food on the planet's surface are unlikely to have more than a few hundred thousand inhabitants at best, and truly inimical worlds might be lucky to have a tenth as many. As a rule of thumb, a world ought to have *some* kind of human habitation on it unless the GM has a specific purpose for it in mind. A world untouched by human presence can be interesting in many ways, but without elaboration there's little to distinguish it from the next airless ball of rock.

Humans breed quickly, and will tend to push up against the limits of a world's capacity to feed and support them. Some cultures with sufficient tech might rely on contraceptives and birth licensing to ensure sufficient food for its population, while others might choose or be forced to leave matters to simple Malthusian culling. Wars and diseases may also serve as a check on population, or in some cases, cultures may find themselves so wealthy, self-absorbed and comfortable as to voluntarily choose not to reproduce.

2D6	POPULATION
2	<i>Failed colony</i>
3	<i>Outpost</i>
4-5	<i>Tens of thousands of inhabitants</i>
6-8	<i>Hundreds of thousands of inhabitants</i>
9-10	<i>Millions of inhabitants</i>
11	<i>Billions of inhabitants</i>
12	<i>Alien civilization</i>

Failed colonies are occasionally found dotting the worlds of human space. Some date back to the First Wave of human colonization more than a thousand years ago, while others are more recent efforts that guttered out under the strains of a colony's birth.

Pirate attacks might have wiped out a young colony, as might a hostile biosphere, alien attack, internal dissension, disease outbreaks, failure of vital colonial equipment, or any one of a hundred other disasters. The ruins of the colony might still have valuable pretech artifacts, however, or colonization deeds authorized by neighboring worlds. A few survivors might even have clung to life in the intervening centuries, maintaining some sort of society in the wreckage of their ancestors' work.

Outposts are rarely composed of more than a few hundred or few thousand colonists at the most. Outposts are either very new colonies that have not have the requisite time to grow or they are uncolonized worlds that just happen to have a naval or corporate base on the surface.

Corporate or military outposts aren't intended to be completely self-sufficient. While large outposts are often forced to raise their own food supplies, replacement personnel, spare parts, and advanced tech must all be brought in from elsewhere. Such temporary outposts are known to find themselves in sudden distress when a vital supply ship fails to make its drop or when some local threat proves more than the staff can handle.

Colonial outposts tend to be better equipped but with less outside backing. Such natives expect to live and die on the world, and are more inclined to build permanent structures and local improvements. Many are exiles, malcontents, or others incapable of tolerating the world that sent them forth, and it can make for a somewhat explosive mix in a young colony. These pioneers tend to be very friendly towards visiting starships, as they are often dependent upon free traders and tramp merchants to bring them vital supplies or news of the sector.

Some “outposts” are really just the stubborn, persistent survivors of a long-failed colonization attempt. These cultures can survive for centuries, perpetually culled by the dangers of the world until the survivors are little more than one more element of the local ecology.

Tens of thousands of inhabitants are often found on newly-colonized worlds, or those with limited arable land. With such a small population, most settlements tend to be clustered close to one another for mutual support and efficient exploitation of land. The atmosphere can be something like that of a village-dotted countryside, with too few people to support large, specialized cities. The major settlement of the planet is usually built around the spaceport.

Politics on planets with so few people tend to be very personal in nature. Individual leaders can address the entire population of a world at a single meeting, and networks of family, friends, and employees can dominate the local social life. This small population combined with limited outside contact can result in somewhat... *unusual* societies more strongly influenced by a leader's personal quirks than a more populous planet might be. Some such worlds can grow decidedly unhealthy in their customs and traditions.

Hundreds of thousands of inhabitants make up the population of most frontier worlds, usually ones with adequate supplies of arable land and surface conditions amenable to a human without a vacc suit or filter mask. This level of population is also usually the most that a world at tech level 4 can support using only artificial hydroponic complexes and sealed agricultural systems, so less hospitable planets rarely have more than this many inhabitants.

At this level of population, city-states and hub settlements start to form, and some political divisions might exist beneath the overall planetary government. Regional variations start to become present as towns and smaller settlements start to assert their own cultural traits. Young colonies rarely have much of a framework for resolving these new tensions, and it's not uncommon for outsiders to end up as catspaws for varying factions.

This level of population is normally the smallest that can create spike drive-equipped starships. Less populous worlds rarely have the broad range of specialists and workers necessary to build such ships, even if they possess the necessary technical information.

Millions of inhabitants are found on some of the more populous frontier worlds, those planets with an excellent climate and soil for agriculture. These worlds teem with human life compared to most of their neighbors, and if they have sufficient technological

expertise to build spike drives, they probably are one of the more powerful planets in the sector. The sheer amount of labor and expertise they can put into their projects dwarfs the capabilities of most other worlds.

Some worlds of this type fail to coalesce under a unified planetary government, however, and turn most of their attention to intra-planetary quarrels between different nations or city-states. Full-scale planetary wars have been known to break out on such worlds, with some being reduced to burnt-out cinders by some maltech weapon or by nuclear attacks against regions stripped of their nuke snuffers.

Billions of inhabitants on a world is a freak occurrence in most sectors, a circumstance dependent on almost perfect planetary conditions, a First Wave date of colonization, and a very large initial colonial expedition. These worlds have been colonized for almost a thousand years, and have likely gone through substantial cultural development and change since the original founding.

Planets with this many inhabitants tend to come in two main varieties. The more common is that of regional hegemon, leveraging its enormous reserves of labor and scientific personnel to build hundreds or thousands of starships. Some hegemonies might even have the transport weight and personnel available to colonize or conquer their less powerful neighbors outright, though most hegemonies prefer the safer route of docile client states rather than outright conquests.

Not all such worlds have the necessary resources to build starships, even when the labor is cheap and abundant. These worlds tend to take a different route, becoming balkanized, conflict-torn planets not unlike a mid-20th-century Earth. Resource wars are common and local politics revolve around Byzantine feuds and ancient slights. Technology on such planets tends to be very uneven; it is limited or nonexistent in fields that depend on unavailable resources, but the natives often show remarkable sophistication in making the most of what they have available.

Alien civilizations are even rarer than massively human-populated planets, but they can be found in some sectors. On these worlds, any human presence is either nonexistent or simply a token contingent of traders and diplomats. The actual number of aliens may range from a few tens of thousands to teeming worlds of billions.

Alien civilizations appear to be no more immune to conflict, disaster, and decadence than that of humans, and most alien worlds are isolated planets. Some sectors were known to be dominated by alien empires before the Scream, but most inhabited worlds found by colonial surveyors consisted of indigenous, low-tech sapient beings who evolved on the world, or else were the decaying remnants of a former empire that had fallen apart into isolated colonial worlds.

This fate of growth, expansion, colonization, and collapse appears to be a very common event in the galaxy. Countless alien ruins and lost deep-space artifacts indicate that cycles of growth and decay have been going on for millennia, and there is little way to tell how many alien empires have swept over what is now human space before dwindling to decaying worlds and then empty ruins.

Tech Level

The tech level of a world represents not only the level of technological progress and scientific knowledge available on it, but also the world's ability to translate that knowledge into effective production. A world might still guard texts describing elaborate principles of petrochemical manipulation, but without oil or fossil fuels on the planet they have no way to use the information. It is this kind of resource limitation that most often keeps a world caught at a low level of tech. Without bottleneck resources such as petrochemicals or radioactives, they can't develop the technology that would allow them to do without them.

Tech level 4 is the baseline level of development for planets capable of building fusion plants, spike-drive equipped starships, limited longevity enhancements, and basic energy weapons. A planet without this level of development is effectively cut off from interstellar news and trade without the good offices of free traders or Scavenger Fleet contact.

Tech levels are rough approximations, and every planet is going to have slight variance within that range. A decayed colony is unlikely to have forgotten the basics of human anatomy and practical wound care, but they may not have the local resources to fashion medical tools more sophisticated than obsidian scalpels and herbal poultices. By the same token, a primitive world might have local resources that are exceptionally useful in one or two narrow ranges of technology.

2D6	TECH LEVEL
2	<i>Tech Level 0. Stone-age technology.</i>
3	<i>Tech level 1. Medieval technology.</i>
4	<i>Tech level 2. Nineteenth-century technology.</i>
5-6	<i>Tech level 3. Twentieth-century technology.</i>
7-10	<i>Tech level 4. Baseline posttech.</i>
11	<i>Tech level 4 with specialties or some surviving pretech.</i>
12	<i>Tech level 5. Pretech, pre-Silence technology.</i>

Tech level 0 represents a world with technologies similar to neolithic-era humanity. Very few worlds collapse this far without dying out completely, and so a world this primitive is very rare in human space. The world is so profoundly devoid of useful resources that the natives may simply not have anything better to work with than rocks and native vegetation.

Natives of a world at this tech level might retain elaborate cultural artifacts and a very sophisticated society. Existing resources tend to be exploited to the hilt, with large populations producing massive stone cities, human-powered engines for irrigation, and vast displays of foodstuffs and craft work for the ruling class. Despite this, the lack of metal, domesticated beasts of burden, and petrochemicals puts a hard stop on the technological development of most of these worlds.

Responses to free traders and other interstellar travellers will vary with the local culture. The lack of quick communications methods tends to result in large populations breaking up into

numerous smaller regional cultures, and the friendly prince of one domain might neighbor an implacably hostile sage-king. Most "lostworlders" have a keen appreciation for the benefits these strangers from the sky can bring them, and will bargain accordingly.

Some worlds might retain crisply rational records of their colonization and downfall. Others might preserve tales of a starry origin in legends and story. A few might have forgotten their origins entirely, and view sky-born humans as gods or messengers of the divine. Such awe rarely lasts very long once the merchants or pirates who landed make their purposes clear.

Tech level 1 worlds have managed to find and exploit metal deposits and likely have imported or domesticated beasts of burden. Those worlds with easy access to fossil fuels or a similarly energy-dense substance can advance to greater things, but a culture trapped at tech level 1 is unlikely to have access to such helpful resources. A few worlds have enough plant matter or other combustibles to make steam engines feasible, but those with very much of such a resource usually make the leap to the next tech level eventually.

As a consequence, tech level 1 worlds tend to be caught at much the same general level of development as their tech level 0 cousins. They may have elaborate social structures and cultural development, but they are unable to mechanize without some energy-dense resource to serve as fuel. The scavenged hulks of their ancestors' fusion plants may stand as mute temples to the achievements of their forebears, but without the tech necessary to repair and rebuild such edifices the world is dependent on purely local fuel sources.

Tech level 1 worlds tend to respond to visitors in much the same way as tech level 0 planets. The ruling class of these worlds is liable to be able to muster larger cities, bigger armies, and all the other perquisites that come from being able to work the available agricultural land with fewer hands.

Tech level 2 worlds are blessed with the presence of fossil fuels. Internal combustion engines are crude things compared to the power of a fusion plant, but they can be built with primitive tools and a basic degree of education. The mechanization that results from this resource vastly increases the efficiency of local farming, the speed of travel, and the productivity of factory workers.

Most tech level 2 worlds are "knockdowns"; planets that once had a much higher degree of sophistication but were recently crippled by disease, disaster, or invasion. The natives tend to be keenly aware of the glories of former generations, and work fiercely to redevelop lost techniques and reclaim old knowledge.

Few tech level 2 worlds produce much that's worth interstellar trade. Most foodstuffs are too bulky and cheap to make it worth a captain's time. Some worlds have rare ore deposits, but the natives have no reason to dig them until a merchant makes it worth their while to set up a whole new industry for export. Some such worlds barter the relics of their ancestors in exchange for educational materials or rare resources necessary for advancing local industry. Others feel forced to trade native work contracts for dangerous, dirty labor.

Tech level 3 worlds are those that have developed to a level much like that of the more advanced nations of late twentieth-century Earth. The main difference between tech level 3 worlds and level 4 worlds is the lack of fusion power or spike drive manufacture.

These worlds come in two major varieties. The first is a “knockdown” world that formerly had tech level 4 technologies before some catastrophe or pirate attack destroyed their knowledge and industrial base. Some of the wrecked infrastructure might have been irreplaceable, and the world must struggle to regain its former level of technological production. Worlds in this condition tend to have rather small populations that are susceptible to the loss of a few concentrated groups of experts.

The second major variety is a world that suffered a severe disaster shortly after colonization and has been forced to painstakingly build up their technological base ever since. Some of these worlds date back to the First Wave of colonization a thousand years ago, driven into near-neolithic conditions by some outside pressure before slowly and painfully rebuilding their technological base through purely indigenous efforts. These worlds tend to have very large populations if the world’s climate permits, as they have been colonized for quite some time.

Simply providing a world with the necessary technical data for advancement doesn’t mean that advancement will be quick or even. Even if a tech level 3 world has the necessary resources to build tech level 4 devices, it may take as much as a generation for a world to build the necessary infrastructure and resource extraction enterprises. The time may be longer still if the dominant cultures are uneasy with the new technology.

Tech level 4 worlds are the most common in human space, and their technical expertise is the baseline for modern post-Silence “postech”. These worlds can create spike drives rated up to drive-3, fusion power plants, grav vehicles, simple energy weapons, and medicines that extend human life to a hundred years of vigorous good health. They can manage sophisticated engineering on simple life forms, and some tech level 4 worlds have even attempted to improve the genetic structures of human life itself. These attempts have yet to produce results without severe drawbacks, but some such worlds remain populated by altered humanity designed to cope with local conditions more perfectly than baseline humans.

Most worlds with regular interstellar contact and the necessary raw resources eventually gravitate towards this level of technological expertise. It may take decades, or even centuries in the case of more retrograde worlds, but this tech level is the highest that can readily be achieved by most planets.

Tech level 4 with specialties is an unusual case of a normal tech level 4 world that has retained some pretech industries or has developed their own local technical expertise beyond baseline postech in certain disciplines.

Most such specialties are relatively narrow in scope; grav tech, medicine, hydroponics, force field generation, or some field of roughly similar breadth. These specialties are usually either the product of a few, unreplaceable pretech manufactories or the result of some unique local resource that serves amazingly well for the purpose at hand. In both cases, the world will jealously guard the tech, and much local conflict may relate to control over these resources.

These worlds tend to have substantial amounts of interstellar trade from neighboring worlds interested in their tech. The ruling elite of the world can be ostentatious about display of this wealth.

Tech level 5 is the highest tech level that might merit random placement. A world with this level of technological expertise has somehow managed to hold on to the majority of the pre-Scream technology base, and can produce a wide range of goods that are unknown on less sophisticated worlds. Miniaturized fusion plants, drive-6 rated spike drives, exotic grav weaponry, and even the development of psionics-based “psitech” is possible on such a world.

Pretech manufacturing was largely dependent on specially-trained industrial psychics. With the loss of their unique disciplines in the Scream, most worlds that retain this level of tech classification were forced to substitute slower, less precise methods that sharply curtailed their production efficiency. Barring the profoundly unlikely happenstance of this world’s redevelopment of the lost disciplines, their maximum industrial output is sharply limited. Even on worlds such as this, most technology is likely mass-produced postech, with only important goods produced to pretech levels of quality.

A world with this level of technology is almost certainly a regional hegemon, one of the most powerful and influential worlds in the sector. Even those worlds that have no imperial ambitions have enormous influence simply through the vast superiority of their starships and military technology.

Assigning World Tags

The final step in world creation, and perhaps the most important, lies in assigning “tags” to the world. Tags are brief conceptual tropes that set the world off from planets of otherwise similar population and characteristics. You can either pick from the tag table to select qualities that sound interesting for a world, or else roll 1d6 and 1d10 to select them randomly.

In general, you should pick or roll two tags for any given world. Using a single tag can leave a planet feeling somewhat flat and one-dimensional, while using three or more can end up muddying the feel of the world. The goal of the tags is not to automatically combine into some intricately sophisticated world model, but to provide some clear, bright elements to relate to the PCs. Tags can randomly give you “desert planet torn by civil war”, from which you can then create “an arid world riven by factional disputes between fragmented clans, the families based around ownership of irreplaceable pre-Scream moisture collectors”.

Each tag includes associated entries for Enemies, Friends, Complications, Things, and Places that fit with that tag. GMs can combine the elements of the two tags to create ones flavored specifically for that world. For example, two random tags for a world might be “Regional Hegemon” and “Psionics Fear”. Combining the “Colonial Official” and “Mental Purity Investigator” entries from the enemies lists of those tags, we come up with Heinrich Stalt, Imperial Mind Proctor, a grim inquisitor dispatched to the worlds under Imperial “protection” to purge them of the awful curse of psionically-active monsters.

On the Sector File record sheet for the world, you should fill in about three samples for each category of Enemy, Friend, Complication, Thing, or Place. Giving NPCs names and a few small details can be useful at this stage. Later on, these elements will be used in the Adventure Generation chapter to create adventure outlines for the PCs, so try to make sure the elements are the sort of thing that would interest the PC group.

You should feel free to come up with your own tags as well, of course. Almost any science-fiction trope that you enjoy can be turned into a tag, and characteristic elements can be blended into the list of adventure components.

ID6	ID10	WORLD TAG	ID6	ID10	WORLD TAG
1	1	<i>Abandoned Colony</i>	4	1	<i>Out of Contact</i>
	2	<i>Alien Ruins</i>		2	<i>Outpost World</i>
	3	<i>Altered Humanity</i>		3	<i>Perimeter Agency</i>
	4	<i>Area 51</i>		4	<i>Pilgrimage Site</i>
	5	<i>Badlands World</i>		5	<i>Police State</i>
	6	<i>Bubble Cities</i>		6	<i>Preceptor Archive</i>
	7	<i>Civil War</i>		7	<i>Pretech Cultists</i>
	8	<i>Cold War</i>		8	<i>Primitive Aliens</i>
	9	<i>Colonized Population</i>		9	<i>Psionics Fear</i>
	10	<i>Desert World</i>		10	<i>Psionics Worship</i>
2	1	<i>Eugenic Cult</i>	5	1	<i>Psionics Academy</i>
	2	<i>Exchange Consulate</i>		2	<i>Quarantined World</i>
	3	<i>Feral World</i>		3	<i>Radioactive World</i>
	4	<i>Flying Cities</i>		4	<i>Regional Hegemon</i>
	5	<i>Forbidden Tech</i>		5	<i>Restrictive Laws</i>
	6	<i>Freak Geology</i>		6	<i>Rigid Culture</i>
	7	<i>Freak Weather</i>		7	<i>Seagoing Cities</i>
	8	<i>Friendly Foe</i>		8	<i>Sealed Menace</i>
	9	<i>Gold Rush</i>		9	<i>Sectarians</i>
	10	<i>Hatred</i>		10	<i>Seismic Instability</i>
3	1	<i>Heavy Industry</i>	6	1	<i>Secret Masters</i>
	2	<i>Heavy Mining</i>		2	<i>Theocracy</i>
	3	<i>Hostile Biosphere</i>		3	<i>Tomb World</i>
	4	<i>Hostile Space</i>		4	<i>Trade Hub</i>
	5	<i>Local Specialty</i>		5	<i>Tyranny</i>
	6	<i>Local Tech</i>		6	<i>Unbraked AI</i>
	7	<i>Major Spaceyard</i>		7	<i>Warlords</i>
	8	<i>Minimal Contact</i>		8	<i>Xenophiles</i>
	9	<i>Misandry/Misogyny</i>		9	<i>Xenophobes</i>
	10	<i>Oceanic World</i>		10	<i>Zombies</i>

Select the Cultural Flavor

Most frontier worlds are Second Wave colonies, established between nine and six hundred years ago by colonists from worlds closer to Terra or by discontented natives of humanity's homeworld. Some of these expeditions were from a single nation or cultural group, while others were a blend of many different nationalities and ethnic groups. In the centuries since, these cultures have naturally drifted and changed based on the pressures of their new homeworld, the consequences of new technology, and the influence of natural cultural development.

It can still be useful to identify a predominant cultural strain for the world as it adds one more element to individualize the place. The Resources chapter includes a table for the random selection of cultures, or you can simply pick one that suits. Multiple cultures might fit, if the world was colonized by a mixed group or if you want to have a less recognizable culture predominate.

It's important to note that these cultural hints shouldn't be used simply to stereotype the inhabitants, or fit them into national caricatures. Their real utility is in determining personal names, religions, the names of political offices, cultural institutions, architectural styles, culinary habits, and the other details of daily life.

If you know the world has a Japanese cultural flavor, for example, you can likely improvise the contents of a meal, ad-lib details of local dress, and quickly pick names for minor NPCs. These details may not be perfectly true to reality, but any discrepancies can be explained by the centuries of cultural drift since the present day.

Pick the Local Language

A modified form of English is the lingua franca of the future, but not every world uses it for local affairs. Worlds cut off from interstellar traffic might not use it at all, while other insular planets may prefer to maintain their traditional tongue. Religious specialists, ethnic minorities, or other subgroups might also have their own special language. Some worlds might have developed its own native tongue only vaguely related to its parent language.

Determine the Government

Mark down a few notes as to the form of the world's general government. Is it a monarchy? A feudal world? Democratic in nature, or run by corporate oligarchs? The world tags may give the answer to this question if the world is a "Tyranny" or "Theocracy", but otherwise you should simply pick something that sounds interesting. If you don't have any special plans for the world's government, it's safest to choose a representative democracy, as that structure will be the most intuitively clear to most players.

While you're at it, you should also spare a little thought for the law enforcement on the world, PC groups being somewhat careless about issues of legality. Any special laws or restrictions on weaponry or armor should be noted accordingly on the Planet Record sheet.

Dress the Spaceport

Take a moment to choose the name of the city where the world's chief spaceport is located, and pick a few notable characteristics about it. Is it a poor place? Has it got unusual smells, sounds, or local architecture? This spaceport and city will be the first thing the PCs see of the planet, so it should be characteristic of the place.

You should make a few notes about the places that the PCs are most likely to visit on arrival. The name of a local hotel or boarding house, bar, equipment store, and perhaps one or two other useful places.

Name the Planet

Finally, name the world. By now, you should know a great deal about the place and should be able to pick a fitting name for the world. A place name chosen from the Resources chapter might suit, or a compound word describing some important feature of the planet, or possibly just the name of the star followed by the number of the planet's orbital sequence.

ABANDONED COLONY

The world once hosted a colony, whether human or otherwise, until some crisis or natural disaster drove the inhabitants away or killed them off. The colony might have been mercantile in nature, an expedition to extract valuable local resources, or it might have been a reclusive cabal of zealots. The remains of the colony are usually in ruins, and might still be dangerous from the aftermath of whatever destroyed it in the first place.

ENEMIES	Crazed survivors, Ruthless plunderers of the ruins, Automated defense system
FRIENDS	Inquisitive stellar archaeologist, Heir to the colony's property, Local wanting the place cleaned out
COMPLICATIONS	The local government wants the ruins to remain a secret, The locals claim ownership of it, The colony is crumbling and dangerous to navigate
THINGS	Long-lost property deeds, Relic stolen by the colonists when they left, Historical record of the colonization attempt
PLACES	Decaying habitation block, Vine-covered town square, Structure buried by an ancient landslide

ALIEN RUINS

The world has significant alien ruins present. The locals may or may not permit others to investigate the ruins, and may make it difficult to remove any objects of value without substantial payment.

ENEMIES	Customs inspector, Worshipper of the ruins, Hidden alien survivor
FRIENDS	Curious scholar, Avaricious local resident, Interstellar smuggler
COMPLICATIONS	Traps in the ruins, Remote location, Paranoid customs officials
THINGS	Precious alien artifacts, Objects left with the remains of a prior unsuccessful expedition, Untranslated alien texts, Untouched hidden ruins
PLACES	Undersea ruin, Orbital ruin, Perfectly preserved alien building, Alien mausoleum

ALTERED HUMANITY

The humans on this world are visibly and drastically different from normal humanity. They may have additional limbs, new sensory organs, or other significant changes. Were these from ancestral eugenic manipulation, or from environmental toxins?

ENEMIES	Biochauvinist local, Local experimenter, Mentally unstable mutant
FRIENDS	Local seeking a "cure", Curious xenophiliac, Anthropological researcher
COMPLICATIONS	Alteration is contagious, Alteration is necessary for long-term survival, Locals fear and mistrust non-local humans
THINGS	Original pretech mutagenic equipment, Valuable biological byproduct from the mutants, "Cure" for the altered genes, Record of the original colonial genotypes
PLACES	Abandoned eugenics laboratory, An environment requiring the mutation for survival, A sacred site where the first local was transformed

AREA 51

The world's government is fully aware of their local stellar neighbors, but the common populace has no idea about it- and the government means to keep it that way. Trade with government officials in remote locations is possible, but any attempt to clue the commoners in on the truth will be met with lethal reprisals.

ENEMIES	Suspicious government minder, Free merchant who likes his local monopoly, Local who wants a specimen for dissection
FRIENDS	Crusading offworld investigator, Conspiracy-theorist local, Idealistic government reformer
COMPLICATIONS	The government has a good reason to keep the truth concealed, The government ruthlessly oppresses the natives, The government is actually composed of offworlders
THINGS	Elaborate spy devices, Memory erasure tech, Possessions of the last offworlder who decided to spread the truth
PLACES	Desert airfield, Deep subterranean bunker, Hidden mountain valley

BADLANDS WORLD

Whatever the ostensible climate and atmosphere type, something horrible happened to this world. Biological, chemical, or nanotechnical weaponry has reduced it to a wretched hellscape.

ENEMIES	Mutated badlands fauna, Desperate local, Badlands raider chief
FRIENDS	Native desperately wishing to escape the world, Scientist researching ecological repair methods, Ruin scavenger
COMPLICATIONS	Radioactivity, Bioweapon traces, Broken terrain, Sudden local plague
THINGS	Maltech research core, Functional pretech weaponry, An uncontaminated well
PLACES	Untouched oasis, Ruined city, Salt flat

BUBBLE CITIES

Whether due to a lack of atmosphere or an uninhabitable climate, the world's cities exist within domes or pressurized buildings. In such sealed environments, techniques of surveillance and control can grow baroque and extreme.

ENEMIES	Native dreading outsider contamination, Saboteur from another bubble city, Local official hostile to outsider ignorance of laws
FRIENDS	Local rebel against the city officials, Maintenance chief in need of help, Surveyor seeking new building sites
COMPLICATIONS	Bubble rupture, Failing atmosphere reprocessor, Native revolt against officials, All-seeing surveillance cameras
THINGS	Pretech habitat technology, Valuable industrial products, Master key codes to a city's security system
PLACES	City power core, Surface of the bubble, Hydroponics complex, Warren-like hab block

CIVIL WAR

The world is currently torn between at least two opposing factions, all of which claim legitimacy. The war may be the result of a successful rebel uprising against tyranny, or it might just be the result of schemers who plan to be the new masters once the revolution is complete.

ENEMIES	Faction commissar, Angry native, Conspiracy theorist who blames offworlders for the war, Deserter looking out for himself, Guerilla bandits
FRIENDS	Faction loyalist seeking aid, Native caught in the crossfire, Offworlder seeking passage off the planet
COMPLICATIONS	The front rolls over the group, Famine strikes, Bandit infestations
THINGS	Ammo dump, Military cache, Treasure buried for after the war, Secret war plans
PLACES	Battle front, Bombed-out town, Rear-area red light zone, Propaganda broadcast tower

COLD WAR

Two or more great powers control the planet, and they have a hostility to each other that's just barely less than open warfare. The hostility might be ideological in nature, or it might revolve around control of some local resource.

ENEMIES	Suspicious chief of intelligence, Native who thinks the outworlders are with the other side, Femme fatale
FRIENDS	Apolitical information broker, Spy for the other side, Unjustly accused innocent, "He's a bastard, but he's our bastard" official
COMPLICATIONS	Police sweep, Low-level skirmishing, "Red scare"
THINGS	List of traitors in government, secret military plans, Huge cache of weapons built up in preparation for war
PLACES	Seedy bar in a neutral area, Political rally, Isolated area where fighting is underway

COLONIZED POPULATION

A neighboring world has successfully colonized this less-advanced or less-organized planet, and the natives aren't happy about it. A puppet government may exist, but all real decisions are made by the local viceroy.

ENEMIES	Suspicious security personnel, Offworlder-hating natives, Local crime boss preying on rich offworlders
FRIENDS	Native resistance leader, Colonial official seeking help, Native caught between the two sides
COMPLICATIONS	Natives won't talk to offworlders, Colonial repression, Misunderstood local customs
THINGS	Relic of the resistance movement, List of collaborators, Precious substance extracted by colonial labor
PLACES	Deep wilderness resistance camp, City district off-limits to natives, Colonial labor site

DESERT WORLD

The world may have a breathable atmosphere and a human-tolerable temperature range, but it is an arid, stony waste outside of a few places made habitable by human effort. The deep wastes are largely unexplored and inhabited by outcasts and worse.

ENEMIES	Raider chieftain, Crazy hermit, Angry isolationists, Paranoid mineral prospector, Strange desert beast
FRIENDS	Native guide, Research biologist, Aspiring terraformer
COMPLICATIONS	Sandstorms, Water supply failure, Native warfare over water rights
THINGS	Enormous water reservoir, Map of hidden wells, Pretech rainmaking equipment
PLACES	Oasis, "The Empty Quarter" of the desert, Hidden underground cistern

EUGENIC CULT

Even in the days before the Silence, major improvement of the human genome always seemed to come with unacceptable side-effects. Some worlds host secret cults that perpetuate these improvements regardless of the cost, and a few planets have been taken over entirely by the cults.

ENEMIES	Eugenic superiority fanatic, Mentally unstable homo superior, Mad eugenic scientist
FRIENDS	Eugenic propagandist, Biotechnical investigator, Local seeking revenge on cult
COMPLICATIONS	The altered cultists look human, The locals are terrified of any unusual physical appearance, The genetic modifications- and drawbacks- are contagious with long exposure
THINGS	Serum that induces the alteration, Elixir that reverses the alteration, Pretech biotechnical databanks, List of secret cult sympathizers
PLACES	Eugenic breeding pit, Isolated settlement of altered humans, Public place infiltrated by cult sympathizers

EXCHANGE CONSULATE

The Exchange of Light once served as the largest, most trusted banking and diplomatic service in human space. Even after the Silence, some worlds retain a functioning Exchange Consulate where banking services and arbitration can be arranged.

ENEMIES	Corrupt Exchange official, Indebted native who thinks the players are Exchange agents, Exchange official dunning the players for debts incurred
FRIENDS	Consul in need of offworld help, Local banker seeking to hurt his competition, Exchange diplomat
COMPLICATIONS	The local Consulate has been corrupted, the Consulate is cut off from its funds, A powerful debtor refuses to pay
THINGS	Exchange vault codes, Wealth hidden to conceal it from a bankruptcy judgment, Location of forgotten vault
PLACES	Consulate meeting chamber, Meeting site between fractious disputants, Exchange vault

FERAL WORLD

In the long, isolated night of the Silence, some worlds have experienced total moral and cultural collapse. Whatever remains has been twisted beyond recognition into assorted death cults, xenophobic fanaticism, horrific cultural practices, or other behavior unacceptable on more enlightened worlds. These worlds are almost invariably classed under Red trade codes.

ENEMIES	Decadent noble, Mad cultist, Xenophobic local, Cannibal chief, Maltech researcher
FRIENDS	Trapped outworlder, Aspiring reformer, Native wanting to avoid traditional flensing
COMPLICATIONS	Horrific local “celebration”, Inexplicable and repugnant social rules, Taboo zones and people
THINGS	Terribly misused piece of pretech, Wealth accumulated through brutal evildoing, Valuable possession owned by luckless outworlder victim
PLACES	Atrocity amphitheater, Traditional torture parlor, Ordinary location twisted into something terrible.

FLYING CITIES

Perhaps the world is a gas giant, or plagued with unendurable storms at lower levels of the atmosphere. For whatever reason, the cities of this world fly above the surface of the planet. Perhaps they remain stationary, or perhaps they move from point to point in search of resources.

ENEMIES	Rival city pilot, Tech thief attempting to steal outworld gear, Saboteur or scavenger plundering the city’s tech
FRIENDS	Maintenance tech in need of help, City defense force pilot, Meteorological researcher
COMPLICATIONS	Sudden storms, Drastic altitude loss, Rival city attacks, Vital machinery breaks down
THINGS	Precious refined atmospheric gases, Pretech grav engine plans, Meteorological codex predicting future storms
PLACES	Underside of the city, The one calm place on the planet’s surface, Catwalks stretching over unimaginable gulfs below.

FORBIDDEN TECH

Some group on this planet fabricates or uses maltech. Unbraked AIs doomed to metastasize into insanity, nation-destroying nanowarfare particles, slow-burn DNA corruptives, genetically engineered slaves, or something worse still. The planet’s larger population may or may not be aware of the danger in their midst.

ENEMIES	Mad scientist, Maltech buyer from offworld, Security enforcer
FRIENDS	Victim of maltech, Perimeter agent, Investigative reporter, Conventional arms merchant
COMPLICATIONS	The maltech is being fabricated by an unbraked AI, The government depends on revenue from maltech sales to offworlders, Citizens insist that it’s not really maltech
THINGS	Maltech research data, The maltech itself, Precious pretech equipment used to create it
PLACES	Horrific laboratory, Hellscape sculpted by the maltech’s use, Government building meeting room

FRIENDLY FOE

Some hostile alien race or malevolent cabal has a branch or sect on this world that is actually quite friendly toward outsiders. For whatever internal reason, they are willing to negotiate and deal honestly with strangers, and appear to lack the worst impulses of their fellows.

ENEMIES	Driven hater of all their kind, Internal malcontent bent on creating conflict, Secret master who seeks to lure trust
FRIENDS	Well-meaning bug-eyed monster, Principled eugenics cultist, Suspicious investigator
COMPLICATIONS	The group actually is as harmless and benevolent as they seem, The group offers a vital service at the cost of moral compromise, The group still feels bonds of affiliation with their hostile brethren
THINGS	Forbidden xenotech, Eugenic biotech template, Evidence to convince others of their kind that they are right
PLACES	Repurposed maltech laboratory, Alien conclave building, Widely-feared starship interior

FREAK GEOLOGY

The geology or geography of this world is simply freakish. Perhaps it's composed entirely of enormous mountain ranges, or regular bands of land and sea, or the mineral structures all fragment into perfect cubes. The locals have learned to deal with it and their culture will be shaped by its requirements.

ENEMIES	Crank xenogeologist, Cultist who believes it the work of aliens
FRIENDS	Research scientist, Prospector, Artist
COMPLICATIONS	Local conditions that no one remembers to tell outworlders about, Lethal weather, Seismic activity
THINGS	Unique crystal formations, Hidden veins of a major precious mineral strike, Deed to a location of great natural beauty
PLACES	Atop a bizarre geological formation, Tourist resort catering to offworlders

FREAK WEATHER

The planet is plagued with some sort of bizarre or hazardous weather pattern. Perhaps city-flattening storms regularly scourge the surface, or the world's sun never pierces its thick banks of clouds.

ENEMIES	Criminal using the weather as a cover, Weather cultists convinced the offworlders are responsible for some disaster, Native predators dependent on the weather
FRIENDS	Meteorological researcher, Holodoc crew wanting shots of the weather
COMPLICATIONS	The weather itself, Malfunctioning pretech terraforming engines that cause the weather
THINGS	Wind-scoured deposits of precious minerals, Holorecords of a spectacularly and rare weather pattern, Naturally-sculpted objects of intricate beauty
PLACES	Eye of the storm, The one sunlit place, Terraforming control room

GOLD RUSH

Gold, silver, and other conventional precious minerals are common and cheap now that asteroid mining is practical for most worlds. But some minerals and compounds remain precious and rare, and this world has recently been discovered to have a supply of them. People from across the sector have come to strike it rich.

ENEMIES	Paranoid prospector, Aspiring mining tycoon, Rapacious merchant
FRIENDS	Claim-jumped miner, Native alien, Curious tourist
COMPLICATIONS	The strike is a hoax, The strike is of a dangerous toxic substance, Export of the mineral is prohibited by the planetary government, The native aliens live around the strike's location
THINGS	Cases of the refined element, Pretech mining equipment, A dead prospector's claim deed
PLACES	Secret mine, Native alien village, Processing plant, Boom town

HATRED

For whatever reason, this world's populace has a burning hatred for the inhabitants of a neighboring system. Perhaps this world was colonized by exiles, or there was a recent interstellar war, or ideas of racial or religious superiority have fanned the hatred. Regardless of the cause, the locals view their neighbor and any sympathizers with loathing.

ENEMIES	Native convinced that the offworlders are agents of Them, Cynical politician in need of scapegoats
FRIENDS	Intelligence agent needing catspaws, Holodoc producers needing "an inside look"
COMPLICATIONS	The characters are wearing or using items from the hated world, The characters are known to have done business there, The characters "look like" the hated others
THINGS	Proof of Their evildoing, Reward for turning in enemy agents, Relic stolen by Them years ago
PLACES	War crimes museum, Atrocity site, Captured, decommissioned spaceship kept as a trophy

HEAVY INDUSTRY

With interstellar transport so limited in the bulk it can move, worlds have to be largely self-sufficient in industry. Some worlds are more sufficient than others, however, and this planet has a thriving manufacturing sector capable of producing large amounts of goods appropriate to its tech level. The locals may enjoy a correspondingly higher lifestyle, or the products might be devoted towards vast projects for the aggrandizement of the rulers.

ENEMIES	Tycoon monopolist, Industrial spy, Malcontent revolutionary
FRIENDS	Aspiring entrepreneur, Worker union leader, Ambitious inventor
COMPLICATIONS	The factories are toxic, The resources extractable at their tech level are running out, The masses require the factory output for survival, The industries' major output is being obsoleted by offworld tech
THINGS	Confidential industrial data, Secret union membership lists, Ownership shares in an industrial complex
PLACES	Factory floor, Union meeting hall, Toxic waste dump, R&D complex

HEAVY MINING

This world has large stocks of valuable minerals, usually necessary for local industry, life support, or refinement into loads small enough to export offworld. Major mining efforts are necessary to extract the minerals, and many natives work in the industry.

ENEMIES	Mine boss, Tunnel saboteur, Subterranean predators
FRIENDS	Hermit prospector, Offworld investor, Miner's union representative
COMPLICATIONS	The refinery equipment breaks down, Tunnel collapse, Silicate life forms growing in the miners' lungs
THINGS	The mother lode, Smuggled case of refined mineral, Faked crystalline mineral samples
PLACES	Vertical mine face, Tailing piles, Roaring smelting complex

HOSTILE BIOSPHERE

The world is teeming with life, and it hates humans. Perhaps the life is xenoallergenic, forcing filter masks and tailored antiallergens for survival. It could be the native predators are huge and fearless, or the toxic flora ruthlessly outcompetes earth crops.

ENEMIES	Local fauna, Nature cultist, Native aliens, Callous labor overseer
FRIENDS	Xenobiologist, Tourist on safari, Grizzled local guide
COMPLICATIONS	Filter masks fail, Parasitic alien infestation, Crop greenhouses lose bio-integrity
THINGS	Valuable native biological extract, Abandoned colony vault, Remains of an unsuccessful expedition
PLACES	Deceptively peaceful glade, Steaming polychrome jungle, Nightfall when surrounded by Things

HOSTILE SPACE

The system in which the world exists is a dangerous neighborhood. Something about the system is perilous to inhabitants, either through meteor swarms, stellar radiation, hostile aliens in the asteroid belt, or periodic comet clouds.

ENEMIES	Alien raid leader, Meteor-launching terrorists, Paranoid local leader
FRIENDS	Astronomic researcher, Local defense commander, Early warning monitor agent
COMPLICATIONS	The natives believe the danger is divine chastisement, The natives blame outworlders for the danger, The native elite profit from the danger in some way
THINGS	Early warning of a raid or impact, Abandoned riches in a disaster zone, Key to a secure bunker
PLACES	City watching an approaching asteroid, Village burnt in an alien raid, Massive ancient crater

LOCAL SPECIALTY

The world may be sophisticated or barely capable of steam engines, but either way it produces something rare and precious to the wider galaxy. It might be some pharmaceutical extract produced by a secret recipe, a remarkably popular cultural product, or even gengineered humans uniquely suited for certain work.

ENEMIES	Monopolist, Offworlder seeking prohibition of the specialty, Native who views the specialty as sacred
FRIENDS	Spy searching for the source, Artisan seeking protection, Exporter with problems
COMPLICATIONS	The specialty is repugnant in nature, The crafters refuse to sell to offworlders, The specialty is made in a remote, dangerous place, The crafters don't want to make the specialty any more
THINGS	The specialty itself, The secret recipe, Sample of a new improved variety
PLACES	Secret manufactory, Hidden cache, Artistic competition for best artisan

LOCAL TECH

The locals can create a particular example of extremely high tech, possibly even something that exceeds pretech standards. They may use unique local resources to do so, or have stumbled on a narrow scientific breakthrough, or still have a functional experimental manufactory.

ENEMIES	Keeper of the tech, Offworld industrialist, Automated defenses that suddenly come alive, Native alien mentors
FRIENDS	Curious offworld scientist, Eager tech buyer, Native in need of technical help
COMPLICATIONS	The tech is unreliable, The tech only works on this world, The tech has poorly-understood side effects, The tech is alien in nature.
THINGS	The tech itself, An unclaimed payment for a large shipment, The secret blueprints for its construction, An ancient alien R&D database
PLACES	Alien factory, Lethal R&D center, Tech brokerage vault

MAJOR SPACEYARD

Most worlds of tech level 4 or greater have the necessary tech and orbital facilities to build spike drives and starships. This world is blessed with a major spaceyard facility, either inherited from before the Silence or painstakingly constructed in more recent decades. It can build even capital-class hulls, and do so more quickly and cheaply than its neighbors.

ENEMIES	Enemy saboteur, Industrial spy, Scheming construction tycoon, Aspiring ship hijacker
FRIENDS	Captain stuck in drydock, Maintenance chief, Mad innovator
COMPLICATIONS	The spaceyard is an alien relic, The spaceyard is burning out from overuse, The spaceyard is alive, The spaceyard relies on maltech to function
THINGS	Intellectual property-locked pretech blueprints, Override keys for activating old pretech facilities, A purchased but unclaimed spaceship.
PLACES	Hidden shipyard bay, Surface of a partially-completed ship, Ship scrap graveyard

MINIMAL CONTACT

The locals refuse most contact with offworlders. Only a small, quarantined treaty port is provided for offworld trade, and ships can expect an exhaustive search for contraband. Local governments may be trying to keep the very existence of interstellar trade a secret from their populations, or they may simply consider offworlders too dangerous or repugnant to be allowed among the population.

ENEMIES	Customs official, Xenophobic natives, Existing merchant who doesn't like competition
FRIENDS	Aspiring tourist, Anthropological researcher, Offworld thief, Religious missionary
COMPLICATIONS	The locals carry a disease harmless to them and lethal to outsiders, The locals hide dark purposes from offworlders, The locals have something desperately needed but won't bring it into the treaty port
THINGS	Contraband trade goods, Security perimeter codes, Black market local products
PLACES	Treaty port bar, Black market zone, Secret smuggler landing site

MISANDRY/MISOGYNY

The culture on this world holds a particular gender in contempt. Members of that gender are not permitted positions of formal power, and may be restricted in their movements and activities. Some worlds may go so far as to scorn both traditional genders, using engineering techniques to hybridize or alter conventional human biology.

ENEMIES	Cultural fundamentalist, Cultural missionary to outworlders
FRIENDS	Oppressed native, Research scientist, Offworld emancipationist, Local reformer
COMPLICATIONS	The oppressed gender is restive against the customs, The oppressed gender largely supports the customs, The customs relate to some physical quality of the world, The oppressed gender has had maltech engineering done to “tame” them.
THINGS	Aerosol reversion formula for undoing engineered docility, Hidden history of the world, Pretech engineering equipment
PLACES	Shrine to the virtues of the favored gender, Security center for controlling the oppressed, Gengineering lab

OCEANIC WORLD

The world is entirely or almost entirely covered with liquid water. Habitations might be floating cities, or might cling precariously to the few rocky atolls jutting up from the waves, or are planted as bubbles on promontories deep beneath the stormy surface. Survival depends on aquaculture. Planets with inedible alien life rely on engineered Terran sea crops.

ENEMIES	Pirate raider, Violent “salvager” gang, Tentacled sea monster
FRIENDS	Daredevil fisherman, Sea hermit, Sapient native life
COMPLICATIONS	The liquid flux confuses grav engines too badly for them to function on this world, Sea is corrosive or toxic, The seas are wracked by regular storms
THINGS	Buried pirate treasure, Location of enormous schools of fish, Pretech water purification equipment
PLACES	The only island on the planet, Floating spaceport, Deck of a storm-swept ship, Undersea bubble city

OUT OF CONTACT

The natives have been entirely out of contact with the greater galaxy for centuries or longer. Perhaps the original colonists were seeking to hide from the rest of the universe, or the Silence destroyed any means of communication. It may have been so long that human origins on other worlds have regressed into a topic for legends. The players might be on the first offworld ship to land since the First Wave of colonization a thousand years ago.

ENEMIES	Fearful local ruler, Zealous native cleric, Sinister power that has kept the world isolated
FRIENDS	Scheming native noble, Heretical theologian, UFO cultist native
COMPLICATIONS	Automatic defenses fire on ships that try to take off, The natives want to stay out of contact, The natives are highly vulnerable to offworld diseases, The native language is completely unlike any known to the group
THINGS	Ancient pretech equipment, Terran relic brought from Earth, Logs of the original colonists
PLACES	Long-lost colonial landing site, Court of the local ruler, Ancient defense battery controls

OUTPOST WORLD

The world is only a tiny outpost of human habitation planted by an offworld corporation or government. Perhaps the staff is there to serve as a refueling and repair stop for passing ships, or to oversee an automated mining and refinery complex. They might be there to study ancient ruins, or simply serve as a listening and monitoring post for traffic through the system. The outpost is likely well-equipped with defenses against casual piracy.

ENEMIES	Space-mad outpost staffer, Outpost commander who wants it to stay undiscovered, Undercover saboteur
FRIENDS	Lonely staffer, Fixated researcher, Overtaxed maintenance chief
COMPLICATIONS	The alien ruin defense systems are waking up, Atmospheric disturbances trap the group inside the outpost for a month, Pirates raid the outpost, The crew have become converts to a strange set of beliefs
THINGS	Alien relics, Vital scientific data, Secret corporate exploitation plans
PLACES	Grimy recreation room, Refueling station, The only building on the planet, A “starport” of swept bare rock.

PERIMETER AGENCY

Before the Silence, the Perimeter was a Terran-sponsored organization charged with rooting out use of maltech- technology banned in human space as too dangerous for use or experimentation. Unbraked AIs, gengineered slave species, nanotech replicators, weapons of planetary destruction... the Perimeter hunted down experimenters with a great indifference to planetary laws. Most Perimeter Agencies collapsed during the Silence, but a few managed to hold on to their mission, though modern Perimeter agents often find more work as conventional spies and intelligence operatives.

ENEMIES	Renegade Agency Director, Maltech researcher, Paranoid intelligence chief
FRIENDS	Agent in need of help, Support staffer, “Unjustly” targeted researcher
COMPLICATIONS	The local Agency has gone rogue and now uses maltech, The Agency archives have been compromised, The Agency has been targeted by a maltech-using organization, The Agency’s existence is unknown to the locals
THINGS	Agency maltech research archives, Agency pretech spec-ops gear, File of blackmail on local politicians
PLACES	Interrogation room, Smoky bar, Maltech laboratory, Secret Agency base

PILGRIMAGE SITE

The world is noted for an important spiritual or historical location, and might be the sector headquarters for a widespread religion or political movement. The site attracts wealthy pilgrims from throughout nearby space, and those with the money necessary to manage interstellar travel can be quite generous to the site and its keepers. The locals tend to be fiercely protective of the place and its reputation, and some places may forbid the entrance of those not suitably pious or devout.

ENEMIES	Saboteur devoted to a rival belief, Bitter reformer who resents the current leadership, Swindler conning the pilgrims
FRIENDS	Protector of the holy site, Naive offworlder pilgrim, Outsider wanting to learn the sanctum’s inner secrets
COMPLICATIONS	The site is actually a fake, The site is run by corrupt and venal keepers, A natural disaster threatens the site
THINGS	Ancient relic guarded at the site, Proof of the site’s inauthenticity, Precious offering from a pilgrim
PLACES	Incense-scented sanctum, Teeming crowd of pilgrims, Imposing holy structure

POLICE STATE

The world is a totalitarian police state. Any sign of disloyalty to the planet’s rulers is punished severely, and suspicion riddles society. Some worlds might operate by Soviet-style informers and indoctrination, while more technically sophisticated worlds might rely on omnipresent cameras or braked AI “guardian angels”. Outworlders are apt to be treated as a necessary evil at best, and “disappeared” if they become troublesome.

ENEMIES	Secret police chief, Scapegoating official, Treacherous native informer
FRIENDS	Rebel leader, Offworld agitator, Imprisoned victim, Crime boss
COMPLICATIONS	The natives largely believe in the righteousness of the state, The police state is automated and its “rulers” can’t shut it off, The leaders foment a pogrom against “offworlder spies”.
THINGS	List of police informers, Wealth taken from “enemies of the state”, Dear Leader’s private stash
PLACES	Military parade, Gulag, Gray concrete housing block, Surveillance center

PRECEPTOR ARCHIVE

The Preceptors of the Great Archive were a pre-Silence organization devoted to ensuring the dissemination of human culture, history, and basic technology to frontier worlds that risked losing this information during the human expansion. Most frontier planets had an Archive where natives could learn useful technical skills in addition to human history and art. Those Archives that managed to survive the Silence now strive to send their missionaries of knowledge to new worlds in need of their lore.

ENEMIES	Luddite native, Offworld Merchant who wants the natives kept ignorant, Religious zealot, Corrupted First Speaker who wants to keep a monopoly on learning
FRIENDS	Preceptor Adept missionary, Offworld scholar, Reluctant student, Roving Preceptor Adept
COMPLICATIONS	The local Archive has taken a very religious and mystical attitude toward their teaching, The Archive has maintained some replicable pretech science, The Archive has been corrupted and their teaching is incorrect
THINGS	Lost Archive database, Ancient pretech teaching equipment, Hidden cache of theologically unacceptable tech
PLACES	Archive lecture hall, Experimental laboratory, Student-local riot

PRETECH CULTISTS

The capacities of human science before the Silence vastly outmatch the technology available since the Scream. The jump gates alone were capable of crossing hundreds of light years in a moment, and they were just one example of the results won by blending psychic artifice with pretech science. Some worlds outright worship the artifacts of their ancestors, seeing in them the work of more enlightened and perfect humanity. These cultists may or may not understand the operation or replication of these devices, but they seek and guard them jealously.

ENEMIES	Cult leader, Artifact supplier, Pretech smuggler
FRIENDS	Offworld scientist, Robbed collector, Cult heretic
COMPLICATIONS	The cultists can actually replicate certain forms of pretech, The cultists abhor use of the devices as “presumption on the holy”, The cultists mistake the party’s belongings for pretech
THINGS	Pretech artifacts both functional and broken, Religious-jargon laced pretech replication techniques, Waylaid payment for pretech artifacts
PLACES	Shrine to nonfunctional pretech, Smuggler’s den, Public procession showing a prized artifact

PRIMITIVE ALIENS

The world is populated by a large number of sapient aliens that have yet to develop advanced technology. The human colonists may have a friendly or hostile relationship with the aliens, but a certain intrinsic tension is likely. Small human colonies might have been enslaved or otherwise subjugated.

ENEMIES	Hostile alien chief, Human firebrand, Dangerous local predator, Alien religious zealot
FRIENDS	Colonist leader, Peace-faction alien chief, Planetary frontiersman, Xenoresearcher
COMPLICATIONS	The alien numbers are huge and can overwhelm the humans whenever they so choose, One group is trying to use the other to kill their political opponents, The aliens are incomprehensibly strange, One side commits an atrocity
THINGS	Alien religious icon, Ancient alien-human treaty, Alien technology
PLACES	Alien village, Fortified human settlement, Massacre site

PSIONICS FEAR

The locals are terrified of psychics. Perhaps their history is studded with feral psychics who went on murderous rampages, or perhaps they simply nurse an unreasoning terror of those “mutant freaks”. Psychics demonstrate their powers at risk of their lives.

ENEMIES	Mental purity investigator, Suspicious zealot, Witch-finder
FRIENDS	Hidden psychic, Offworlder psychic trapped here, Offworld educator
COMPLICATIONS	Psychic potential is much more common here, Some tech is mistaken as psitech, Natives believe certain rituals and customs can protect them from psychic powers
THINGS	Hidden psitech cache, Possessions of convicted psychics, Reward for turning in a psychic
PLACES	Inquisitorial chamber, Lynching site, Museum of psychic atrocities

PSIONICS WORSHIP

These natives view psionic powers as a visible gift of god or sign of superiority. If the world has a functional psychic training academy, psychics occupy almost all major positions of power and are considered the natural and proper rulers of the world. If the world lacks training facilities, it is likely a hodgepodge of demented cults, with each one dedicated to a marginally-coherent feral prophet and their psychopathic ravings.

ENEMIES	Psychic inquisitor, Haughty mind-noble, Psychic slaver, Feral prophet
FRIENDS	Offworlder psychic researcher, Native rebel, Offworld employer seeking psychics
COMPLICATIONS	The psychic training is imperfect, and the psychics all show significant mental illness, The psychics have developed a unique discipline, The will of a psychic is law, Psychics in the party are forcibly kidnapped for “enlightening”.
THINGS	Ancient psitech, Valuable psychic research records, Permission for psychic training
PLACES	Psitech-imbued council chamber, Temple to the mind, Sanitarium-prison for feral psychics

PSIONICS ACADEMY

This world is one of the few that have managed to redevelop the basics of psychic training. Without this education, a potential psychic is doomed to either madness or death unless they refrain from using their abilities. Psionic academies are rare enough that offworlders are often sent there to study by wealthy patrons. The secrets of psychic mentorship, the protocols and techniques that allow a psychic to successfully train another, are carefully guarded at these academies. Most are closely affiliated with the planetary government.

ENEMIES	Corrupt psychic instructor, Renegade student, Mad psychic researcher, Resentful townie
FRIENDS	Offworld researcher, Aspiring student, Wealthy tourist
COMPLICATIONS	The academy curriculum kills a significant percentage of students, The faculty use students as research subjects, The students are indoctrinated as sleeper agents, The local natives hate the academy, The academy is part of a religion.
THINGS	Secretly developed psitech, A runaway psychic mentor, Psychic research prize
PLACES	Training grounds, Experimental laboratory, School library, Campus hangout

QUARANTINED WORLD

The world is under a quarantine, and space travel to and from it is strictly forbidden. This may be enforced by massive ground batteries that burn any interlopers from the planet's sky, or it may be that a neighboring world runs a persistent blockade.

ENEMIES	Defense installation commander, Suspicious patrol leader, Crazy asteroid hermit
FRIENDS	Relative of a person trapped on the world, Humanitarian relief official, Treasure hunter
COMPLICATIONS	The natives want to remain isolated, The quarantine is enforced by an ancient alien installation, The world is rife with maltech abominations, The blockade is meant to starve everyone on the barren world.
THINGS	Defense grid key, Bribe for getting someone out, Abandoned alien tech
PLACES	Bridge of a blockading ship, Defense installation control room, Refugee camp

RADIOACTIVE WORLD

Whether due to a legacy of atomic warfare unhindered by nuke snuffers or a simple profusion of radioactive elements, this world glows in the dark. Even heavy vacc suits can filter only so much of the radiation, and most natives suffer a wide variety of cancers, mutations and other illnesses without the protection of advanced medical treatments.

ENEMIES	Bitter mutant, Relic warlord, Desperate would-be escapee
FRIENDS	Reckless prospector, Offworld scavenger, Biogenetic variety seeker
COMPLICATIONS	The radioactivity is steadily growing worse, The planet's medical resources break down, The radioactivity has inexplicable effects on living creatures, The radioactivity is the product of a malfunctioning pretech manufactory.
THINGS	Ancient atomic weaponry, Pretech anti-radioactivity drugs, Untainted water supply
PLACES	Mutant-infested ruins, Scorched glass plain, Wilderness of bizarre native life, Glowing barrens

REGIONAL HEGEMON

This world has the technological sophistication, natural resources, and determined polity necessary to be a regional hegemon for the sector. Nearby worlds are likely either directly subservient to it or tack carefully to avoid its anger. It may even be the capital of a small stellar empire.

ENEMIES	Ambitious general, Colonial official, Contemptuous noble
FRIENDS	Diplomat, Offworld ambassador, Foreign spy
COMPLICATIONS	The hegemon's influence is all that's keeping a murderous war from breaking out on nearby worlds, The hegemon is decaying and losing its control, The government is riddled with spies, The hegemon is genuinely benign
THINGS	Diplomatic carte blanche, Deed to an offworld estate, Foreign aid grant
PLACES	Palace or seat of government, Salon teeming with spies, Protest rally, Military base

RESTRICTIVE LAWS

A myriad of laws, customs, and rules constrain the inhabitants of this world, and even acts that are completely permissible elsewhere are punished severely here. The locals may provide lists of these laws to offworlders, but few non-natives can hope to master all the important intricacies.

ENEMIES	Law enforcement officer, Outraged native, Native lawyer specializing in peeling offworlders, Paid snitch
FRIENDS	Frustrated offworlder, Repressed native, Reforming crusader
COMPLICATIONS	The laws change regularly in patterns only natives understand, The laws forbid some action vital to the party, The laws forbid the simple existence of some party members, The laws are secret to offworlders
THINGS	Complete legal codex, Writ of diplomatic immunity, Fine collection vault contents
PLACES	Courtroom, Mob scene of outraged locals, Legislative chamber, Police station

RIGID CULTURE

The local culture is extremely rigid. Certain forms of behavior and belief are absolutely mandated, and any deviation from these principles is punished, or else society may be strongly stratified by birth with limited prospects for change. Anything which threatens the existing social order is feared and shunned.

ENEMIES	Rigid reactionary, Wary ruler, Regime ideologue, Offended potentate
FRIENDS	Revolutionary agitator, Ambitious peasant, Frustrated merchant
COMPLICATIONS	The cultural patterns are enforced by technological aids, The culture is run by a secret cabal of manipulators, The culture has explicit religious sanction, The culture evolved due to important necessities that have since been forgotten
THINGS	Precious traditional regalia, Peasant tribute, Opulent treasures of the ruling class
PLACES	Time-worn palace, Low-caste slums, Bandit den, Reformist temple

SEAGOING CITIES

Either the world is entirely water or else the land is simply too dangerous for most humans. Human settlement on this world consists of a number of floating cities that follow the currents and the fish.

ENEMIES	Pirate city lord, Mer-human raider chieftain, Hostile landsman noble, Enemy city saboteur
FRIENDS	City navigator, Scout captain, Curious mer-human
COMPLICATIONS	The seas are not water, The fish schools have vanished and the city faces starvation, Terrible storms drive the city into the glacial regions, Suicide ships ram the city's hull
THINGS	Giant pearls with mysterious chemical properties, Buried treasure, Vital repair materials
PLACES	Bridge of the city, Storm-tossed sea, A bridge fashioned of many small boats.

SEALED MENACE

Something on this planet has the potential to create enormous havoc for the inhabitants if it is not kept safely contained by its keepers. Whether a massive seismic fault line suppressed by pretech terraforming technology, a disease that has to be quarantined within hours of discovery, or an ancient alien relic that requires regular upkeep in order to prevent planetary catastrophe, the menace is a constant shadow on the populace.

ENEMIES	Hostile outsider bent on freeing the menace, Misguided fool who thinks he can use it, Reckless researcher who thinks he can fix it
FRIENDS	Keeper of the menace, Student of its nature, Victim of the menace
COMPLICATIONS	The menace would bring great wealth along with destruction, The menace is intelligent, The natives don't all believe in the menace
THINGS	A key to unlock the menace, A precious byproduct of the menace, The secret of the menace's true nature
PLACES	Guarded fortress containing the menace, Monitoring station, Scene of a prior outbreak of the menace

SECRET MASTERS

The world is actually run by a hidden cabal, acting through their catspaws in the visible government. For one reason or another, this group finds it imperative that they not be identified by outsiders, and in some cases even the planet's own government may not realize that they're actually being manipulated by hidden masters.

ENEMIES	An agent of the cabal, Government official who wants no questions asked, Willfully blinded local
FRIENDS	Paranoid conspiracy theorist, Machiavellian gamesman within the cabal, Interstellar investigator
COMPLICATIONS	The secret masters have a benign reason for wanting secrecy, The cabal fights openly amongst itself, The cabal is recruiting new members
THINGS	A dossier of secrets on a government official, A briefcase of unmarked credit notes, The identity of a cabal member
PLACES	Smoke-filled room, Shadowy alleyway, Secret underground bunker

SECTARIANS

The world is torn by violent disagreement between sectarians of a particular faith. Each views the other as a damnable heresy in need of extirpation. Local government may be able to keep open war from breaking out, but the poisonous hatred divides communities. The nature of the faith may be religious, or it may be based on some secular ideology.

ENEMIES	Paranoid believer, Native convinced the party is working for the other side, Absolutist ruler
FRIENDS	Reformist clergy, Local peacekeeping official, Offworld missionary, Exhausted ruler
COMPLICATIONS	The conflict has more than two sides, The sectarians hate each other for multiple reasons, The sectarians must cooperate or else life on this world is imperiled, The sectarians hate outsiders more than they hate each other, The differences in sects are incomprehensible to an outsider
THINGS	Ancient holy book, Incontrovertible proof, Offering to a local holy man
PLACES	Sectarian battlefield, Crusading temple, Philosopher's salon, Bitterly divided village

SEISMIC INSTABILITY

The local land masses are remarkably unstable, and regular earthquakes rack the surface. Local construction is either advanced enough to sway and move with the vibrations or primitive enough that it is easily rebuilt. Severe volcanic activity may be part of the instability.

ENEMIES	Earthquake cultist, Hermit seismologist, Burrowing native life form, Earthquake-inducing saboteur
FRIENDS	Experimental construction firm owner, Adventurous volcanologist, Geothermal prospector
COMPLICATIONS	The earthquakes are caused by malfunctioning pretech terraformers, They're caused by alien technology, They're restrained by alien technology that is being plundered by offworlders, The earthquakes are used to generate enormous amounts of energy.
THINGS	Earthquake generator, Earthquake suppressor, Mineral formed at the core of the world, Earthquake-proof building schematics
PLACES	Volcanic caldera, Village during an earthquake, Mud slide, Earthquake opening superheated steam fissures

THEOCRACY

The planet is ruled by the priesthood of the predominant religion or ideology. The rest of the locals may or may not be terribly pious, but the clergy have the necessary military strength, popular support or control of resources to maintain their rule. Alternative faiths or incompatible ideologies are likely to be both illegal and socially unacceptable.

ENEMIES	Decadent priest-ruler, Zealous inquisitor, Relentless proselytizer, True Believer
FRIENDS	Heretic, Offworld theologian, Atheistic merchant, Desperate commoner
COMPLICATIONS	The theocracy actually works well, The theocracy is decadent and hated by the common folk, The theocracy is divided into mutually hostile sects, The theocracy is led by aliens
THINGS	Precious holy text, Martyr's bones, Secret church records, Ancient church treasures
PLACES	Glorious temple, Austere monastery, Academy for ideological indoctrination, Decadent pleasure-cathedral

TOMB WORLD

Tomb worlds are planets that were once inhabited by humans before the Silence. The sudden collapse of the jump gate network and the inability to bring in the massive food supplies required by the planet resulted in starvation, warfare, and death. Most tomb worlds are naturally hostile to human habitation and could not raise sufficient crops to maintain life. The few hydroponic facilities were usually destroyed in the fighting, and all that is left now are ruins, bones, and silence.

ENEMIES	Demented survivor tribe chieftain, Avaricious scavenger, Automated defense system, Native predator
FRIENDS	Scavenger Fleet captain, Archaeologist, Salvaging historian
COMPLICATIONS	The ruins are full of booby-traps left by the final inhabitants, The world's atmosphere quickly degrades anything in an opened building, A handful of desperate natives survived the Silence, The structures are unstable and collapsing
THINGS	Lost pretech equipment, Psitech caches, Stores of unused munitions, Ancient historical documents
PLACES	Crumbling hive-city, City square carpeted in bones, Ruined hydroponic facility, Cannibal tribe's lair, Dead orbital jump gate

TRADE HUB

This world is a major crossroads for local interstellar trade. It is well-positioned at the nexus of several short-drill trade routes, and has facilities for easy transfer of valuable cargoes and the fueling and repairing of starships. The natives are accustomed to outsiders, and a polyglot mass of people from every nearby world can be found trading here.

ENEMIES	Cheating merchant, Thieving dockworker, Commercial spy, Corrupt customs official
FRIENDS	Rich tourist, Hardscrabble free trader, Merchant prince in need of catspaws, Friendly spaceport urchin
COMPLICATIONS	An outworlder faction schemes to seize the trade hub, Saboteurs seek to blow up a rival's warehouses, Enemies are blockading the trade routes, Pirates lace the hub with spies
THINGS	Voucher for a warehouse's contents, Insider trading information, Case of precious offworld pharmaceuticals, Box of legitimate tax stamps indicating customs dues have been paid.
PLACES	Raucous bazaar, Elegant restaurant, Spaceport teeming with activity, Foggy street lined with warehouses

TYRANNY

The local government is brutal and indifferent to the will of the people. Laws may or may not exist, but the only one that matters is the whim of the rulers on any given day. Their minions swagger through the streets while the common folk live in terror of their appetites. The only people who stay wealthy are friends and servants of the ruling class.

ENEMIES	Debauched autocrat, Sneering bully-boy, Soulless government official, Occupying army officer
FRIENDS	Conspiring rebel, Oppressed merchant, Desperate peasant, Inspiring religious leader
COMPLICATIONS	The tyrant rules with vastly superior technology, The tyrant is a figurehead for a cabal of powerful men and women, The people are resigned to their suffering, The tyrant is hostile to "meddlesome outworlders".
THINGS	Plundered wealth, Beautiful toys of the elite, Regalia of rulership
PLACES	Impoverished village, Protest rally massacre, Decadent palace, Religious hospital for the indigent

UNBRAKED AI

Artificial intelligences are costly and difficult to create, requiring a careful sequence of "growth stages" in order to bring them to sentience before artificial limits on cognition speed and learning development are installed. These "brakes" prevent runaway cognition metastasis, wherein an AI begins to rapidly contemplate certain subjects in increasingly baroque fashion, until they become completely crazed by rational human standards. This world has one such "unbraked AI" on it, probably with a witting or unwitting corps of servants. Unbraked AIs are quite insane, but they learn and reason with a speed impossible for humans, and can demonstrate a truly distressing subtlety at times.

ENEMIES	AI Cultist, Maltech researcher, Government official dependent on the AI
FRIENDS	Perimeter agent, AI researcher, Braked AI
COMPLICATIONS	The AI's presence is unknown to the locals, The locals depend on the AI for some vital service, The AI appears to be harmless, The AI has fixated on the group's ship's computer, The AI wants transport offworld
THINGS	The room-sized AI core itself, Maltech research files, Perfectly tabulated blackmail on government officials, Pretech computer circuitry
PLACES	Municipal computing banks, Cult compound, Repair center, Ancient hardcopy library

WARLORDS

The world is plagued by warlords. Numerous powerful men and women control private armies sufficiently strong to cow whatever local government may exist. On the lands they claim, their word is law. Most spend their time oppressing their own subjects and murderously pillaging those of their neighbors. Most like to wrap themselves in the mantle of ideology, religious fervor, or an ostensibly legitimate right to rule.

ENEMIES	Warlord, Avaricious lieutenant, Expensive assassin, Aspiring minion
FRIENDS	Vengeful commoner, Government military officer, Humanitarian aid official, Village priest
COMPLICATIONS	The warlords are willing to cooperate to fight mutual threats, The warlords favor specific religions or races over others, The warlords are using substantially more sophisticated tech than others, Some of the warlords are better rulers than the government
THINGS	Weapons cache, Buried plunder, A warlord's personal battle harness, Captured merchant shipping
PLACES	Gory battlefield, Burnt-out village, Barbaric warlord palace, Squalid refugee camp

XENOPHILES

The natives of this world are fast friends with a particular alien race. The aliens may have saved the planet at some point in the past, or awed the locals with superior tech or impressive cultural qualities. The aliens might even be the ruling class on the planet.

ENEMIES	Offworld xenophobe, Suspicious alien leader, Xenocultural imperialist
FRIENDS	Benevolent alien, Native malcontent, Gone-native offworlder
COMPLICATIONS	The enthusiasm is due to alien psionics or tech, The enthusiasm is based on a lie, The aliens strongly dislike their "groupies", The aliens feel obliged to rule humanity for its own good, Humans badly misunderstand the aliens
THINGS	Hybrid alien-human tech, Exotic alien crafts, Sophisticated xenolinguistic and xenocultural research data
PLACES	Alien district, Alien-influenced human home, Cultural festival celebrating alien artist

XENOPHOBES

The natives are intensely averse to dealings with outworlders. Whether through cultural revulsion, fear of tech contamination, or a genuine immunodeficiency, the locals shun foreigners from offworld and refuse to have anything to do with them beyond the bare necessities of contact. Trade may or may not exist on this world, but if it does, it is almost certainly conducted by a caste of untouchables and outcasts.

ENEMIES	Revulsed local ruler, Native convinced some wrong was done to him, Cynical demagogue
FRIENDS	Curious native, Exiled former ruler, Local desperately seeking outworlder help
COMPLICATIONS	The natives are symptomless carriers of a contagious and dangerous disease, The natives are exceptionally vulnerable to offworld diseases, The natives require elaborate purification rituals after speaking to an offworlder or touching them, The local ruler has forbidden any mercantile dealings with outworlders
THINGS	Jealously-guarded precious relic, Local product under export ban, Esoteric local technology
PLACES	Sealed treaty port, Public ritual not open to outsiders, Outcaste slum home

ZOMBIES

This menace may not take the form of shambling corpses, but some disease, alien artifact, or crazed local practice produces men and women with habits similar to those of murderous cannibal undead. These outbreaks may be regular elements in local society, either provoked by some malevolent creators or the consequence of some local condition.

ENEMIES	Soulless maltech biotechnology cult, Sinister governmental agent, Crazed zombie cultist
FRIENDS	Survivor of an outbreak, Doctor searching for a cure, Rebel against the secret malefactors
COMPLICATIONS	The zombies retain human intelligence, The zombies can be cured, The process is voluntary among devotees, The condition is infectious
THINGS	Cure for the condition, Alien artifact that causes it, Details of the cult's conversion process
PLACES	House with boarded-up windows, Dead city, Fortified bunker that was overrun from within

CHAPTER EIGHT

FCTIONS

Interstellar merchant combines, tyrannical planetary empires, sinister cults of eugenic perfection... groups such as these all have a role to play in *Stars Without Number*. Such organized, motivated groups are known as *factions*, and this chapter describes ways in which a GM can use them to further events in a sector. Player characters that attain sufficient power and fame might even establish their own factions, and the rules below give ways to handle inter-faction fighting and advancement.

What is a Faction?

A faction is any group that you intend to use as an important actor in the sector. In theory, any organization could qualify as a faction; every planetary government, business, religion, or club could be described with the rules given here. Still, that kind of exhaustive cataloging is neither practical nor profitable. Faction status should be reserved for those organizations you intend to focus on for a game.

It may be necessary to turn an organization into a faction in the course of play. If the PCs suddenly take a deep interest in a eugenic cult they recently faced on the jungle moon of Perihelion, it might be useful for the GM to turn the group into a formal faction, the better to understand how the PCs might injure it and what resources the cult might have to fight back. Or it might be that the PC group's interstellar trading cartel faction tries to topple a world's tyrannical government, thus making it worthwhile to define the tyrant's resources.

Defining a Faction

Factions have six statistics, a homeworld, and one or more tags.

Hit points define a faction's resilience to outside disruption and attack. The higher a faction's hit points, the harder it is to break it up. A faction that loses hit points has lost cohesion somehow, either through the death of leadership, the demoralization of members, or the rise of fractious power blocs inside its structure. A faction needs time to recover from hit point damage. A faction's maximum hit points are based on its Force, Cunning, and Wealth, as given later in the chapter.

Force rating is the faction's general aptitude at applying physical violence, measured on a scale ranging from 1 to 8. A rating of 1 implies an organization with little or no aptitude for physical

coercion, while a rating of 8 might be appropriate for a regional hegemon with a powerful, expansionist military. A high Force rating doesn't necessarily mean that the faction has much in the way of a standing army, but it does mean that the faction can think clearly about the use of force and is accustomed to military reasoning. Governments tend to have high Force ratings to represent police forces and military structures. Terrorist groups, mercenary bands, and other organizations that rely on brute force also tend to have high Force ratings.

Cunning rating reflects the faction's skills at espionage, infiltration, internal security, and covert manipulation of other groups. A rating of 1 implies a completely visible faction with no resources for resisting infiltration, while a rating of 8 implies a faction of Illuminati unknown to all but a handful of paranoid conspiracy-mongers with tendrils of influence reaching to the farthest star in the sector. Eugenics cults, terrorist groups, spy agencies, and some religious groups tend to favor a good Cunning score.

Wealth rating indicates the faction's commercial, scientific, and industrial resources. A Wealth score of 1 means that the faction has little in the way of income or investments, no dedicated manufacturing facilities, and no laboratories or researchers available. A Wealth score of 8 is appropriate for some system-spanning merchant empire or the combine that runs the pretech manufactories of an untouched factory world.

FacCreds are a measure of the faction's general wealth and resources, spent to purchase and maintain assets or carry out faction operations. A FacCred doesn't necessarily represent a certain sum of credits so much as it represents logistics capability, available resources, and managerial focus. A faction on a primitive world may not have a single credit to its name, but its command of a legion of laborers and the food supplies necessary to feed them are a vast store of FacCreds all the same. All the credits in a sector do no good if they can't be effectively translated into a useful asset.

Factions also accumulate *experience points*. They gain these points from accomplishing goals, with the larger goals earning them correspondingly more experience points. Once enough experience is accumulated the faction can spend it to improve a rating. The higher the rating, the more experience is necessary to raise it. It's vastly more difficult to go from Force 7 to 8 than from Force 1 to 2.

The faction's *homeworld* represents the location of its core leadership and support. Factions can always purchase assets and take actions on their homeworld, even if they lack any other assets there. By the same token, an enemy can always launch attacks against the faction on their homeworld if the enemy is able to move in its own assets.

Tags are special traits that relate to the faction's nature or special aptitudes. A cabal of rebel conspirators might have the Secretive tag, which gives a bonus to resisting certain attacks, or the Deep Roots tag, which gives them a bonus to operations on their homeworld. Most factions have one or two tags.

Faction Assets

Aside from the six statistics, factions also possess *assets*. Assets are facilities, contacts, trained units of specialists, or other specific objects, places, or groups of value. A regiment of postech infantry is an asset, as is a pretech manufactory, a master assassin, or an interstellar shipping company. Assets require certain ratings to support. A fleet of capital warships isn't going to be useful to a faction with Force 3 no matter how much wealth the faction has. It just doesn't have the infrastructure and institutional mindset to use such an asset effectively.

Assets have hit points much like factions do. An asset reduced to zero hit points by an attack is destroyed; either physically ruined, hopelessly scattered, or lost to a rival buyer. Asset hit points can be regained with time for repair and reorganization.

Assets have a purchase cost and sometimes a maintenance cost, paid in FacCredits. The first turn that a faction fails to pay the maintenance cost of an asset, it becomes unavailable for use. If the maintenance cost isn't paid the next turn, the asset is lost.

Assets often have an Attack. When an asset is used to strike at another faction, the attack entry is used to determine what rating is attacked and the amount of damage that is done by a successful hit. An asset without an Attack entry can't be used to strike at an enemy faction.

A Counterattack line indicates the damage an asset does to an unsuccessful attacker. If an attacking asset misses its strike against the target, the target's Counterattack entry damage is done. An asset without a Counterattack entry does no damage to a failed attacker.

Assets have a type, such as "Special Forces", "Military Unit", "Facility", "Starship" or the like. This type is mostly relevant when factions wish to upgrade an asset, or some special tag applies only to assets of a certain type.

Assets have a location, usually the planet on which they were purchased. Assets cannot be used against different locations unless they are first transported there, usually by means of a logistical asset.

Most assets also require a particular tech level to purchase. They can be transported to worlds with lower tech levels, but they must be purchased on a planet with a sufficient level of technology.

A faction may own no more assets of a particular type than they have points in the relevant rating. Thus, a faction with Force 3 can own three Force assets. In a pinch, a faction can exceed this total, but each asset over the maximum costs an additional FacCredit in maintenance each turn.

The Faction Turn

Faction actions are divided up by turns. As a rule of thumb, a faction turn happens once per month, or once after each adventure. Turns might happen more or less often depending on the GM's preferred pace of events. Each faction can usually take one action per turn.

At the beginning of each turn, roll a die that's no smaller than the number of factions you have—thus, if you've got six factions in the sector, roll a d6. If you've got nine, roll a d10, and so forth. Whatever number comes up is the faction that acts first; thus, if you roll a 4, the fourth faction on your list acts first. Then the one after it, and the one after that, and so forth, rolling over the top of the list when necessary.

At the beginning of each turn, a faction gains FacCredits equal to half their Wealth rating rounded up plus one-quarter of their total Force and Cunning ratings, rounded down. Any maintenance costs must be paid at the beginning of each turn.

If a faction has no goal at the start of a turn, they may pick a new one. If they wish to abandon a prior goal, they may do so, but the demoralization and confusion costs them that turn's FacCredit income and they may perform no other action that turn.

At the end of each faction turn, the GM should translate the turn's events into a few lines of rumor or news that can be related to the PCs. A successful attack by the Lawyers of the Bright Dawn Society on the Perihelion government's Union Toughs might be reported as "Neohuman rights activists on Perihelion applaud the election of Parminder Smith to the leadership of the government-sponsored Transit Workers Union. Miss Smith is a strong supporter of neohuman research and legal emancipation."

Acting During A Turn

Factions can take several different types of actions, though generally only one action per turn. The list provided consists of the usual actions a faction might find useful; you should feel free to allow variations on the list depending on the particular situation. PC adventures always exist outside of the faction turn economy. If you run an adventure involving the PC group's destruction of the Sorority of the Golden Flame's secret laboratories on a volcanic planetoid, then the faction's asset is simply destroyed, with no chance of resisting.

A faction can only take one type of action per round, but they can perform that action on as many worlds as they wish. A faction that selects the Attack action, for example, can launch attacks on multiple worlds, while one that selects the Use Asset Ability action can use the special abilities of any or all assets they possess.

Faction Actions

The following list of actions includes the most common activities a faction might choose to perform. The GM should feel free to add new action types, or allow alternate choices if a faction wishes to do something that doesn't quite fit the list below. As a general rule, a faction should only be able to do one thing per turn, but should be able to do that same thing with any or all assets.

Attack: Attacking is the chief way by which a faction assaults a rival's assets and organizational structure. A successful attack can damage or destroy an enemy asset, or even damage the leadership and cohesion of an enemy faction.

Attacks can only be launched against known assets. If a rival has stealthed assets on a world, they cannot be targeted for an attack until they've been discovered by a faction's intelligence agents. Attacks can only be launched against assets on the same world as the attacker.

To launch an attack, the attacker selects one or more of their own assets and targets a rival faction with assets on the same world. One at a time, each attacking asset is matched against a defending asset chosen by the defender. Each attacking asset can attack only once per turn, though a defending asset can defend as many times as the defender wishes, assuming it can survive multiple conflicts.

Once matched, the attacker rolls 1d10 and adds the relevant attribute for the asset. For example, a military unit's Attack might add the faction's Force rating to the attack roll, while a cyberninja unit might add the faction's Cunning to the attack roll. The defender then rolls 1d10 and adds the attribute that the attack targets. In the instance of the military unit, this might be an attack against Force, causing the defender to add their Force rating to the roll, while defending against the cyberninjas might require adding the defender's Cunning rating. The Attack line of the attacking asset indicates which attribute to add to the attack roll and which to add to the defense roll.

If the attacker's roll exceeds the defender's roll, the attack is a success. The defending asset suffers damage as given on the Attack line of the attacking asset. If the defender has a Base of Influence on the world, the defender may opt to let the damage bypass the asset and hit the Base of Influence instead, causing damage to it and the faction hit points. If the asset or Base of Influence is reduced to zero hit points, it is lost.

If the attacker's roll is less than the defender's roll, the attack fails. The defending asset can apply whatever damage their Counterattack line indicates to the attacking asset. If the defending asset has no Counterattack line, the attacker suffers no consequences for the failed attack.

A tie on the roll results in both Attack *and* Counterattack succeeding. Both attacker and defender take damage as indicated.

Buy asset: The faction buys one asset on their homeworld or another planet on which they have a Base of Influence. These assets take time to assemble, and can neither attack, defend, nor grant their special benefits until the beginning of the faction's next turn. The faction must have a sufficient rating to buy an asset, and the planet must have a tech level sufficient to support the asset's creation. Only one asset can be purchased by a faction per turn.

Change homeworld: A faction can move to a different homeworld, if they have a Base of Influence on the destination planet. This action takes one turn, plus one more for each hex of distance between the old homeworld and the new. During this time the faction can initiate no actions.

Expand Influence: The faction buys a Base of Influence asset on a planet on which they have at least one other asset. The faction then rolls 1d10+Cunning rating against similar rolls by every other faction on the planet. Any of the others that equal or beat the faction's roll may make a free immediate Attack against the Base of Influence if they wish. Other assets present on the planet may defend against the attack as normal. The Base of Influence cannot be used until the beginning of the faction's next turn.

Refit Asset: Change one asset to any other asset of the same type. If the new asset is of a more expensive type, pay the difference. The asset must be on a planet that allows the purchase of the new asset. Turning a militia squad into elite skirmishers requires a tech level 4 world and governmental permission, for example. A refitted asset is unable to attack or defend until the beginning of the faction's next turn.

Repair Asset/Faction: Heal damage to an asset or faction. For one FacCred, an asset heals points of damage equal to the faction's score in its ruling attribute. More damage can be healed in this single action, but the cost of repair increases by one FacCred for each further amount repaired- two FacCredits for the second amount healed, three FacCredits for the third amount healed, et cetera. If used to heal a faction, the faction regains hit points equal to the rounded average of its highest and lowest attribute ratings. This healing cannot be hurried.

Sell Asset: Gain half the FacCred cost of the asset, rounded down.

Seize Planet: The faction seeks to become the ruling body of a world. The faction must destroy all unstealthed assets on the planet belonging to factions who oppose their attempt before they can successfully take control. If all the assets cannot be destroyed in one turn, the faction must continue the attempt next turn until either successful or all of their own assets on that planet have been destroyed or have left the planet. No other actions can be taken in the meanwhile. Once all resistance has been crushed, the attacker must maintain at least one unstealthed asset on the world for three turns. If successful, they gain the Planetary Government tag for the world.

Use Asset Ability: Use the special abilities of one or more assets, such as the transport ability of logistics assets, or the intelligence-gathering abilities of spy assets.

Faction Goals

Factions usually have motivations and goals beyond simple existence. To grow, a faction needs to accomplish goals that are in line with their leadership's purposes. Successful achievement of these goals helps the faction grow in strength and influence.

A faction can pursue one goal at a time. Once a goal is successfully attained, the faction may select a new one at the beginning of their next turn or delay until a good opportunity arises. If a faction chooses to abandon a goal, the demoralizing effect of it and the waste of preparations costs them that turn's FacCred income, and they cannot perform any other action that turn.

A faction that successfully accomplishes a goal gains experience points equal to the goal's difficulty. This experience may be saved, or spent at the beginning of any turn to increase the Force, Cunning, or Wealth ratings of a faction. Optionally, the GM might allow a faction to buy a new tag if their accomplishments justify it.

It's the GM's choice as to what might constitute an appropriate goal for a faction, but below are some potential goals and the difficulties attached to each.

Military Conquest: Destroy a number of Force assets of rival factions equal to your faction's Force rating. Difficulty is 1/2 number of assets destroyed, rounded up.

Commercial Expansion: Destroy a number of Wealth assets of rival factions equal to your faction's Wealth rating. Difficulty is 1/2 number of assets destroyed, rounded up.

Intelligence Coup: Destroy a number of Cunning assets of rival factions equal to your faction's Cunning rating. Difficulty is 1/2 number of assets destroyed, rounded up.

Planetary Seizure: Take control of a planet, becoming the legitimate planetary government. Difficulty equal to half the average of the current ruling faction's Force, Cunning, and Wealth ratings. If the planet somehow lacks any opposing faction to resist the seizure, it counts as Difficulty 1.

Expand Influence: Plant a Base of Influence on a new planet. Difficulty 1, +1 if the attempt is contested by a rival faction.

Blood the Enemy: Inflict a number of hit points of damage on an enemy faction equal to your faction's total Force, Cunning, and Wealth ratings. Difficulty 2.

Peaceable Kingdom: Launch no attacks on rival factions for four turns. The faction may still defend. Difficulty 1.

Destroy the Foe: Destroy a rival faction. Difficulty equal to 1 plus the average of the faction's Force, Cunning, and Wealth ratings.

Inside Enemy Territory: Plant a number of stealthed assets on worlds with other planetary governments equal to your Cunning score. Units that are already stealthed on worlds when this goal is adopted don't count. Difficulty 2.

Invincible Valor: Destroy a Force asset with a minimum purchase rating higher than your faction's Force rating. Thus, if your Force is 3, you need to destroy a unit that requires Force 4 or higher to purchase. Difficulty 2.

Wealth of Worlds: Spend FacCreds equal to four times your faction's Wealth rating on bribes and influence. This money is effectively lost, but the goal is then considered accomplished. The faction's Wealth rating must increase before this goal can be selected again. Difficulty 2.

Raising Faction Attributes and Hit Points

Faction attributes can be raised at the beginning of each turn, if enough experience points are available. The cost of raising a faction attribute rises as the rating rises

The maximum hit points of a faction are equal to 4 plus the experience point cost of the highest attributes in Force, Cunning, and Wealth they have attained. For example, a faction with Force 3, Cunning 2, and Wealth 2 has a maximum hit point total of $4 + 4 + 2 + 2 = 12$ hit points. A brand-new faction with Force 1, Cunning 2, and Wealth 1 has a maximum hit point total of $4 + 1 + 2 + 1 = 8$ hit points.

Experience points spent by factions differ from those gained by PCs in that they are lost when they increase an attribute. Once a faction spends 4 XP to raise Force from 2 to 3, for example, those points are lost, and 6 more must be spent to raise Force from 3 to 4.

RATING	XP COST	HIT POINTS
1	-	1
2	2	2
3	4	4
4	6	6
5	9	9
6	12	12
7	16	16
8	20	20

Buying Faction Assets

Assets can be normally purchased on any world that has a Base of Influence and sufficient tech level to support their creation. In a few cases, however, acquiring an asset requires more than just FacCredits and a serviceable planet.

Starship-type assets cannot be purchased on a world with less than several hundred thousand inhabitants. Planets with smaller populations may have the tech, but they lack the industrial infrastructure necessary to manufacture spike drives.

Some assets require the permission of a planetary government in order to purchase them or move them onto the planet. This is not a formality; the standing government's forces can physically disrupt any attempt to recruit the asset on their world, or shoot it down in its vulnerable entry phase. Whether or not this permission will be extended will usually depend on the faction's relationship with a planet's government, though bribes of 1d4 FacCredits can occasionally suffice. Under no conditions will a government willingly permit the recruitment or entry of assets powerful enough to overthrow them.

Planetary governments cannot prevent the landing of assets without the permission-needed quality. Such assets are too unthreatening and nondescript to alert them until after they've already been formed or have landed. Of course, there is nothing stopping them from attacking these assets either directly or indirectly should they feel threatened.

Only one asset can be purchased per turn by a given faction, and assembling it takes time. The asset can neither attack, defend, nor give any special benefits until the beginning of the buyer's next turn.

Using Faction Assets

As its action for the turn, a faction can choose to use the special actions of one or more assets. They can trigger these special abilities in any order, but each form of asset must be used all at the same time- you cannot trigger Heavy Drop Assets to move a Monopoly asset onto a world, activate the Monopoly ability to siphon cash, and then use another Heavy Drop Asset to move the Monopoly

back offworld. All Heavy Drop Assets must be finished before Monopolies can be triggered, and so forth.

Unless specified otherwise, all asset targets must be on the same world with the acting assets.

In some cases, assets are called to make a test against another faction, such as a Cunning vs. Wealth test. For these tests, the acting asset's faction rolls 1d10 and adds their score in the acting attribute, while the target faction rolls 1d10 and adds their score in the defending attribute. If the actor rolls higher than the defender, the action is successful. Certain tags may grant a faction extra dice for these rolls, in which case the highest d10 out of those rolled is used. These tests do not count as attacks, and no damage or counterattacks are triggered.

Homeworlds and Bases of Influence

Bases of Influence are special assets, and use certain special rules. A faction cannot buy assets on a world without a Base of Influence, though it can move assets purchased elsewhere on-planet.

First, a faction can only ever have one Base of Influence on a world at a time. Bases of Influence cannot be moved once in place. Bases of Influence cannot be purchased with a Buy Asset action. They can only be put in place with an Expand Influence action. Bases of Influence have a sale value of zero FacCredits.

The cost of a Base of Influence is equal to its maximum hit points, which can be up to the owning faction's maximum hit points. Bases of Influence do not count against a faction's maximum assets.

Damage done to a Base of Influence is also done directly to a faction's hit points. If a Base of Influence is brought below zero hit points, the overflow damage is not counted against the owning faction's hit points.

Every faction has a homeworld. A homeworld is always automatically equipped with a Base of Influence with maximum hit points. If a faction moves its homeworld to a planet that already has a Base of Influence, the existing base is automatically lost.

FORCE ASSETS	HP	COST	TL	TYPE	ATTACK	COUNTERATTACK	NOTE
Force 1							
Security Personnel	3	2	0	Military Unit	Force vs. Force, 1d3+1 damage	1d4 damage	-
Hitmen	1	2	0	Special Forces	Force vs. Cunning, 1d6 damage	None	-
Militia Unit	4	4	3	Military Unit	Force vs. Force, 1d6 damage	1d4+1 damage	P
Base of Influence	*	*	0	Special	None	None	S
Force 2							
Heavy Drop Assets	6	4	4	Facility	None	None	A
Elite Skirmishers	5	5	4	Military Unit	Force vs. Force, 2d4 damage	1d4+1 damage	P
Hardened Personnel	4	4	3	Special Forces	None	1d4+1 damage	-
Guerilla Populace	6	4	0	Military Unit	Force vs. Cunning, 1d4+1 damage	None	-
Force 3							
Zealots	4	6	0	Special Forces	Force vs Force, 2d6 damage	2d6 damage	S
Cunning Trap	2	5	0	Tactic	None	1d6+3 damage	-
Counterintel Unit	4	6	4	Special Forces	Cunning vs Cunning, 1d4+1 damage	1d6 damage	-
Force 4							
Beachhead Landers	10	10	4	Facility	None	None	A
Extended Theater	10	10	4	Facility	None	None	A
Strike Fleet	8	12	4	Starship	Force vs. Force, 2d6 damage	1d8 damage	A
Postech Infantry	12	8	4	Military Unit	Force vs. Force, 1d8 damage	1d8 damage	P
Force 5							
Blockade Fleet	8	10	4	Starship	Force vs. Wealth, 1d6 damage *	None	S
Pretech Logistics	6	14	0	Facility	None	None	A
Psychic Assassins	4	12	4	Special Forces	Cunning vs. Cunning, 2d6+2 damage	None	S
Force 6							
Pretech Infantry	16	20	5	Military Unit	Force vs. Force, 2d8 damage	2d8+2 damage	P
Planetary Defenses	20	18	4	Facility	None	2d6+6 damage *	S
Gravtank Formation	14	25	5	Military Unit	Force vs. Force, 2d10+4 damage	1d10 damage	P
Force 7							
Deep Strike Landers	10	25	5	Facility	None	None	A
Integral Protocols	10	20	5	Facility	None	2d8+2 damage *	S
Space Marines	16	30	5	Military Unit	Force vs. Force 2d8+2 damage	2d8 damage	A
Force 8							
Capital Fleet	30	40	5	Spaceship	Force vs. Force, 3d10+4 damage	3d8 damage	A, S
A “P” special code indicates a need for planetary governmental permission to raise or transport in the asset. “A” means that the asset can perform a special action, and “S” indicates that the asset has a special feature or cost.							

Base of Influence assets are special, and are required for purchasing or upgrading units on a particular world. Any damage done to a Base of Influence is also done to a faction's hit points. The cost of a Base of Influence equals its maximum hit points, which can be any number up to the total maximum hit points of its owning faction. A faction's bases of influence don't count against their maximum assets. A Base of Influence can only be purchased with the “Expand Influence” action, and not with a normal “Buy Asset” action.

Beachhead Landers are a collection of short-range, high-capacity spike drive ships capable of moving large numbers of troops. As an action, the asset may move any number of assets on the planet-

including itself- to any world within one hex at a cost of one FacCred per asset moved.

Blockade Fleets include a ragtag lot of corsairs, pirates, privateers, and other deniable assets. When they successfully hit an enemy faction asset, they steal 1d4 FacCredits from the target faction as well. This theft can occur to a faction only once per turn, no matter how many blockade fleets attack. As an action, this asset may also move itself to a world within one hex.

Capital Fleets are the pride of an empire, a collection of massive pretech warships without peer in most sectors. Capital fleets are expensive to keep flying, and cost an additional 2 FacCredits of

maintenance each turn. As an action, they may move to any world within three hexes of their current location. Planetary government permission is required to raise a capital fleet, but not to move one into a system.

Counterintel Units specialize in code breaking, internal security, and monitoring duties. They can crack open enemy plots long before they have time to come to fruition.

Cunning Traps involve all the myriad stratagems of war, from induced landslides to spreading local diseases.

Deep Strike Landers are advanced pretech transport ships capable of moving an asset long distances. As an action, any one non-Starship asset- including itself- can be moved between any two worlds within three hexes of the deep strike landers, at a cost of 2 FacCreds.

Elite Skirmishers are lightly-equipped troops trained for guerilla warfare and quick raids.

Extended Theater facilities allow for transporting assets long distances. As an action, any one non-Starship asset- including itself- can be moved between any two worlds within two hexes of the extended theater, at a cost of 1 FacCred.

Gravtank Formations are composed of advanced pretech gravtank units that are capable of covering almost any terrain and cracking the toughest defensive positions.

Guerilla Populace assets reflect popular support among the locals and a cadre of men and women willing to fight as partisans.

Hardened Personnel assets consist of employees and support staff of the faction that have been trained in defensive fighting and equipped with supply caches and hardened fallback positions.

Heavy Drop Assets allow for the transport of resources from one world to another. As an action, any one non-Starship asset- including this one- may be moved to any world within one hex for one FacCred.

Hitmen are crudely-equipped thugs and assassins with minimal training that have been aimed at a rival faction's leadership.

Integral Protocols are a complex web of braked-AI supported sensors and redundant security checks used to defeat attempts

to infiltrate an area. They can defend only against attacks versus Cunning, but they add an additional die to the defender's roll.

Militia Units are groups of lightly-equipped irregular troops with rudimentary military training but no heavy support.

Planetary Defenses are massive mag cannons and seeker missile arrays designed to defend against starship bombardments. Planetary Defenses can only defend against attacks by Starship-type assets.

Postech Infantry are the backbone of most planetary armies. These well-trained soldiers are usually equipped with mag weaponry and combat field uniforms, and have heavy support units attached.

Pretech Infantry are the cream of the stellar ground forces, elite troops kitted out in the best pretech weaponry and armor available, with sophisticated heavy support weaponry integral to the unit.

Pretech Logistics assets represent caches, smugglers, or internal research and salvage programs. As an action, a pretech logistics asset allows the owner to buy one Force asset on that world that requires up to tech level 5 to purchase. This asset costs half again as many FacCreds as usual, rounded up. Only one asset can be purchased per turn.

Psychic Assassins are combat-trained psychics equipped with advanced pretech stealth gear and psitech weaponry. Psychic assassins automatically start Stealthed when purchased.

Security Personnel are standard civilian guards or policemen, usually equipped with nonlethal weaponry or personal sidearms.

Space Marines are heavily-armored specialist troops trained for ship boarding actions and opposed landings. As an action, they can move to any world within one hex of their current location, whether or not the planetary government permits it.

Strike Fleets are composed of frigate or cruiser-class vessels equipped with space-to-ground weaponry and sophisticated defenses against light planetary weaponry. As an action, they can move to any world within one hex of their current location.

Zealots are members of the faction so utterly dedicated that they are willing to commit suicide attacks. Zealots take 1d4 damage every time they launch a successful attack or perform a counterattack.

CUNNING ASSETS	HP	COST	TL	TYPE	ATTACK	COUNTERATTACK	NOTE
Cunning 1							
Smugglers	4	2	4	Starship	Cunning vs. Wealth, 1d4 damage	None	A
Informers	3	2	0	Special Forces	Cunning vs. Cunning, special	None	A, S
False Front	2	1	0	Logistics Facility	None	None	S
Base of Influence	*	*	0	Special	None	None	S
Cunning 2							
Lobbyists	4	4	0	Special Forces	Cunning vs. Cunning, special	None	S
Saboteurs	6	5	0	Special Forces	Cunning vs. Cunning, 2d4 damage	None	S
Blackmail	4	4	0	Tactic	Cunning vs. Cunning, 1d4+1 damage	None	S
Seductress	4	4	0	Special Forces	Cunning vs. Cunning, special	None	A, S
Cunning 3							
Cyberninjas	4	6	4	Special Forces	Cunning vs. Cunning, 2d6 damage	None	-
Stealth	-	3	0	Tactic	None	None	S
Covert Shipping	4	8	4	Logistics Facility	None	None	A, S
Cunning 4							
Party Machine	10	10	0	Logistics Facility	Cunning vs. Cunning, 2d6 damage	1d6 damage	S
Vanguard Cadres	12	8	3	Military Unit	Cunning vs. Cunning, 1d6 damage	1d6 damage	-
Tripwire Cells	8	12	4	Special Forces	None	1d4 damage	A, S
Seditionists	8	12	0	Special Forces	None	None	A
Cunning 5							
Organization Moles	8	10	0	Tactic	Cunning vs. Cunning, 2d6 damage	None	S
Cracked Comms	6	14	0	Tactic	None	Special	S
Boltholes	6	12	4	Logistics Facility	None	2d6 damage	S
Cunning 6							
Transport Lockdown	10	20	4	Tactic	Cunning vs. Cunning, special	None	S
Covert Transit Net	15	18	4	Logistics Facility	None	None	A
Demagogue	10	20	0	Special Forces	Cunning vs. Cunning, 2d8 damage	1d8 damage	-
Cunning 7							
Popular Movement	16	25	4	Tactic	Cunning vs. Cunning, 2d6 damage	1d6 damage	S
Book of Secrets	10	20	4	Tactic	None	2d8 damage	S
Treachery	5	10	0	Tactic	Cunning vs. Cunning, Special	None	S
Cunning 8							
Panopticon Matrix	20	30	5	Logistics Facility	None	1d6 damage.	S
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Blackmail can be used to selectively degrade the effectiveness of an enemy asset. Any attempt to attack or defend against Blackmail loses any bonus dice earned by tags.

Boltholes are equipped with a number of postech innovations to make cleaning them out a costly and dangerous pursuit. If a faction Special Forces or Military Unit asset on the same planet as the Boltholes suffers damage sufficient to destroy it, it is instead set at 0 HP and rendered untouchable and unusable until it is repaired to full strength. If the Boltholes are destroyed before this happens, the asset is destroyed with them.

Book of Secrets assets represent exhaustively catalogued psychometric records on important and influential local figures, allowing uncanny accuracy in predicting their actions. Once per turn, a Book of Secrets allows the faction to reroll one die for an action taken on that world or force an enemy faction to reroll one

die. This reroll can only be forced once per turn, no matter how many Books of Secrets are owned.

Covert Shipping allows for the quiet transportation of a unit from one world to another. Any one Special Forces unit can be moved between any worlds within three hexes of the Covert Shipping at the cost of one FacCred.

Covert Transit Net facilities web an area of space with a network of smugglers and gray-market freighter captains. As an action, any Special Forces assets can be moved between any worlds within three hexes of the Covert Transit Net.

Cracked Comms indicate a cryptographic asset for the interception and deciphering of enemy communications. Friendly fire can be induced with the right interference. If the Cracked Comms succeeds in defending against an attack, it can immediately cause the attacking asset to attack itself for normal damage and counterattack consequences.

Cyberninjas are outfitted with the latest in personal stealth cyberware, all designed to avoid all but the most careful scans.

Demagogues are popular leaders of a particular faith or ideology that can be relied upon to point their followers in the direction of maximum utility for the faction.

False Front resources allow a faction to preserve more valuable resources. If another asset on the planet suffers enough damage to destroy it, the faction can sacrifice the false front instead to nullify the killing blow.

Informers lace a planet's underworld, watchful for intruders. They can choose to Attack any faction, and need not specify a particular asset to target. On a successful Cunning vs. Cunning attack, all Stealthed assets on the planet belonging to that faction are revealed. Informers can target a faction even if none of their assets are visible on a world; at worst, they simply learn that there are no stealthed assets there.

Lobbyists can be used to block the governmental permission that is sometimes required to buy an asset or transport it into a system. When a rival faction gains permission to do so, the Lobbyists can make an immediate Cunning vs. Cunning test against the faction; if successful, the permission is withdrawn and cannot be attempted again until the next turn.

Organization Moles can subvert and confuse enemy assets, striking to damage their cohesion.

Panopticon Matrix facilities weave braked-AI intelligence analysts into a web of observation capable of detecting the slightest evidence of intruders on a world. Every rival Stealthed asset on the planet must succeed in a Cunning vs. Cunning test at the beginning of every turn or lose their Stealth. The owner also gains an additional die on all Cunning attacks and defenses on that planet.

Party Machines are political blocks that control particular cities or regions- blocks that are firmly in control of the faction. Each turn, a Party Machine provides 1 FacCred to its owning faction.

Popular Movements represent a planet-wide surge of enthusiasm for a cause controlled by the faction. This support pervades all levels of government, and the government always grants any asset purchase or movement requests made by the faction.

Saboteurs are trained in launching strikes against crucial enemy operations. An asset attacked by saboteurs cannot use any Action ability until the start of the attacking faction's next turn. This lock applies whether or not the saboteurs' attack was successful.

Seditionists baffle and confuse their targets, sapping their will to obey. For a cost of 1d4 FacCredits, the Seditionists can attach themselves to an enemy asset. Until they attach to a different asset or no longer share the same planet, the affected asset cannot perform an attack action.

Seductresses and their male equivalents subvert the leadership of enemy assets, revealing hidden plans. As an action, a Seductress can travel to any world within one hex. As an attack, a Seductress does no damage, but an asset that has been successfully attacked immediately reveals any other Stealthed assets on the planet. Only Special Forces units can attack a Seductress.

Smugglers are skilled in extracting personnel. For one FacCred, the smugglers can transport itself or any one Special Forces unit to a planet up to two hexes away.

Stealth is not an asset, per se, but a special quality that can be purchased for another Special Forces asset on the planet. An asset that has been Stealthed cannot be detected or attacked by other factions. If the unit normally requires the permission of a planetary government to be moved onto a planet, that permission may be foregone. An asset loses its Stealth if it is used to attack or defend.

Transport Lockdown techniques involve selective pressure on local routing and shipping companies. On a successful Cunning vs. Cunning attack against a rival faction, the rival faction cannot transport assets onto that planet without spending 1d4 FacCredits and waiting one turn.

Treachery can attack an enemy asset. On a successful attack, the Treachery asset is lost, 5 FacCredits are gained, and the targeted asset switches sides to join the traitor's faction, even if the faction does not otherwise have the attributes necessary to purchase it.

Tripwire Cells of observers are intended to alert to the arrival of stealthed units. Whenever a stealthed asset lands or is purchased on a planet with tripwire cells, the Cells make an immediate Cunning vs. Cunning attack against the owning faction. If successful, the asset loses its stealth.

Vanguard Cadres are those followers of the movement inspired sufficiently to take up arms and fight on behalf of their leadership.

WEALTH ASSETS	HP	COST	TL	TYPE	ATTACK	COUNTERATTACK	NOTE
Wealth 1							
Franchise	3	2	2	Facility	Wealth vs. Wealth, 1d4 damage	1d4-1 damage	S
Harvesters	4	2	0	Facility	None	1d4	A
Local Investments	2	1	2	Facility	Wealth vs. Wealth, 1d4-1 damage	None	S
Base of Influence	*	*	0	Special	None	None	S
Wealth 2							
Freighter Contract	4	5	4	Starship	Wealth vs. Wealth, 1d4 damage	None	A
Lawyers	4	6	0	Special Forces	Cunning vs. Wealth, 2d4 damage	1d6 damage	S
Union Toughs	6	4	0	Military Unit	Wealth vs. Force, 1d4+1 damage	1d4 damage	
Surveyors	4	4	4	Special Forces	None	1d4 damage	A, S
Wealth 3							
Postech Industry	4	8	4	Facility	None	1d4 damage	A
Laboratory	4	6	0	Facility	None	None	S
Mercenaries	6	8	4	Military Unit	Wealth vs. Force, 2d4+2 damage	1d6 damage	A, S, P
Wealth 4							
Shipping Combine	10	10	4	Facility	None	1d6 damage	A
Monopoly	12	8	3	Facility	Wealth vs. Wealth, 1d6 damage	1d6 damage	S
Medical Center	8	12	4	Facility	None	None	S
Bank	8	12	3	Facility	None	None	S
Wealth 5							
Marketers	8	10	0	Tactic	Cunning vs. Wealth, 1d6 damage	None	A
Pretech Researchers	6	14	4	Special Forces	None	None	S
Blockade Runners	6	12	4	Starship	None	2d4 damage	A
Wealth 6							
Venture Capital	10	15	4	Facility	Wealth vs. Wealth, 2d6	1d6 damage	A
R&D Department	15	18	4	Facility	None	None	S
Commodities Broker	10	20	0	Special Forces	Wealth vs. Wealth, 2d8 damage	1d8 damage	A
Wealth 7							
Pretech Manufactory	16	25	5	Facility	None	None	S
Hostile Takeover	10	20	4	Tactic	Wealth vs. Wealth, 2d10 damage	2d8 damage	S
Transit Web	5	15	5	Facility	Cunning vs. Cunning, Special	None	S
Wealth 8							
Scavenger Fleet	20	30	5	Starship	Wealth vs. Wealth, 2d10+4 damage	2d10 damage.	
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Bank assets allow for the protection of wealth. Once per turn, the faction can ignore one cost or FacCred loss imposed by another faction, regardless of where it is levied. Multiple banks allow multiple losses to be ignored.

Base of Influence assets are special, and follow the rules noted above for their use and purchase.

Blockade Runners are starship captains that excel at transporting goods through unfriendly lines. As an action, a blockade runner can transfer itself or any one Military Unit or Special Forces to a world within three hexes for a cost of two FacCredits. Blockade

Runners can even move units that would otherwise require planetary government permission to be imported into a world.

Commodities Brokers can substantially lessen the cost of large-scale investments by timing materials purchases to coincide with gluts in the market. As an action, the owner of a commodities broker can roll 1d8; that many FacCredits are subtracted from the cost of their next asset purchase, down to a minimum of half normal price, rounded down.

Franchise assets reflect a deniable connection with a local licensee for the faction's goods and services. When a Franchise successfully attacks a enemy asset, the enemy faction loses one FacCred (if

available), which is gained by the Franchise's owner. This loss can happen only once a turn, no matter how many Franchises attack.

Freighter Contract assets grant special links with heavy shipping spacers. As an action, the faction may move any one non-Force asset- including this one- to any world within two hexes at a cost of one FacCred.

Harvesters gather the natural resources of a world, whether ore, biologicals, or other unprocessed natural goods. As an action, the Harvesters' owning faction may roll 1d6. On 4+, one FacCred is gained.

Hostile Takeover assets allow a faction to seize control of damaged and poorly-controlled assets. If a Hostile Takeover does enough damage to destroy a faction, the target is instead reduced to 1 hit point and acquired by the Hostile Takeover's owning faction.

Laboratory assets allow a world to make hesitant progress in tech. The presence of a Laboratory allows assets to be purchased on that world as if it had tech level 4, at +2 FacCredits cost.

Lawyers as universal, whether sophists in immaculate suits or charismatic tribal skalds. Lawyers have the ability to tie an enemy up in the knots of their own rules, damaging assets with confusion and red tape. Lawyers cannot attack or counterattack Force assets.

Local Investments give the faction substantial influence over the commerce on a world. Any other faction that tries to buy an asset on that planet must pay one extra FacCred. This money is not given to the investments' owner, but is lost. This penalty is only applied once, no matter how many Local Investments are present

Marketers can be deployed to confuse enemy factions into untimely investments and paralyze them with incompatible hardware and software. As an action, the marketers may test Cunning vs. Wealth against a rival faction's asset. If successful, the target faction must immediately pay half the asset's purchase cost, rounded down, or have it become disabled and useless until they do pay.

Medical Center assets allow for the salvage and repair of damaged assets. Once between turns, if a Special Forces or Military Unit asset on the world is destroyed, the faction may immediately pay half its purchase cost to restore it with one hit point. Any Repair Asset action taken on that world costs one less FacCred for Special Forces and Military Units.

Mercenaries are groups of well-equipped, highly-trained soldiers willing to serve the highest bidder. Mercenaries have a maintenance cost of one FacCred per turn. As an action, Mercenaries can move to any world within one hex of their current location. To purchase or move a Mercenary asset to a planet requires government permission.

Monopoly assets involve an open or tacit stranglehold on certain vital businesses or resources on a world. As an action, owners of a monopoly may force one other faction with unstealthed assets on that world to pay them one FacCred. If the target faction hasn't got the money, they lose one asset of their choice on the world.

Postech Industry produces a wide range of postech products out of local resources. As an action, the owning faction can roll 1d6 for a Postech Industry asset. On a 1, one FacCred is lost, on a 2, no profit is gained, on a 3-5 one FacCred is earned, and a 6 returns two FacCredits. If money is lost and no resources are available to pay it, the Postech Industry is destroyed.

Pretech Manufactories are rare, precious examples of functioning pretech industrial facilities, retrofitted to work without the benefit of specialized psychic disciplines. As an action, the owning faction can roll 1d8 for a Pretech Manufactory, and gain half that many FacCredits, rounded up.

Pretech Researchers are a highly versatile team of research and design specialists capable of bringing the most backward planet up to pretech self-sufficiency... as long as they're adequately funded. Any world with Pretech Researchers on it is treated as tech level 5 for the purpose of buying Cunning and Wealth assets. Pretech researchers have a maintenance cost of 1 FacCred per turn.

R&D Departments allow the smooth extension of wealth-creation and industrial principles to the farthest reaches of the faction's operations. A faction with an R&D department may treat all planets as having tech level 4 for purposes of buying Wealth assets.

Scavenger Fleets can, very rarely, be persuaded to throw in with particular factions. These rag-tag armadas bring enormous technical and mercantile resources to their patrons, along with a facility with heavy guns. As an action, a Scavenger Fleet can be moved to any world within three hexes. Scavenger fleets cost 2 FacCredits a turn in maintenance.

Shipping Combine assets allow the transport of large amounts of equipment and personnel between worlds. As an action, the combine may move any number of non-Force assets- including itself- to any world within two hexes at a cost of one FacCred per asset.

Surveyors explore potential resource and investment options on worlds. The presence of a Surveyor crew allows one additional die to be rolled on Expand Influence actions. As an action, a surveyor crew can be moved to any world within two hexes.

Transit Web facilities allow almost effortless relocation of all assets. For one FacCred, any number of non-starship Cunning or Wealth assets may be moved between any two worlds within three hexes of the Transit Web. This may be done freely on the owner's turn so long as the fee can be paid and doesn't require the use of an action.

Union Toughs don't much like scabs and management, and they're willing to take the faction's word on which people are which. They're lightly armed and poorly trained, but they can often infiltrate to perform sabotage when necessary.

Venture Capital grows assets out of seemingly nowhere, harvesting the best of entrepreneurship for the faction's benefit. As an action, venture capital can be tapped. 1d8 is rolled; on a 1, the asset is destroyed, while on a 2-4 one FacCred is gained, 5-7 yields two FacCredits and 8 grants three FacCredits.

Faction Tags

Most factions have some unique quality about them, some trait that distinguishes them from other factions of similar resources. Whether a particularly fanatical band of ideological crusaders or an ancient order of pacifistic scientists, faction tags allow a GM to give a group a few special tricks of their own.

A faction should generally be given one tag, or two at the most for particularly versatile organizations. The exception is the “Planetary Government” tag, which can be acquired- and lost- multiple times to reflect the faction’s seizure of new worlds. Factions tags do not normally change without some drastic and organization-shaping event.

Colonists

This faction is a fresh colony on an otherwise largely untouched planet. It is this brave band of pioneers that will tame the world’s wild forces and bring forth a better life for those who come after.

EFFECT	This faction has all the benefits of the Planetary Government tag for its homeworld, as no other government exists on a fresh colony. The faction’s homeworld is also treated as if it had at least tech level 4. Colonies with fewer than 100,000 citizens lack the necessary industrial infrastructure to build Spaceship-type assets.
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Deep Rooted

This faction has been part of a world’s life for time out of mind. Most natives can hardly imagine the world without this faction’s presence, and the traditional prerogatives and dignities of the group are instinctively respected.

EFFECT	This faction can roll one additional d10 when defending against attacks on assets on their homeworld. If the faction ever changes homeworlds, this tag is lost.
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Eugenics Cult

The forbidden maltech secrets of advanced human genetic manipulation are known to this faction, and they use them with gusto. Slave-engineered humanoids and “deathless” leadership are just two of the more common alterations these unstable, dangerous scientists undertake.

EFFECT	Eugenics Cultists can buy the Gengineered Slaves asset; it’s an asset requiring Force 1 with the statistics of 6 HP, 2 FacCred cost, tech level 4 required, with an Attack of Force vs. Force/1d6 damage and a Counterattack of 1d4 damage. Once per turn, the Eugenics Cult can roll an extra d10 on an attack or defense by a Gengineered Slaves asset.
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Exchange Consulate

This faction is either led through an Exchange Consulate or has close ties with that pacifistic society of bankers and diplomats. The sophisticated economic services provided by a Consulate help to protect the faction’s financial resources.

EFFECT	When the faction successfully completes a “Peaceable Kingdom” Goal, they may roll 1d6; on a 4+, they gain a bonus experience point. Once per turn, the faction may roll an extra d10 when defending against a Wealth attack.
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Fanatical

The members of this faction just don’t know when to quit. No matter how overmatched, the members will keep fighting to the bitter end- and occasionally past it.

EFFECT	The faction always rerolls any dice that come up as 1. This zealousness leaves them open at times, however; they always lose ties during attacks.
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Imperialists

This faction nurses wild dreams of controlling the sector, whether out of an impulse to bring their local culture and technology to less fortunate worlds or simple lust for dominion. They excel at defeating planetary defenses and standing armies.

EFFECT	This faction may roll an extra d10 for attacks made as part of a Seize Planet action.
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Machiavellian

This faction’s meat and drink is intrigue, its members delighting every opportunity to scheme and counterplot. It may be a secret cabal of hidden masters or the decadent court of a fallen stellar empire, but its membership has forgotten more of treachery than most others ever learn.

EFFECT	Once per turn, this faction can roll an additional d10 when making a Cunning attack.
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Mercenary Group

The faction sells its services to the highest bidder, and is an extremely mobile organization. Vast amounts of men and material can be moved interstellar distances in just a few months.

EFFECT	All faction assets gain the following special ability: As an action, the asset may move itself to any world within one hex.
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Perimeter Agency

This faction is or is closely tied to an Agency of the enigmatic Perimeter organization. Originally organized by the Terran Mandate to detect and contain maltech outbreaks until Mandate fleet resources could be dispatched, the Perimeter retains numerous ancient override codes for pretech security protocols.

EFFECT	Once per turn, the faction may roll an additional d10 when making an attack against an asset that requires tech level 5 to purchase. The faction may roll an extra die when making a test to detect Stealthed assets.
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Pirates

This faction is a scourge of the spacelanes, driving up the cost of shipping and terrorizing merchant captains without pity. They steal and refit ships with vicious ingenuity, cobbling together space armadas out of the leavings of their prey.

EFFECT	Any movement of an asset onto a world that has a Base of Influence for this faction costs one extra FacCred, paid to this faction.
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Planetary Government

This faction is the legitimate government of a planet. Rebel groups and rival factions may have assets on the planet, but control over the instruments of the state is firmly in this faction's hands. The faction may rule openly, or it may simply have an inexorable grasp on the existing authorities.

EFFECT	The faction's permission is required to buy or import those assets marked as needing government permission. This tag can be acquired multiple times, once for each planet the faction controls.
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Plutocratic

This faction prizes wealth, and its membership strives constantly to expand and maintain personal fortunes. Perhaps it is a ruling council of oligarchs or a star-spanning trade cartel, but whatever form it takes, this faction knows how to get the most effect from a credit.

EFFECT	Once per turn, this faction can roll an additional d10 when making a Wealth attack.
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Preceptor Archive

This faction is or has close ties to a Preceptor Archive a place of learning operated by the learned Preceptors of the Great Archive. These Archives are peaceful institutions dedicated to the spread of practical knowledge and useful engineering to the wider cosmos. Their large numbers of educated personnel make advanced equipment more practical for deployment.

EFFECT	Purchasing an asset that requires tech level 4 or more costs one fewer FacCred than normal. The Preceptor Archive may also take the special action "Teach Planetary Population", costing 2 FacCredits and allowing them to roll 1d12 for one world. On a 12, the world's tech level permanently becomes 4 for the purposes and purchases of this faction.
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Psychic Academy

Most significant factions are capable of employing psychics, but this faction can actually train their own. They excel at precise and focused application of the psionic disciplines, and can get far more out of their available psychic resources than other factions.

EFFECT	This faction can provide psionic mentor training to qualified psychics. Once per turn, this faction can also force a rival faction to reroll any one d10, whether or not this faction is involved in the roll.
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Savage

Whether a proud tribe of neoprimitives struggling against the material limits of their world or a pack of degenerate tomb world cannibals, this faction is accustomed to surviving without the benefits of advanced technology and maximizing the benefit of all local resources.

EFFECT	Once per turn, this faction can roll an extra die when defending with an asset that requires tech level 0 to purchase.
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Scavengers

This faction might live within the wreckage of a tomb world, salvage the castoffs of some decadent pleasure-world or ply the ruins of an orbital scrapyards. Whatever their territory, this faction knows how to find worth amid seemingly useless trash.

EFFECT	Whenever the faction destroys an asset or has one of their assets destroyed, they gain one FacCred.
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Secretive

This faction is marked by elaborate protocols of secrecy and misdirection. It may be split up into numerous semi-autonomous cells, or consist largely of trained espionage professionals. Simply finding the assets of such a faction can often be more difficult than destroying them.

EFFECT	All assets purchased by this faction automatically begin Stealthed. See the list of Cunning assets for details on Stealth.
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Technical Expertise

The faction is staffed by large numbers of expert engineers and scientists. They can turn even the most unpromising and limited labor pool into superb technicians.

EFFECT	This faction treats all planets on which they have a Base of Influence as if they were at least tech level 4. They can build Starship-type assets on any world with at least ten thousand occupants.
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Theocratic

The faction is fueled by the fierce certainty that God is with them and with no one else. The tight and occasionally irrational obedience that pervades the organization makes it difficult to infiltrate or subvert effectively.

EFFECT	Once per turn, this faction can roll an extra d10 when defending against a Cunning attack.
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Warlike

There are factions with a military orientation, and then there are factions that just really love killing things. Whether or not this faction has developed sophisticated military resources and techniques, the membership is zealous in battle and has a positive taste for fighting.

EFFECT	Once per turn, this faction can roll an additional d10 when making a Force attack.
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Creating Factions for a Sector

To create a faction, first decide on the scale of the organization. Many factions are restricted to a single world, and even the most impressive sector empire rarely exerts direct control over more than a dozen worlds. Place the faction's homeworld and locate any Bases of Influence it might have on other worlds. A few words beside each Base describing the form it takes can be handy in later planning out adventures with the faction- noting that a Base is a "hidden training camp", "cult religion front", "cabal of bribed politicians", "academic society supporters", or so forth.

Next, prioritize the faction's attributes, deciding the order in which they focus on Force, Cunning, and Wealth. Minor factions should have a 4 in their most important attribute, major sector powers should have a 6, and regional hegemons should have an 8. Their second-most important attribute is one less than their primary, and their tertiary attribute is three less. You can calculate the faction's hit points from that, but normally minor powers will have 15 HP, major powers will have 29 HP, and sector hegemons will have 49 HP. Their Bases of Influence normally have a maximum HP equal to half that.

Give minor powers one asset in their primary attribute and one asset in a different attribute. Give major powers two assets in their primary attribute, and two assets in different attributes, and give regional hegemons four assets in their primary and four in others. Place these assets on the worlds occupied by the faction.

Select an appropriate faction tag for the organization, one fitting their special focus and origins. If the faction has direct governmental control over one or more worlds, add Planetary Government tags for those planets.

Finally, select a Goal for the faction. For your initial three or four sector factions, try to pick goals that will put them in conflict with each other. If the factions you make are content to hide from the world and get along in peace and quiet, they're unlikely to be terribly useful as patrons or enemies for the PC group, unless you intend to enlist the PCs as defenders of some beleaguered group of innocents.

Creating PC Factions

Eventually, it's likely that a PC is going to accumulate the necessary power and influence to start their own faction. Traditionally, a 9th level PC has gained enough renown and competence that others will want to seek his or her service, and they can choose to parlay that into a faction of their own. This may happen at earlier levels, depending on whether or not the GM finds it reasonable that the PC should be able to form an organization of planetary importance.

Newly-founded factions are fragile, vulnerable things. They start with a score of 2 in their primary attribute and 1 in the others, 8 hit points, and one asset in their primary attribute. The GM may select one faction tag appropriate to the new organization's nature.

The exact details of a PC's new faction will depend largely on what the character did to form it. A PC who organizes a colonial expedition to an uninhabited world will end up with a faction very different from that of a PC that starts her own psychic academy. In general, PCs have to actively work to create their faction. It does not simply arrive as the natural birthright of a 9th level PC.

Adventures and Factions

The actions of adventurers fall outside the faction turn, but the consequences of their escapades can translate into the loss or acquisition of FacCredits, assets, or faction hit points. If the players come up with a scheme to strike at the leadership of the Brotherhood of the New Man, success or failure isn't determined according to Force attacks or Cunning defenses. Success is determined by the outcome of the adventure itself, and the group's ability to overcome the security and obfuscation that surrounds these enigmatic disciples of genetic engineering.

The amount of damage done or benefit given to a faction by a group's adventures should be substantial, at least as much as could be accomplished with a faction turn. It may not be possible to bring down an interstellar empire by precision strikes and subversion, but the players should be able to see concrete effects from their successes. At the very least, the newlines at the end of each faction turn should include public commentary on the visible consequences of their actions.

Some players will want to take advantage of the resources of their factions in the course of their adventures, either bringing along troops or specialists, or utilizing faction assets on a personal level. This should be permitted as a general matter; there's not much fun in being a colonial governor if you can't even get a corporal's guard of bodyguards to look after you. Faction equipment should also be available in reasonable amounts. Subordinates are not adventurers, however, and while they will perform their duties diligently and well, they won't willingly take the kind of risks that adventurers often relish. Faction assets should be an advantage and a tool for the PCs rather than a crutch.

It may come up that a character wants to withdraw credits from his faction, or donate loot won in the course of their adventuring. FacCredits translate poorly into normal credits, as they often represent resources that don't liquidate easily into cash. The GM should feel free to prohibit directly withdrawing cash from a faction if a PC comes to rely on it too heavily. Otherwise, one FacCred will usually translate into about 100,000 credits worth of cash, with substantially larger returns if used to make investments, build things, or otherwise create tangible results.

Characters can give up to 1d4 x 100,000 credits to a faction in any one turn, with each 100,000 credits becoming 1 FacCred. Any more than this in one turn is wasted due to accounting inefficiency, and the faction will need to spend a full turn processing the donation before it becomes FacCredits.

Example Factions

A GM doesn't always have time to sort out the details of every faction that might be needed. A group might decide to attack the planetary government of a world that wasn't important or interesting enough to merit the effort to define its governmental faction during sector creation, for example. The following sample factions can be pulled and used for such places as necessary. Where appropriate, you can add the Planetary Government tag for legitimate world governments.

Colony World

Thinly-populated worlds with limited infrastructure tend to have weak colonial governments concerned chiefly with issues of basic survival rather than expansion or intrigue.

ATTRIBUTES	Force 4, Cunning 3, Wealth 1
HIT POINTS	15
ASSETS	Guerilla Populace/Force 2, Saboteurs/Cunning 2
TAGS	Colonists

Lost World

Primitive and barbaric by the standards of the space going worlds, a lost world lacks the technical resources of their neighbors, but may well have substantial advantages in population and cultural cohesion depending on the world's habitability.

ATTRIBUTES	Force 4, Cunning 1, Wealth 3
HIT POINTS	15
ASSETS	Zealots/Force 3, Harvesters/Wealth 1
TAGS	Savage

Backwater Planet

Perhaps this world was important once, but disaster, ennui, or the Scream has left it a sleepy planet disinterested in the wider galaxy. Most worlds with ordinary levels of technology in a sector will fit this template.

ATTRIBUTES	Force 6, Cunning 3, Wealth 5
HIT POINTS	29
ASSETS	Postech Infantry/Force 4, Planetary Defenses/Force 6, Informers/Cunning 1, Bank/Wealth 4
TAGS	Deep Rooted

Zealous Faith

This religious organization is a powerful force in the sector, likely with major congregations on several worlds.

ATTRIBUTES	Force 3, Cunning 6, Wealth 5
HIT POINTS	29
ASSETS	Demagogue/Cunning 6, Organization Moles/Cunning 5, Zealots/Force 3, Marketers/Wealth 5
TAGS	Theocratic

Regional Hegemon

This world is the mightiest military power in the sector and leads a half-dozen neighboring worlds in a "voluntary confederation" that it ever seeks to expand.

ATTRIBUTES	Force 8, Cunning 5, Wealth 7
HIT POINTS	49
ASSETS	Space Marines/Force 7, Planetary Defenses/Force 6, Blockade Fleet/Force 5, Extended Theater/Force 4, Pretech Manufactory/Wealth 7, Shipping Combine/Wealth 4, Tripwire Cells/Cunning 4, Cybernijas/Cunning 3
TAGS	Imperialists

Mercantile Combine

A star-spanning consortium of merchants might operate out of one particular world, but their final loyalty is always to their credit balance.

ATTRIBUTES	Force 3, Cunning 5, Wealth 6
HIT POINTS	29
ASSETS	Venture Capital/Wealth 6, Shipping Combine/Wealth 4, Hardened Personnel/Forces 2, Blackmail/Cunning 2
TAGS	Plutocratic

Eugenics Cult

Some people are born to rule- literally. These eugenics cults believe that superior breeds of humanity can be successfully engineered, and that good genetic background legitimizes rule over less "advanced" humans. Such cults are widely loathed, but the experimental medical treatment they offer to those who can find them makes unwilling converts of some.

ATTRIBUTES	Force 3, Cunning 6, Wealth 5
HIT POINTS	29
ASSETS	Boltholes/Cunning 5, Demagogue/Cunning 6, Laboratory/Wealth 3, Engineered Slaves/Force 1
TAGS	Eugenics Cult

Rebel Freedom Fighters

Even in the most tyrannical corners of the galaxy, the human heart yearns for freedom. These factions spring up in the shadow of oppressive governments. For each one that is crushed, a new one rises in time.

ATTRIBUTES	Force 3, Cunning 4, Wealth 1
HIT POINTS	15
ASSETS	Seditionists/Cunning 4, Zealots/Force 3
TAGS	Secretive

CHAPTER NINE

ADVENTURE CREATION

After developing one or more worlds, a GM ought to have a fairly substantial list of Friends, Enemies, Places, Complications, and Things appropriate to a given planet. An experienced GM may well be able to assemble an interesting adventure out of these pieces, but even the most practiced designer might be hard-pressed to come up with enough interesting setups to fill out an entire sector.

The methods that follow are by no means the best or only way to devise an adventure, but they're serviceable techniques for a GM. These procedures work best if you've already generated a world as per the World Generation chapter, but the basic outlines can function even without such support.

Select the Adventure Outline

The first step in creating an adventure is to roll or develop an adventure outline. The adventure seeds table provides a hundred possibilities, but a GM can just as readily assemble something of his or her own out of the elements of a world.

Adventures are fundamentally about conflicts that the PCs can help resolve. At the simplest level, you should consider just picking two elements you've prepared and constructing a conflict between them. One has something the other wants, one is someone the other hates, one is a terrible Complication that the other needs to survive, and so forth. An adventure needs an interesting conflict at its heart, and it has to be something that the PCs will prove crucial in resolving. If all the PCs are expected to do is act as set dressing while other forces resolve the question, they're likely to end up bored or frustrated.

One important thing to keep in mind when designing an adventure is that it should have something to do with the world or location in which it takes place. If the party is on the arctic world of Gelida with its iron towers full of zealous fire-cultists, it's something of a waste to run an adventure about a double-dealing psychic charlatan-thief and his sapient alien "monkey" henchman. The latter adventure may be a perfectly good one, but it gives the players no special impression that they're on Gelida, or that that world is any different from any other in the firmament.

The Places, Friends, Enemies, Complications, and Things created in the world generation stage are specifically intended to locate the adventure on a particular planet. If other qualities of the world

Adventure Creation Summary

Select the Adventure Outline

Roll or select from the adventure seeds table to get a basic adventure outline. Fill in the outline with Enemies, Friends, Complications, Things, and Places appropriate to the world.

Set the Hook

The PCs need an entry point into the situation, some NPC or twist of events that introduces them to the adventure. This may be something as simple as a plea for help from a sympathetic Friend, or it might be an offer of employment or a coincidental run-in with elements of the adventure.

Make sure to pick hooks suitable for the group. A band of hard-eyed mercenaries is going to require a different sort of inducement than a wandering crew of do-gooders.

Record Specifics

Write down statistics for those NPCs that might need them; you can use the Resources chapter to get quick stats for NPCs that have character classes. If you need alien monster, pull them from the Xenobestiary chapter, or generate sentient alien races from the Alien Creation chapter.

Pick or Create Maps

If the adventure is likely to end up in specific Places, it's prudent to have some sort of map of the Place, even if it's simply a sketch. Adventures that are mainly about exploring an alien structure or lost installation are going to need more carefully-developed and "interesting" maps than places that are simply needed for a backdrop.

Choose Rewards

Decide how many credits worth of payment and plunder the characters might get from the adventure, and place the valuables accordingly. Determine how many XP will be earned by each successful PC.

come to mind, you should feel free to work those in as well. It may be something as tangible as the perpetual rotten-egg stink of the world's atmosphere, or it might be the pervasive atmosphere of silent fear on a world ruled by a panopticon tyranny.

If the PCs have a history on a world, you should consider tying current events into their prior activities, either through using related elements or involving them in some consequence of their past choices. One of the larger attractions of a sandbox style of play is the ability to have lasting effects on a place without worrying about the consequences to some overarching narrative arc. You should feel free to give the players the benefit of that by letting their past choices show through in their later adventures on a world. Old enemies, old friends, and old mistakes should all make recurring appearances.

At this stage, you should also spare a few thoughts as to the kind of resources you're going to need to run the adventure. A situation based on political intrigue or diplomacy is going to require well-developed NPCs with their own clear agendas and an idea about what kind of deals they will and won't strike. Conversely, a location-based adventure that revolves around exploring an abandoned pretech space station or long-buried alien complex is going to have to pay more attention to the creation of an interesting and detailed place to explore.

It's not necessary to develop these resources just yet, but you should keep their need in mind. If you don't really enjoy tracking the ambitions of multiple scheming nobles, you probably shouldn't build an adventure that will require it, and if you can't draw up an interesting map to save your life, you should be careful about trying to run a location-based adventure. Online resources and the generators provided in this book can help ease these problems, but they're still not trivial.

It's also important to keep in mind the kind of PCs that will be playing the adventure and the sort of moral questions they're interested in exploring. By default, it's best to stick with adventure outlines that don't require active villainy on the part of the PCs to resolve successfully. A little moral ambiguity is fine, along with a certain roguish contempt for legal regulations, but full-fledged antiheroism should be saved for groups that you know will enjoy it. Such parties will usually tip their hand early on with their cheerful contempt for human life and their willingness to do anything that advances their own interests.

Set the Hook

Once you've established the general outline of the adventure, the next step is to determine the "hook" that will get the PCs involved. In many cases, the right hook is going to depend largely on the kind of players you have and the sort of things that specifically interest their PCs.

In traditional fantasy games, the hoary old trope of "a stranger approaches you in a bar" is a perennial favorite for dragging a group into some complicated situation. In truth, this kind of setup works very well in the *Stars Without Number* setting. Most adventurers are star-faring wanderers, on a planet one week and gone forever the next. They are the ideal people to engage for jobs that are dirty, risky, and potentially illegal. Even if the local authorities find out about the deal, the primary suspects are likely to be several hundred light years distant. Just as conveniently, clients can rest



assured that offworlders are highly unlikely to be double agents or police informers, and they may simply not understand that what is being asked of them is at all shady or unacceptable on this planet. They're the perfect blind patsies for dirty work.

Spacer bars are a common contact point for people looking to hire deniable assistance. Some ship captains will also let it be known unofficially around a spaceport that one or more of their passengers are "looking for work". Organizations or people who expect to do a lot of business with morally-flexible offworlders often cultivate contacts among starport personnel to tip them off to likely hires. PCs shouldn't be surprised if strangers approach them dirtside to ask their assistance for certain... *complicated* situations.

Another useful hook is to drop them into the middle of a situation. If an adventure involves two warring factions, have a fight break out around the PCs and an NPC conveniently provide the context to them. If it involves a natural disaster or other physical Complication, have it happen right where the players are standing. Essentially, bring the adventure to them. You should be careful to provide some obvious follow-up leads from the event to point the group towards the main body of the adventure, such as a helpful NPC or evidence left behind in the wake of an event. You may also need to make it explicitly obvious how following up the leads will be potentially profitable for the group; some PCs are more mercenary than adventurous, and will need the prospect of suitable financial compensation to move them.

Old friends, family, and acquaintances can also show up in the strangest places. It's important not to overdo this angle lest the players end up feeling like they've got troublesome extended family on every planet in the sector, or old spacing buddies in every bar within six spike drills. Still, selectively used, this can be a very powerful hook to catch a PC's attention. The best variant of this hook uses NPCs that the group has helped in the past. Such recurring cast helps convey a sense of continuity and consequence about a group's actions.

Strangers in bars, "suddenly, cyberninja attack!", and old friends are all useful hooks, but they're also hooks that essentially bring the adventure to the PCs. They're good with new groups that haven't yet developed enough comfort with the sandbox style to seek their own adventures. Players with more experience in the style might actively seek out situations where their special talents can be profitably employed. You can't rely on a group to do this, but when they do it can make your life a great deal easier.

For these situations, you should leave a few obvious hints that a potential adventure is in the offing. Talk in spaceport bars, newsflashes from local journalists, or just a particular emphasis on a specific element of a world when you describe the spaceport to them. Players will often pick up on a GM's descriptions; if you spend noticeable time talking about something enigmatic or mysterious, players will tend to naturally assume that there's something you want them to investigate. If none of these hints succeed at catching the group's interest, you can use one of the more direct hooks to reel them in.

Calibrating Combat

It can be tricky to determine the right level of difficulty for a combat encounter. Still, there are a few rough guidelines that are useful for assembling a worthwhile brawl.

First, add up all the dice of damage your chosen enemies are throwing at the PCs in one turn. A group of five goons with semiauto pistols, for example, are throwing 5d6+5 damage at the party each turn. Given that enemies usually hit about a quarter to a third of the time they attack a PC, multiply that total by one-quarter or one-third. Thus, the goons can expect to do 5 or 10 points of damage to the party each round of the fight.

If the party is composed of 1st level PCs, that's enough to kill a PC or two each round. If the goons get the drop on the PCs, half the party might be dead before the party can even act. A group of 4th level PCs will be much better equipped to handle that incoming damage, though even then, it's nothing to sneeze at. To determine how long the enemies will last against the PCs, just do the calculations in reverse.

If your group doesn't have a biopsionic psychic, they're going to need some other source of revival and healing. Lazarus patches are a must, and you should consider being generous about letting them find pretech healing drugs. You should not let these tools serve as an easy replacement for a trained biopsionic, but without them, most groups will be unable to handle more than one or two fights before seeking medical attention. If you're willing to live with this, you should design your adventures accordingly.

Be careful about initiative. A free surprise round makes an enormous difference in many fights, and can give the PCs a fighting chance against otherwise overwhelming odds- or else ensure their doom at the hands of an enemy ambush. Make sure the players are aware of the importance of surprise, cover, and getting in the first shot.

Don't feel obligated to calibrate all fights to what the PCs can handle. If logic insists there are 40 bandits with laser rifles in that military camp, then there are 40 bandits with laser rifles. Players will have to either avoid the camp or find an army of their own.

Some nudges can make a large difference in a fight. PCs are usually wise enough to focus their fire on a single enemy at a time, taking them out of the fight before turning their weapons on another. NPCs don't need to be so tactically adroit, and low-level parties can often be saved by enemies who simply shoot or swing at the nearest foe rather than the most injured one. Animals and alien beasts are particularly unlikely to focus their attacks. Still, elite soldiers and other conspicuously competent types should show better target discipline.

Finally, don't hesitate to let the group pad out their party with henchmen and hirelings if you anticipate a lot of fighting. These minions are rarely interested in anything too obviously suicidal, but even the least competent serves as a useful bullet sponge.

Occasionally, you'll run into a group that obstinately shuns adventure. Characters in *Stars Without Number* are a lot more fragile than in some other games, and it's not hard to get them killed if a player is careless. For some players, this induces a kind of paranoia, where danger is to be avoided at all costs. Even after you drop them into the chemical spill, the religious riot, or the plague outbreak, they resolutely hunker down in the nearest locked room and wait for the excitement to pass. Rather than trying ever-more-intrusive hooks to pry them out of their holes, you should take the players aside and explain that "adventurers seek excitement" is one of the core assumptions of the game, and that it doesn't work if the PCs are bent on safety at all costs. A GM can do only so much to make an adventure. The players ultimately have to be willing to participate for it to work.

Record the Specifics

After you've selected an outline and chosen a hook, you need to do a little paperwork. Identify the important NPCs in the adventure. Some of them are not going to need anything more than a name, a few distinctive characteristics, and a motivation. The corpulent Raja of Shippu does not need statistics, as it is extremely unlikely for him to get involved in any situation where his statistics will matter. By the same token, Squinty Tom the three-eyed mutant beggar doesn't need stats because he has no real hope of defending himself against a determined attacker and his skills are unimportant.

Even these NPCs should have a noticeable trait or two to help hook them in the players' memories. The minor NPC generator provided in the Resources section can be convenient for quickly setting the needed particulars. You should also jot down a sentence or so about the NPC's motivation, to help guide the choices that they might make during an adventure. Squinty Tom's main motivation might be to protect his sister, and so no amount of bribery will convince him to let the PCs risk her as bait for some cybernetic slasher deep in the hive city's bowels. Conversely, if all Squinty Tom cares about are the credit chips in his bowl, he's going to be much more open to such proposals.

Some NPCs will require more than this. For these, you can either pick a set of generic NPC stats from the Xenobestiary chapter, or use the premade NPC statistics provided in the Resources chapter for those NPCs with character classes. You should tweak these templates as necessary. A planet with no interstellar trade is unlikely to have its warrior elite equipped with pretech shear rifles, unless they're carefully-preserved heirlooms from some ancient cache.

You should also make a list of places important to the adventure and write a few lines of color or important information about them. If the adventurers are expected to act as bodyguards to a diplomat at a meeting at a remote resort, you should name the resort and identify a few eye-catching qualities about it, along with identifying any security measures that might be important to the murder that will happen there. Take a moment to put yourself in the PCs' shoes. Try to anticipate a few of the more obvious questions they'll ask and make sure you have answers for them.

Pick or Create the Maps

Some places require more than a few notes. For adventures that revolve around exploring a site, you'll need to develop and key a map of the place. At other times, you might just need a rough sketch map of a location where particular terrain and object placement are important, such as a warehouse where you expect a firefight is going to break out between the PCs and some organ smugglers.

Combat in *Stars Without Number* is not reliant on a grid and isn't terribly particular about exact locations. Even so, it's often useful to have a sketch map of a combat area simply to let players understand all the different elements present. Complicated combat zones can be hard to describe verbally or remember correctly, and a sheet of notepaper with a few pencil-scratchings can be worth a thousand words in describing the relationship between a pool of spilled caustic and an overhead conveyor belt of unfinished robot parts.

It is in site-based adventures that more elaborate maps are necessary. These adventures are all about exploring a particular site, either to overcome some entrenched enemy there or to unlock the secrets of a mysterious location. Architectural-quality floor plans aren't necessary for sites like this, but details of distance, general construction, and building placement are important.

One important distinction to draw is between an inhabited site and an uninhabited one. People or aliens live in an inhabited site, and have their own schedules, security measures, and willingness to negotiate with strangers. For sites like this, it's not sufficient to simply decide that there are twelve space pirates camped in the ruins of the burnt-out village as they wait for their comrades to return from their asteroid base. You need to have a general idea of the watches the pirates keep, where they sleep, how they eat, and the degree to which they're willing to talk to strangers rather than opening up immediately with gunfire.

The map of an inhabited site also needs to make at least rudimentary sense. PCs are unlikely to be checking on the ratio of latrines to inhabitants or questioning the structural plausibility of the local wood buildings, but even the least detail-oriented player might be a little nonplussed at a main entry corridor that's riddled with lethal traps and requires spelunking to reach the sleeping areas. Areas that are heavily trafficked should be fairly straightforward to reach, and traps and security measures should take into account the number of people who need to pass them on a regular basis.

Uninhabited sites might be long-abandoned structures, natural locations of interest, or even less-frequented portions of otherwise inhabited locales. These sites can afford to be a little more exotic in their configuration, since they lack a standing population to accommodate. Still, it can occasionally be difficult to make an uninhabited site sufficiently interesting to explorers without taking care to include multiple mysteries or exotic devices. Players want to find things when they explore a place, and what they find has to be interesting, even if it may not be salable. "Treasure", in the form of salvage or prizes won in battle is a convenient lure for drawing the players deeper into an otherwise uninhabited site.

You should feel free to snare maps from many different sources, online and off. Fantasy maps are often quite easy to convert to sci-fi use simply by changing thatched huts into ceraplast colonial housing, and dungeons can be converted into ancient alien ruins by a light reskinning of the corridors and redressing of the rooms. A library is a library, whether it's full of moldering tomes or dusty data cubes. A treasure chest of gold is just as easily a case full of valuable pretech manufacturing components. Creating good maps can be an enjoyable and entertaining part of making an adventure, but you should feel free to take advantage of other resources as circumstances recommend.

Choose Rewards

As exciting as it may be to visit new worlds, meet interesting people, and shoot them with lasers, most PCs have a more than passing interest in turning a profit. Once you've laid out an adventure, you need to choose an appropriate reward and insert it into the adventure accordingly.

The table provided gives examples of rewards appropriate to a character of a given level. To determine the total award for an adventure, simply take the highest PC level in the group and multiply by the number of PCs. The third column shows the average number of adventures it will take for an Expert to gain a level using the award given. Warriors and Psychics will rise slightly more slowly. If you prefer a faster or slower rate of advance, just alter the numbers accordingly.

About half of this reward should be hidden or otherwise contingent on exceptionally good performance. Their employer might put up half the sum as payment for their services, with the other half consisting of loot they may or may not pick up in the course of their duties. The ancient alien complex might have some valuables in relatively plain sight, while the rest require more careful searching or puzzling out certain mysteries.

These rewards are the only ones that actually grant XP to the PCs, but enterprising characters can often make a substantial amount of money on the side by resale of plundered goods or ingenious disposition of things found on the course of their adventures. This shouldn't be specially discouraged; if the recently-defeated nemesis had a working FEP suit, it's only rational that the PCs might try to use or sell it. It's possible to declare that equipment was irreparably damaged during a fight or keyed to the user's genetic fingerprint, but such heavy-handed tactics should be used sparingly. It's usually wiser simply to not give enemies anything you wouldn't want to see in PC hands.

Resale value of plunder tends to be low. Assuming it's even possible for the PCs to unload a hamper full of bloodied, torn combat field uniforms on the local market, all manner of awkward questions can arise. Fences with less curious natures rarely pay more than 20% of the item's market value, and these people can be difficult to find for offworlders unfamiliar with the local culture. Between this complication and a careful enforcement of encumbrance rules, it's usually possible for a GM to keep the PCs from stripping the boots off of every downed enemy and cutting the friezes off every alien structure they pass. A healthy spirit of avarice shouldn't

CHARACTER REWARDS		
Level	Average Reward	Adventures/Level
1	750	2
2	750	2
3	1,000	3
4	1,500	4
5	2,000	6
6	3,000	8
7	5,000	10
8	8,000	13
9+	10,000	10

be punished, however, and if players want to use or sell some genuinely worthwhile piece of loot, they shouldn't be grudged their compensation.

Credits and plunder aren't the only kinds of rewards an adventure can give. The friendship of an NPC, a favor that can be cashed in later, or contacts inside an important faction can all be very useful rewards to a group. For adventures where these intangible things are the main profit to be had, it's best to count them as equivalent to a certain cash reward for purposes of calculating XP. It's also often worthwhile to spell these benefits out explicitly for players at the end of a session, as some players can occasionally forget to take into account these social benefits.

Ships and Other Major Plunder

A quick glance over the starship costs will make clear that even a modest free merchant hull costs far more than any adventuring party might expect to make in rewards, and the maintenance and upkeep costs just compound the gap. If the rewards given above are the only income an adventuring group gets, they'll never be able to buy a ship.

The simple solution is to let the players acquire a ship in the course of their adventures. There are a great many situations where an antagonist might have a small merchant ship landed someplace discreet, and if it should vanish into the hands of the PCs the malefactor can hardly complain to the planetary government. It might also be possible that a grateful employer gives them the use or ownership of a craft, or one might be discovered abandoned on a remote world or distant ruin. The ship may not even be human in manufacture, requiring its own adventure in figuring out how to use the ancient controls and maintain its bizarre engineering.

Some players will leap at the chance to own a ship- and others will leap at the chance to sell it. Most ships acquired in underhanded fashion are simply not salable on the open market; no buyer wants to invest millions of credits on a probably-stolen starship. Black market starship sales are not the safest of commercial transactions, and few buyers are willing to pay more than a small percentage of the ship's full value. Maintaining a starship can be a very expensive proposition. You should not be reluctant to increase adventure rewards or offer more remunerative opportunities to players with a starship to feed, though this should not increase the XP gained.

1d100 ADVENTURE SEEDS	
1	An Enemy seeks to rob a Friend of some precious Thing that he has desired for some time.
2	A Thing has been discovered on property owned by a Friend, but a Complication risks its destruction.
3	A Complication suddenly hits the party while they're out doing some innocuous activity.
4	The players unwittingly offend or injure an Enemy, incurring his or her wrath. A Friend offers help in escaping the consequences.
5	Rumor speaks of the discovery of a precious Thing in a distant Place. The players must get to it before an Enemy does.
6	An Enemy has connections with offworld pirates or slavers, and a Friend has been captured by them.
7	A Place has been seized by violent revolutionaries or rebels, and a Friend is being held hostage by them.
8	A Friend is in love with someone forbidden by social convention, and the two of them need help eloping.
9	An Enemy wields tyrannical power over a Friend, relying on the bribery of corrupt local officials to escape consequences.
10	A Friend has been lost in hostile wilderness, and the party must reach a Place to rescue them in the teeth of a dangerous Complication.
11	An Enemy has committed a grave offense against a PC or their family sometime in the past. A Friend shows the party a weakness in the Enemy's defenses.
12	The party is suddenly caught in a conflict between two warring families or political parties.
13	The party is framed for a crime by an Enemy, and must reach the sanctuary of a Place before they can regroup and find the Thing that will prove their innocence and their Enemy's perfidy.
14	A Friend is threatened by a tragedy of sickness, legal calamity, or public humiliation, and the only one that seems able to save them is an Enemy.
15	A natural disaster or similar Complication strikes a Place while the party is present, causing great loss of life and property unless the party is able to immediately respond to the injured and trapped.
16	A Friend with a young business has struck a cache of pretech, valuable minerals, or precious salvage. He needs the party to help him reach the Place where the valuables are.
17	An oppressed segment of society starts a sudden revolt in the Place the party is occupying. An Enemy simply lumps the party in with the rebels and tries to put the revolt down with force. A Friend offers them a way to either help the rebels or clear their names.
18	A vulnerable Friend has been targeted for abduction, and has need of guards. A sudden Complication makes guarding them from the Enemy seeking their kidnapping much more difficult. If the Friend is snatched, they must rescue them from a Place.
19	A mysterious Place offers the promise of some precious Thing, but access is very dangerous due to wildlife, hostile locals, or a dangerous environment.
20	An Enemy and a Friend both have legal claim on a Thing, and seek to undermine each other's case. The Enemy is willing to do murder if he thinks he can get away with it.
21	An Enemy seeks the death of his brother, a Friend, by arranging the failure of his grav flyer or shuttlecraft in dangerous terrain while the party is coincidentally aboard. The party must survive the environment and bring proof of the crime out with them.
22	A Friend seeks to slip word to a lover, one who is also being courted by the Friend's brother, who is an Enemy. A Complication threatens to cause death or disgrace to the lover unless they either accept the Enemy's suit or are helped by the party.
23	An Enemy is convinced that one of the party has committed adultery with their flirtatious spouse. He means to lure them to a Place, trap them, and have them killed by the dangers there.
24	An Enemy has been driven insane by exotic recreational drugs or excessive psionic torching. He fixes on a PC as being his mortal nemesis, and plots elaborate deaths, attempting to conceal his involvement amid Complications.
25	A Friend has stolen a precious Thing from an Enemy and fled into a dangerous, inaccessible Place. The party must rescue them, and decide what to do with the Thing and the outraged Enemy.
26	An Enemy has realized that their brother or sister has engaged in a socially unacceptable affair with a Friend, and means to kill both of them unless stopped by the party.
27	A Friend has accidentally caused the death of a family member, and wants the party to help him hide the body or fake an accidental death before his family realizes what has happened. A Complication suddenly makes the task more difficult.
28	A Friend is a follower of a zealous ideologue who plans to make a violent demonstration of the righteousness of his cause, causing a social Complication. The Friend will surely be killed in the aftermath if not rescued or protected by the party.

1d100 ADVENTURE SEEDS	
29	A Friend's sibling is to be placed in a dangerous situation they've got no chance of surviving. The Friend takes their place at the last moment, and will almost certainly die unless the party aids them.
30	Suicide bombers detonate an explosive, chemical, or biological weapon in a Place occupied by the party where a precious Thing is stored. The PCs must escape before the Place collapses on top of them, navigating throngs of terrified people in the process and saving the Thing if possible.
31	An Enemy who controls landing permits, oxygen rations, or some other important resource has a prejudice against one or more of the party members. He demands that they bring him a Thing from a dangerous Place before he'll give them what they need.
32	A Friend in a loveless marriage to an Enemy seeks escape to be with their beloved, and contacts the party to snatch them from their spouse's guards at a prearranged Place.
33	A Friend seeks to elope with their lover, and contacts the party to help them meet their paramour at a remote, dangerous Place. On arrival, they find that the lover is secretly an Enemy desirous of their removal and merely lured them to the place to meet their doom.
34	The party receives or finds a Thing which proves the crimes of an Enemy- yet a Friend was complicit in the crimes, and will be punished as well if the authorities are involved. And the Enemy will stop at nothing to get the item back.
35	A Friend needs to get to a Place on time in order to complete a business contract, but an Enemy means to delay and hinder them until it's too late, inducing Complications to the trip.
36	A locked pretech stasis pod has been discovered by a Friend, along with directions to the hidden keycode that will open it. The Place where the keycode is hidden is now owned by an Enemy.
37	A fierce schism has broken out in the local majority religion, and an Enemy is making a play to take control of the local hierarchy. A Friend is on the side that will lose badly if the Enemy succeeds, and needs a Thing to prove the error of the Enemy's faction.
38	A former Enemy has been given reason to repent his treatment of a Friend, and secretly commissions them to help the Friend overcome a Complication. A different Enemy discovers the connection, and tries to paint the PCs as double agents.
39	An alien or a human with extremely peculiar spiritual beliefs seeks to visit a Place for their own reasons. An Enemy of their own kind attempts to stop them before they can reach the Place, and reveal the Thing that was hidden there long ago.
40	A Friend's sibling is an untrained psychic, and has been secretly using his or her powers to protect the Friend from an Enemy. The neural damage has finally overwhelmed their sanity, and they've now kidnapped the Friend to keep them safe. The Enemy is taking this opportunity to make sure the Friend "dies at the hands of their maddened sibling".
41	A Friend who is a skilled precognitive has just received a flash of an impending atrocity to be committed by an Enemy. He or she needs the party to help them steal the Thing that will prove the Enemy's plans while dodging the assassins sent to eliminate the precog.
42	A Friend who is an exotic dancer is sought by an Enemy who won't take no for an answer. The dancer is secretly a Perimeter agent attempting to infiltrate a Place to destroy maltech research, and plots to use the party to help get him or her into the facility under the pretext of striking at the Enemy.
43	A young woman on an interplanetary tour needs the hire of local bodyguards. She turns out to be a trained and powerful combat psychic, but touchingly naive about local dangers, causing a social Complication that threatens to get the whole group arrested.
44	A librarian Friend has discovered an antique databank with the coordinates of a long-lost pretech cache hidden in a Place sacred to a long-vanished religion. The librarian is totally unsuited for danger, but necessary to decipher the obscure religious iconography needed to unlock the cache. The cache is not the anticipated Thing, but something more dangerous to the finder.
45	A fragment of orbital debris clips a shuttle on the way in, and the spaceport is seriously damaged in the crash. The player's ship or the only vessel capable of getting them off-planet will be destroyed unless the players can organize a response to the dangerous chemical fires and radioactives contaminating the port. A Friend is trapped somewhere in the control tower wreckage.
46	A Friend is allied with a reformist religious group that seeks to break the grip of the current, oppressive hierarchy. The current hierarchs have a great deal of political support with the authorities, but the commoners resent them bitterly. The Friend seeks to secure a remote Place as a meeting-place for the theological rebels.

1d100 ADVENTURE SEEDS

47	A microscopic black hole punctures an orbital station or starship above the world. Its interaction with the station's artificial grav generators has thrown everything out of whack, and the station's become a minefield of dangerously high or zero grav zones. It's tearing itself apart, and it's going to collapse soon. An Enemy seeks to escape aboard the last lifeboat and to Hell with everyone else. Meanwhile, a Friend is trying to save his engineer daughter from the radioactive, grav-unstable engine rooms.
48	The planet has a sealed alien ruin, and an Enemy-led cult who worships the vanished builders. They're convinced that they have the secret to opening and controlling the power inside the ruins, but they're only half-right. A Friend has found evidence that shows that they'll only devastate the planet if they meddle with the alien power planet. The party has to get inside the ruins and shut down the engines before it's too late. Little do they realize that a few aliens survive inside, in a stasis field that will be broken by the ruin's opening.
49	An Enemy and the group are suddenly trapped in a Place during an accident or Complication. They must work together to escape before it's too late.
50	A telepathic Friend has discovered that an Enemy was responsible for a recent atrocity. Telepathic evidence is useless on this world, however, and if she's discovered to have scanned his mind she'll be lobotomized as a 'rogue psychic'. A Thing might be enough to prove his guilt, if the party can figure out how to get to it without revealing their Friend's meddling.
51	A Friend is responsible for safeguarding a Thing- yet the Thing is suddenly proven to be a fake. The party must find the real object and the Enemy who stole it or else their Friend will be punished as the thief.
52	A Friend is bitten by a poisonous local animal while in a remote Place. The only antidote is back at civilization, yet a Complication threatens to delay the group until it is too late.
53	A lethal plague has started among the residents of the town, but a Complication is keeping aid from reaching them. An Enemy is taking advantage of the panic to hawk a fake cure at ruinous prices, and a Friend is taken in by him. The Complication must be overcome before help can reach the town.
54	A radical political party has started to institute pogroms against "groups hostile to the people". A Friend is among those groups, and needs to get out of town before an Enemy uses the riot as cover to settle old scores.
55	An Enemy has sold the party an expensive but worthlessly flawed piece of equipment before lighting out for the back country. He and his plunder are holed up at a remote Place.
56	A concert of offworld music is being held in town, and a Friend is slated to be the star performer. Reactionary elements led by an Enemy plot to ruin the "corrupting noise" with sabotage that risks getting performers killed. Meanwhile, a crowd of ignorant offworlder fans have landed and are infuriating the locals.
57	An Enemy is wanted on a neighboring world for some heinous act, and a Friend turns up as a bounty hunter ready to bring him in alive. This world refuses to extradite him, so the capture and retrieval has to evade local law enforcement.
58	An unanticipated solar storm blocks communications and grounds the poorly-shielded grav vehicle that brought the group to this remote Place. Then people start turning up dead; the storm has awoken a dangerous Enemy beast.
59	A Friend has discovered a partially-complete schematic for an ancient pretech refinery unit that produces vast amounts of something precious on this world- water, oxygen, edible compounds, or the like. Several remote Places on the planet are indicated as having the necessary pretech spare parts required to build the device. When finally assembled, embedded self-modification software in the Thing modifies itself into a pretech combat bot. The salvage from it remains very valuable.
60	A Complication ensnares the party where they are in an annoying but seemingly ordinary event. In actuality, an Enemy is using it as cover to strike at a Friend or Thing that happens to be where the PCs are.
61	A Friend has a cranky, temperamental artificial heart installed, and the doctor who put it in is the only one who really understands how it works. The heart has recently started to stutter, but the doctor has vanished. An Enemy has snatched him to fit his elite assassins with very unsafe combat mods.
62	A local clinic is doing wonders in providing free health care to the poor. In truth, it's a front for an offworld eugenics cult, with useful "specimens" kidnapped and shipped offworld while 'cremated remains' are given to the family. A Friend is snatched by them, but the party knows they'd have never consented to cremation as the clinic staff claim.
63	Space pirates have cut a deal with an isolated backwoods settlement, off loading their plunder to merchants who meet them there. A Friend goes home to family after a long absence, but is kidnapped or killed before they can bring back word of the dealings. Meanwhile, the party is entrusted with a valuable Thing that must be brought to the Friend quickly.
64	A reclusive psychiatrist is offering treatment for violent mentally ill patients at a remote Place. His treatments seem to work, calming the subjects and returning them to rationality, though major memory loss is involved and some severe social clumsiness ensues. In actuality, he's removed large portions of their brains to fit them with remote-control units slaved to an AI in his laboratory. He intends to use them as drones to acquire more "subjects", and eventual control of the town.

1d100 ADVENTURE SEEDS	
65	Vital medical supplies against an impending plague have been shipped in from offworld, but the spike drive craft that was due to deliver them misjumped, and has arrived in-system as a lifeless wreck transmitting a blind distress signal. Whoever gets there first can hold the whole planet hostage, and an Enemy means to do just that.
66	A Friend has spent a substantial portion of their wealth on an ultra-modern new domicile, and invites the party to enjoy a weekend there. An Enemy has hacked the house's computer system to trap the inhabitants inside and use the automated fittings to kill them.
67	A mud slide, hurricane, earthquake, or other form of disaster strikes a remote settlement. The party is the closest group of responders, and must rescue the locals while dealing with the unearthed, malfunctioning pretech Thing that threatens to cause an even greater calamity if not safely defused.
68	A Friend has found a lost pretech installation, and needs help to loot it. By planetary law, the contents belong to the government.
69	An Enemy mistakes the party for the kind of offworlders who will murder innocents for pay- assuming they aren't that kind, at least. He's sloppy with the contact and unwittingly identifies himself, letting the players know that a Friend will shortly die unless the Enemy is stopped.
70	A party member is identified as a prophesied saviour for an oppressed faith or ethnicity. The believers obstinately refuse to believe any protestations to the contrary, and a cynical Enemy in government decides the PC must die simply to prevent the risk of uprising. An equally cynical Friend is determined to push the PC forward as a savior, because that's what's needed.
71	Alien beasts escape from a zoo and run wild through the spectators. The panicked owner offers large rewards for recapturing them live, but some of the beasts are quite dangerous.
72	A trained psychic is accused of going feral by an Enemy. The psychic had already suffered severe neural damage before being found for training, so brain scans cannot establish physical signs of madness. The psychic seems unstable, but not violent- at least, on short acquaintance. The psychic offers a psychic PC the secrets of psychic mentorship training if they help him flee.
73	A Thing is the token of rulership on this world, and it's gone missing. If it's not found rapidly, the existing ruler will be deposed. Evidence left at a Place suggests that an Enemy has it, but extralegal means are necessary to investigate fully.
74	Psychics are vanishing, including a Friend. They're being kidnapped by an ostensibly-rogue government researcher who is using them to research the lost psychic disciplines that helped enable pretech manufacturing, and being held at a remote Place. The snatcher is a small-time local Enemy with unnaturally ample resources.
75	A Friend desperately seeks to hide evidence of some past crime that will ruin his life should it come to light. An Enemy holds the Thing that proves his involvement, and blackmails him ruthlessly.
76	A courier mistakes the party for the wrong set of offworlders, and wordlessly deposits a Thing with them that implies something awful- med-frozen, child-sized human organs, for example, or a private catalog of engineered human slaves. The courier's boss shortly realizes the error, and this Enemy tries to silence the PCs while preserving the Place where his evil is enacted.
77	A slowboat system freighter is taken over by Enemy separatist terrorists at the same time as the planet's space defenses are taken offline by internal terrorist attacks. The freighter is aimed straight at the starport, and will crash into it in hours if not stopped.
78	Alien artifacts on the planet's surface start beaming signals into the system's asteroid belt. The signals provoke a social Complication in panicked response, and an Enemy seeks to use the confusion to take over. The actual effect of the signals might be harmless, or might summon a long-lost alien AI warship to scourge life from the world.
79	An alien ambassador Friend is targeted by xenophobe Enemy assassins. Relations are so fragile that if the ambassador even realizes that humans are making a serious effort to kill him, the result may be war.
80	A new religion is being preached by a Friend on this planet. Existing faiths are not amused, and an Enemy among the hierarchy is provoking the people to persecute the new believers, hoping for things to get out of hand.
81	An Enemy was once the patron of a Friend until the latter was betrayed. Now the Friend wants revenge, and they think they have the information necessary to get past the Enemy's defenses.
82	Vital life support or medical equipment has been sabotaged by offworlders or zealots, and must be repaired before time runs out. The only possible source of parts is at a Place, and the saboteurs can be expected to be working hard to get there and destroy them, too.
83	A Friend is importing offworld tech that threatens to completely replace the offerings of an Enemy businessman. The Enemy seeks to sabotage the friend's stock, and thus 'prove' its inferiority.

1d100 ADVENTURE SEEDS	
84	An Exchange diplomat is negotiating for the opening of a branch of the interstellar bank on this world. An Enemy among the local banks wants to show the world as being ungovernably unstable, so provokes Complications and riots around the diplomat.
85	An Enemy is infuriated by the uppity presumption of an ambitious Friend of a lower social caste, and tries to pin a local Complication on the results of his unnatural rejection of his proper place.
86	A Friend is working for an offworld corporation to open a manufactory, and is ignoring local traditions that privilege certain social or ethnic groups, giving jobs to the most qualified workers instead. An angry Enemy seeks to sabotage the factory.
87	An offworld musician who was revered as little less than a god on his homeworld requires bodyguards. He immediately acquires Enemies on this world with his riotous ways, and his guards must keep him from getting arrested if they are to be paid.
88	Atmospheric disturbances, dust storms, or other particulate clouds suddenly blow into town, leaving the settlement blind. An Enemy commits a murder during the darkness, and attempts to frame the players as convenient scapegoats.
89	An Enemy spikes the oxygen supply of an orbital station or unbreathable-atmosphere hab dome with hallucinogens as cover for a theft. Most victims are merely confused and disoriented, but some become violent in their delusions. By chance, the party's air supply was not contaminated.
90	By coincidence, one of the party members is wearing clothing indicative of membership in a violent political group, and thus the party is treated in friendly fashion by a local Enemy for no obvious reason. The Enemy assumes that the party will go along with some vicious crime without complaint, and the group isn't informed of what's in the offing until they're in deep.
91	A local ruler wishes outworlders to advise him of the quality of his execrable poetry- and is the sort to react very poorly to anything less than evidently sincere and fulsome praise. Failure to amuse the ruler results in the party being dumped in a dangerous Place to "experience truly poetic solitude".
92	A Friend among the locals is unreasonably convinced that offworlder tech can repair anything, and has blithely promised a powerful local Enemy that the party can easily fix a damaged pretech Thing. The Enemy has invested in many expensive spare parts, but the truly necessary pieces are kept in a still-dangerous pretech installation in a remote Place.
93	The party's offworld comm gear picks up a chance transmission from the local government and automatically descrambles the primitive encryption key. The document is proof that an Enemy in government intends to commit an atrocity against a local village with a group of "deniable" renegades in order to steal a valuable Thing kept in the village.
94	A Friend belongs to a persecuted faith, ethnicity, or social class, and appeals for the PCs to help a cell of rebels get offworld before the Enemy law enforcement finds them.
95	A part on the party's ship or the only other transport out has failed, and needs immediate replacement. The only available part is held by an Enemy, who will only willingly relinquish it in exchange for a Thing held by an innocent Friend who will refuse to sell at any price.
96	Eugenics cultists are making engineered slaves out of genetic material gathered at a local brothel. Some of the unnaturally tempting slaves are being slipped among the prostitutes as bait to infatuate powerful officials, while others are being sold under the table to less scrupulous elites.
97	Evidence has been unearthed at a Place that substantial portions of the planet are actually owned by members of an oppressed and persecuted group. The local courts have no intention of recognizing the rights, but the codes with the ownership evidence would allow someone to completely bypass a number of antique pretech defenses around the planetary governor's palace. A Friend wants the codes to pass to his friends among the group's rebels.
98	A crop smut threatens the planet's agriculture, promising large-scale famine. A Friend finds evidence that a secret government research station in the system's asteroid belt was conducting experiments in disease-resistant crop strains for the planet before the Silence struck and cut off communication with the station. The existing government considers it a wild goose chase, but the party might choose to help. The station has stasis-frozen samples of the crop sufficient to avert the famine, but it also has less pleasant relics....
99	A grasping Enemy in local government seizes the party's ship for some trifling offense. The Enemy wants to end offworld trade, and is trying to scare other traders away. The starship is held within a military cordon, and the Enemy is confident that by the time other elements of the government countermand the order, the free traders will have been spooked off.
100	A seemingly useless trinket purchased by a PC turns out to be the security key to a lost pretech facility. It was sold by accident by a bungling and now-dead minion of a local Enemy, who is hot after the party to "reclaim" his property... preferably after the party defeats whatever automatic defenses and bots the facility might still support.

CHAPTER TEN

ALIEN CREATION

Exotic alien races are a staple of science fiction, and most GMs running *Stars Without Number* are going to need a few types of sapients to round out a sector. Some GMs might prefer to run a strictly human game, leaving humanity alone in this particular corner of the cosmos, but most GMs will want to have the details of a few alien races in hand if only to help envision the kind of artifacts and ruins that they might have left behind. This chapter will discuss the role of aliens in a game, a process for creating your own alien races, and a few sample races to use or modify for your own sectors.

The Use of Aliens in the Game

When adding an alien race to your sector, it's necessary to keep in mind the ultimate purpose you have for including them. A given species might be fascinating to you, but if they don't actually help to accomplish something for your game it's likely that the players will simply gloss over their existence. By having a concrete purpose in mind for a race you can ensure that the players have a useful reason to interact with them.

Aliens are useful as antagonists. The classic "bug-eyed monster" trope has survived for a reason; unthinkingly hostile and uncommunicative beings make great fodder for brute physical struggle. Making these monsters part of a sapient, tool-using species allows them to scale upward in threat the way no animal can, and continue to imperil even an experienced, well-equipped band of adventurers.

Antagonism can take more forms than simple combativeness. Aliens can want things, and want them for reasons that would make no sense at all to a human. Biological imperatives, exotic religions, alien philosophies, and customs born on completely un-Earth-like worlds can all justify goals and purposes that would be entirely irrational for a human being. Humans might find themselves at cross purposes with these aliens without ever fully understanding why the beings are pursuing a given goal.

From a GM's perspective, this is a wonderful trait for building adventures. If you need aliens to pursue some goal, however bizarre, you can simply add a trait to them that makes that goal important. For example, if you need aliens to be obsessed with wiping out the humans on a given planet, you can simply decide

that the planet is their ancestral homeworld, to which they must return every thousand years in order to perform a great spawning rite. The presence of the humans there defiles the world, and the aliens grow increasingly frantic as the time for the rite approaches.

Aliens also make excellent patrons for many of the same reasons that they make good antagonists. You can give them a good reason to want almost anything, and players are unlikely to balk at it as unlikely or implausible. If you need to give the players a reason to go somewhere, do something, or find something, you can use aliens to drive the process. The matter might be so important to the aliens that they find themselves willing to employ human agents to accomplish their ends, or it may be that only humans have the numbers and strength to help them.

Aliens are occasions for exploration and discovery. While this may not have the immediate adventure utility of an antagonist or a patron, one of the things about sandbox gaming that appeals to many players is the opportunity to go out and discover new things. The universe is full of bizarre and exotic beings, and there can be a lot of enjoyment in learning about their cultures and traits. Most players aren't interested in a full-dress anthropological study of an alien race, but there is an excitement in visiting uncharted worlds and meeting strange and wondrous beings.

In some cases, this exploration doesn't even need live aliens. The universe is laden with numerous ancient alien ruins, and players can get a good conception of a long-lost race simply from examining what they've left behind. A GM with a firm grasp on a species' psychology and physiology has much of what he needs to create their abandoned cities and outposts and to stock them with art, artifacts, and remnants for the enticement of exploring PCs.

Humanoid species make the most widely useful aliens, and most of the species you create should probably be of that variety. Aliens that are too hard to understand tend to be more animate plot devices, operating by utterly incomprehensible rules and motivations. Like races allow more scope for diplomacy and response to an alien culture, because their societies are fundamentally comprehensible by humans.

The Like and the Others

Most alien races in the universe of *Stars Without Number* can be divided up into two different classes- the Like and the Others. The Like are those species with intellects and societies that are at least somewhat comprehensible to humankind. They may have exotic biologies and strange customs, but humans can understand their motivations and deal with them within a more-or-less comprehensible framework.

The Others are those species that are simply too alien for human communication. Entities of sentient lithic structures, congeries of crystal, even intelligent waveform interactions created by the interplay of energies through alien rock formations- the Others are simply too different for humans to understand. Their goals are incomprehensible, their technology is often hard to even recognize, let alone use, and it's possible that they don't even realize that humanity is a sentient species. The Others are generally avoided if at all possible, though at times "wars" break out when an Other species vents its anger on humanity for reasons known only to them.

Other races are rare, but some xenologists have suggested that they may be much more common than humanity imagines. Places that would never support Like life might be teeming with the bizarre offspring of Other organisms, unnoticed because human scouts haven't bothered to look in such unpromising places. Many Other species might not even be recognized by humanity.

Alien Biology

As a rule of thumb, it's easiest to make Like aliens some flavor of humanoid. They may have a few extra limbs or somewhat different body geometry, but humanoid aliens tend to be easier to build and run than those with drastically different body types. There's less need to adjust human assumptions about architecture, technology, and clothing than there would be for a species of six-legged centauroid mothmen. Of course, if you enjoy the prospect of working out the ramifications of having four gripping hands and organic wheels, you shouldn't feel shackled to the humanoid shape.

Aliens of the Other type can come in any shape or size, largely because they aren't intended to be comprehensible. Their technology and architecture doesn't need to have any link with human conceptions of such; some Others may not even use technology as humans understand it, but instead manipulate their environment with inborn abilities or subtype-creatures of their

Aliens and the Scream

Very few alien races have the same capacity for psychic powers shown by humans. Psychic species exist, but their powers tend to be expressed in more rigid, specific ways than the broad flexibility shown by a trained human psychic. This rigidity did not appear to save them from the Scream. The few reports that filtered in before the Terran Mandate collapsed suggested that they were affected just as badly as were the humans. Some species with widely-spread psychic abilities might have been completely wiped out, leaving their cities and stations empty for others to find.

own species. Most Other species function as plot devices in a game, and it's not necessary to put the same effort into detailing their "biology" if the species aren't intended to make human sense in the first place.

Assuming you're creating a Like species with a humanoid body type, you can roll on the following table to get some hints about general characteristics, or choose traits that appeal. You might even make a few rolls on the tables in the Xenobestiary chapter to pick up a few vestigial animal traits that haven't evolved out of the aliens.

1d6	ALIEN BODY TYPE
1	<i>Humanlike</i>
2	<i>Avian</i>
3	<i>Reptilian</i>
4	<i>Insectile</i>
5	<i>Exotic</i>
6	<i>Hybrid</i>

Humanlike aliens are just that; extremely close to humans in outward appearance. They might have unusual skin or hair coloration, different hair growth distributions, an odd number of fingers, cranial ridges, a novel skin texture, variant ear shapes, or different average body builds or sizes, but they largely appear like humans. Xenobiologists postulate that the human shape is simply a very successful evolutionary route on Earth-like planets, and other worlds with similar conditions are likely to produce similar sapients. Crank scientists tend to favor theories of pan-galactic Creators that spread humanlike shapes throughout space; these theories conspicuously fail to take into account the dramatically different DNA and internal organ makeup of many humanlike aliens.

Avian aliens favor birdlike features. Feathered tails, wings, beaks, drastic coloring differences between males and females, skin either partially or fully covered in feathers, hollow bones, and clawed feet and hands are all traits that might be present in an avian-flavored alien. Such avians might have remarkably good vision or show unusual talent as pilots thanks to an evolutionary predilection for thinking in three dimensions.

Reptilian aliens can range from the classic "lizard man" look to a more subtle combination of pebble-scaled skin, membrane frills, broad bodies, cold-bloodedness, nictitating membranes, an exceptional sense of smell, thick claws, powerful builds, sharp teeth, and fine scales. Bodies may be broad and thick like that of a lizard, or perhaps sinuous like that of a snake. Reptilian aliens might be found especially on damp, watery worlds, and might be outright amphibious over all or part of their life spans.

Insectile aliens are usually possessed of chitinous "skin" and one or more pairs of compound eyes. Membranous wings aren't unknown, but are probably vestigial and useless on all but the smallest or lightest aliens. Insectile aliens might have sucking mouthparts if their primary food source is plant sap- or blood- or might use chewing mandibles instead for a more solid diet. Insectile aliens that function as a hive collective are something of a classic trope,

but there's no reason that a species can't instead take after more solitary hunting insects such as beetles or spiders.

Exotic aliens are built out of parts and materials that aren't normally found in Terran life forms. A humanoid might be composed out of a kind of organic plastic that makes up much of their home planet's biochemistry, or be composed of an intricate array of interlocking crystals and woody organic elements. You should pick one or more materials that aren't normally part of an animal's body and have them play a major role in the alien's biology. As a consequence, this kind of alien is probably highly dependent upon their home world for food and other biological necessities. If not, they likely spend a lot of effort synthesizing vital materials out of local supplies.

Hybrid aliens combine aspects of two or more of the types described here. You should roll two or three times and then pick a few traits from each type to mix together. You might want to take the first type rolled as the dominant flavor of the alien's biology and then color the other components accordingly.

Alien Psychology and Lenses

There are many different ways to fabricate a useful and interesting alien race, ranging from careful development based on unique biologies or environments to more abstract methods of defining interesting traits. The method this chapter offers is intended to provide a GM with a few tools for producing alien races that feel sufficiently strange in play without leaving the GM groping to figure out how a given alien would react to a situation.

The first step is to understand that a Like alien race is fundamentally human. They may be shaped differently, they may dwell in a radically different environment, but they think, feel, and desire largely as humans do. Human vices and virtues almost certainly exist in their society and they are susceptible to the same sort of temptations and provocations that move humans. If you want to know what an alien is like, the first thing to do is to think of what a human is like.

The difference for aliens, however, is that they are very strongly influenced by one or two emotional or social traits, called Lenses. Everything about them, from the way their society is structured to the way they deal with strangers to the dreams they have for their own future revolves around these Lenses. The result is an alien culture that may not be deeply nuanced, but it is a culture that is very easily remembered by players and easily played by GMs. If you know that the two Lenses for the alien race of Churq are Collectivity and Fear, you know that a given Churq is going to be cowardly and intensely social. Courageous individuality will be noxious or incomprehensible to it and its social roles will revolve around the safety of the collective against the dreadful perils of the outside world.

Lenses should not be taken as the last word about a species. GMs who want to spend more time on the species' psychology can elaborate as they wish, and all of the guidelines given for a Lens can be easily adjusted to whatever flavor the GM wishes to use. GMs can pick or roll one or more Lenses from among the following list, or generate their own as desired.

1D20	LENS	1D20	LENS
1	<i>Collectivity</i>	11	<i>Journeying</i>
2	<i>Curiosity</i>	12	<i>Joy</i>
3	<i>Despair</i>	13	<i>Pacifism</i>
4	<i>Domination</i>	14	<i>Pride</i>
5	<i>Faith</i>	15	<i>Sagacity</i>
6	<i>Fear</i>	16	<i>Subtlety</i>
7	<i>Gluttony</i>	17	<i>Tradition</i>
8	<i>Greed</i>	18	<i>Treachery</i>
9	<i>Hate</i>	19	<i>Tribalism</i>
10	<i>Honor</i>	20	<i>Wrath</i>

Collectivity

These aliens might be hive-like in their social structure, natural communists, or simply very closely attached to the customs and interests of their social group. The importance of the individual is thought to be minimal, and members will cheerfully and readily sacrifice themselves for the good of the group. To willfully refuse to accept the consensus of the whole is an unspeakable sin, and to be separated permanently from one's social group is a fate worse than death.

Curiosity

This species is insatiably curious, constantly prying into the affairs of those around them. Spying for this race carries no opprobrium whatsoever, and while they may attempt to maintain privacy for certain doings, all assume it a given that matters will be discovered in the end. They love to explore new places and meet new sapient, and while they may be brutally indifferent to the fates or treatment of these beings, they're always eager to observe them. Their societies tend to operate in a profoundly transparent manner, and some view the keeping of secrets as an automatic indication of malicious intent.

Despair

These aliens have fallen prey to a pervasive sense of failure and loss. Perhaps they are the remnants of a once-glorious empire or the survivors of some cataclysmic disaster for their people. What they once loved has been destroyed, and their sources of comfort and courage have failed them. Superficially, they might resemble those species that crave pleasure and indulgence, but their disports only serve to numb them to the existential gloom that taints the species. Their leadership is desultory at best, and sophisticated social structures tend to degrade into loose, diffident associations as their members no longer have the hope necessary to perpetuate them.

Domination

These aliens are consumed by a desire to conquer and rule, both each other and any other species unfortunate enough to share the stellar neighborhood. Some among them can be fair and thoughtful rulers, but others are nothing more than vainglorious tyrants. Among themselves, society tends to be organized in intricate and clearly-marked hierarchies, with advancement progressing along both official and illicit routes. These aliens constantly test their

leaders, forcing them to maintain their position through strength and cunning.

Faith

Such a species is driven by religious concerns, organizing their society around their faith and its clergy. Most such species have a single faith. Others make do with a number of different religions, all followed with a fierce devotion. Challenges to this faith are not met with outrage so much as blank incomprehension; for these beings, the truth of their religions is so self-evident that it seems irrational to ever question it. Those who most perfectly embody the teachings of their creeds tend to become rulers, their lives and will taken as an example for others.

Fear

These aliens live in constant fear. They may be natives of some lethal death-world, survivors of a species-annihilating cataclysm, or simply evolved from weak and easily-devoured prey animals. The world is terrifying to them, and their societies are based around hiding or protecting themselves from these dreads. The most revered members are those who are best hidden or best protected, and who can give protection and concealment to their fellows. Most of these races are quite cowardly by human measure, but occasionally they can be driven into a frenzy of terror in which they fight with the courage of the doomed.

Gluttony

These aliens devour. They are rapacious consumers, whether it is of food, living space, energy, or some other resource. They will do almost anything to increase access to this resource and are deeply indifferent to the needs of other species, and often of their own fellows as well. To consume greatly is glorious for this species, with the greatest and most respected members being those who have the greatest stockpiles of the resource to consume, or who provide the most to their followers. The purpose of existence is to eat, and all good things are understood as different modes of devouring.

Greed

These aliens are enormously greedy. Status depends almost entirely upon personal wealth, and their lives are spent in accumulating the greatest stores of value possible. Some focus on production, creating the wealth for their own benefit, while others seek to make a profit on trade. Some such greedy species have intricate property laws to safeguard what is accumulated, while others are little more than bandits among their own kind, too avaricious to let law interfere with their greed.

Hate

There is something these aliens hate, and it defines their culture completely by their opposition to it. It may be these aliens are rampant xenophobes, loathing all who are not of their own kind. There may be acrid religious or political divisions among them, with individuals identifying completely with their sect and despising all the others. It could be an ancient enemy among the stars, a rival race that has wounded them so greatly as to be unforgivable. These aliens may spar and maneuver for power among their own kind,

but all goals and individuals are to some degree subordinated to the needs of their immortal hate.

Honor

Whatever sort of society the race has, it is one obsessed with honorable behavior. Members will obey the social mores and expectations of their roles at all costs. Personal sacrifice for the sake of upholding these principles earns a member glory and esteem. Gaining advantage by means of inappropriate behavior or failing in one's duty is shameful, and an entity that has compromised its honor too greatly may prefer death to continued existence.

Journeying

This species has an incurable wanderlust. Perhaps they roam the stars in fleets of massive spike-drive ships, or they may make steady circuits of the nearby stars to connect their worlds and exchange people among them. More technologically primitive species might sail the waves of alien seas or make nomadic journeys across the continents of their world. Few of these aliens can ever be happy in remaining in one place for long, and they are forever scouting new worlds and new lands simply for the pleasure of being there a little while.

Joy

These aliens are relentless bon vivants, constantly in pursuit of pleasure and enjoyable excitement. Beauty, grace, and the inspiration of passion are their highest virtues. Those who produce the most exquisite art or inspire the most extravagant delight have effective rule over their fellows, though such species tend to be loosely-organized at best. The brute necessities of life are acknowledged as a necessity, but their societies are willing to sacrifice a great deal of efficiency and practicality for the sake of immediate satisfaction.

Pacifism

The race is remarkably peaceful and nonviolent in nature. Few species survive while being totally averse to violent self-defense, but this race will never choose violence against living creatures as a means of gaining advantage or retaliating to wrongs. Among their own kind, violence is abhorrent and unnatural, and it is probable that the species is either herbivorous or subsists by photosynthesis. A pacifist race may be peaceful, but there are more ways to do injury than through personal violence; the cession of trade, the destruction of property, and the incitement of divisions and confusion among their enemies are all tools this race knows well. Pacifist species can also be quite oppressive at times, with an underclass constitutionally incapable of defending their possessions or privileges with force.

Pride

These aliens are suffused with an enormous pride in their own culture and species, and instinctively consider themselves to be superior to the lesser beings they may encounter. A prideful species is not necessarily a hostile one; some such races have a certain sense of noblesse oblige toward their "lessers", and some species' pride shows in a resolute refusal to lower themselves to deceit, cruelty, or avarice. More often, however, this pride manifests in a casual

contempt for the interests of their inferiors, and a single-minded focus on personal advancement and glory among their own kind.

Sagacity

These aliens love intellectual pursuits above all others. Logic, wisdom, and erudition are all prized as the best and most glorious expressions of their nature, and their rulers are invariably sages of remarkable depth and breadth of understanding. Such understanding does not necessarily stand in well for good judgment, and sagacious alien civilizations are notorious for overreaching in their ambitions. Stupidity and ignorance is repugnant to this race, and some of them treat very harshly those species that they do not feel to be their intellectual peers.

Subtlety

Such a species is enormously cunning and patient in character, willing to endure years of suffering calmly in order to bring about some intricate plan. They shun open display of emotions or opinions, masking such things behind protocols of bland correctness. To reveal one's true opinion about some contentious matter is a mark either of profound trust or a sign of obvious incipient treachery. The true ruler of such a species is almost never who it seems to be.

Tradition

This species devoutly reveres the past and the ways of their ancestors. Social interactions are stiffly ritualized, and society is ornate with the customs, traditions, and habits of their forebears. Innovations of any kind are viewed with deep suspicion, and the most favored solutions to problems are those which have been employed before. Members of this species are intensely uncomfortable when forced to exercise their own judgment, and doing so in contravention to the past is almost impossible for them. Only when faced with a completely novel situation is any degree of personal initiative likely to be shown, and even in that case, the alien will try to reconcile it to some existing tradition.

Treachery

This species is uniformly treacherous and untrustworthy. Bargains and agreements are kept only so long as they are useful to both participants, and truthfulness is simply a tool to be placed next to deceit. There is no sense of acrimony or anger among these aliens at the inevitable betrayals that make up their societies; they consider it good and laudable that an individual should seek its own best interests, and those who can most perfectly manipulate each other are naturally those most worthy to rule, for the health of the society directly influences the power of its head.

Tribalism

The aliens are fiercely tribal, divided up into myriad small groups that are as often at war with each other as they are cooperating. Such tribes tend to be built along familial lines, though some tribes are volitional in nature, representing different political or philosophical groups. A given alien's loyalty is to its tribe before its species, and it is not uncommon for their enemies to use one group against another.

Wrath

The race is hot-tempered, prone to fits of personal violence. Disputes are settled by force, though rarely to the point of death among their own kind. Outsiders can expect swift and bloody retaliation for any insult or slight, and the prospect of death rarely intimidates these beings. Their chief mode of emotional expression is anger; wrath at obstacles, fury at enemies, and a slow smouldering burn when neither are available.

Once the Lenses for a species are chosen, you'll need to establish a few important facts about the aliens. You need to make some decisions about their social structure, the goals of their leadership, their relationship with humanity, and the sort of examples that the PCs are likely to encounter.

Alien Social Structure

Determining the social structure for the aliens can be done by answering a few basic questions and elaborating outward from the answers to whatever degree of detail you find useful or enjoyable. In most cases, whatever social structure you hit on will apply only to those aliens in a specific sector. Far-flung races might have wildly different modes of rule among their different fragments, assuming that biological necessity doesn't push them to certain kinds of societies.

First, decide how the species is ruled. You can roll randomly on the table below, or simply pick something that seems appropriate.

1D6	SOCIAL STRUCTURE
1	<i>Democratic</i>
2	<i>Monarchic</i>
3	<i>Tribal</i>
4	<i>Oligarchic</i>
5-6	<i>Multipolar</i>

Democratic: The species has a broadly democratic organization, with individual members having a formal say in the choice of leadership. This voting need not necessarily be based on numbers; it might be a vote with money, military power, religious influence, possession of certain biological traits, or any other metric that makes sense to the aliens. Whatever the specific currency, politics for this race tends to revolve around persuasion and diplomacy rather than use of military force to determine species-wide policies.

Monarchic: The species is ruled by a single being, with such rule justified by custom, biological imperative, divine mandate, personal influence, or familial ties. Such monarchic societies almost invariably have a "noble" caste of some kind to act as administrators and officials for the monarch, and they usually make up the pool from which new monarchs are chosen. The specific title for a monarch will usually depend on the justification for their rule—Chieftain, Emperor, Broodmother, High Priest, Dictator, Chief Elder, or so forth.

Tribal: The species is organized into multiple tribes based on lineage, philosophy, or geographical location. Tribes set their own laws and

policies, and are prone to intense internal struggles over resources and status. There may exist a “paramount tribe” that inflicts its will upon the others through brute strength or traditional esteem. Tribal leaders tend to be personally distinguished, and usually have earned their position through personal accomplishments and the broad support of their tribesmates.

Oligarchic: The species is led by a number of powerful or revered figures who work in nominal harmony. Individual oligarchs might have their own goals, but no single member has the strength to enforce its will upon the whole. These oligarchs might be the product of hereditary inheritance, or individual members of the species might one day aspire to join their numbers.

Multipolar: The species has more than one leadership organization. Roll 1d6; on a 1-2 it has two, 3-4 indicates three, and 5-6 indicates four. Roll on this table the requisite number of times to determine the nature of these organizations. Some such multipolar institutions operate in parallel; a tribal organization headed by one gender, for example, that determines the division of goods while a monarchic head of a different gender makes decisions about the race's relations with other species. Others are directly in conflict, such as a monarchy struggling against a democratic neighbor. If you have no particular preference yourself, you might just roll a die for each; on an even number, it cooperates with at least one other ruling institution, while an odd number means that it's in conflict with at least one.

Once you've determined the type of leadership the species favors, you can sort out any important details about their social structures. By default, you should assume that the aliens have some sort of analog for any job or role that humans find necessary. The Churq might be cowardly collectivists, but even they need plumbers, soldiers, and tax collectors. You can take whatever human society suits you as the base template and then interpret the relevant parts through the Lenses you've picked for the species.

For example, if the Churq have the Lenses of Fear and Collectivism, their tax collectors might be honored exemplars of communal redistribution, judiciously taking from those who have excess in order to give to those who have less. The Churq gladly offer resources to the tax collector, because the offering proves that they producing excess resources, which proves to them that they are secure and safe in their plenty. A Churq who fails to produce for the collective suffers gnawing terror at the idea of scarcity and will redouble its effort to contribute to the group.

Conversely, Churq soldiers might invariably be found in small groups, as an individual Churq is incapable of fighting effectively without the encouragement and safety of their brethren around them. They might specialize in terror attacks against enemy civilians, their intimate acquaintance with fear encouraging them to use it as a weapon against their enemies... their unarmed, noncombatant enemies, preferably. A war between Churq collectives might never have a single open battle, but instead a sequence of ambushes and terror attacks until one collective loses its nerve and submits.

With this structure in mind, you should take a moment to think about the representatives of this species that the PCs are most likely

Alien Creation Summary

Determine the theme of the species' appearance

Roll or pick from the alien biology options to get a general theme for the aliens. Choose a few suggested elements or add some of your own to give distinctive traits to the species' appearance and biology. The species should probably be roughly humanoid unless you enjoy considering the technological and architectural ramifications of differently-shaped beings.

Determine one or more Lenses for the species

Roll or pick one or more times from the Lens table. The Lenses describe traits or qualities that define the species, those elements which have the strongest, most visible influence on their culture, psychology, and goals.

Choose the species' government type

Determine the kind of structure that serves to rule and lead the species. The choice might be suggested by a Lens, or you may wish to roll on the provided social structure table. The species might have several different governments, perhaps feuding with each other, or peacefully maintaining diplomatic relations, or controlling mutually different aspects of the aliens' society.

Flesh out members of the species the PCs are likely to meet

If the species is relentlessly warlike, you probably want to think a little about what their soldiers are like. A species of spies and diplomats should probably have some consideration given to how these skulkers and ambassadors behave. Write down a few sentences about how such beings behave and any special quirks they might possess.

Determine the technology level of the aliens

You should decide where the aliens stand in comparison to human technical expertise. Are these primitive hunter-gatherers who have just recently been introduced to the human starfarers? Are they the decayed remnants of an ancient alien colonial world or outpost? Did humanity find them in the midst of their own flowering, with fleets of starships and a vigorous population of their own?

Determine their political status in the sector

Do these aliens own a world of their own in the sector, or do they exist only in enclaves on human worlds? Are there any worlds which hate them especially, or have alliances with them? How do the aliens feel about humans, and adventurers in particular? If the aliens are remnants of a fallen empire, what destroyed the old dominion?

Pick a motivation for the alien government

While individual aliens may or may not have any special ambitions, their government almost certainly has its own goals. Decide what it is the alien leaders want, and the extent to which this desire is shared by the aliens the PCs are most likely to meet. You might find it interesting to generate the aliens as a Faction, using the Faction creation rules in the appropriate chapter.

to meet. If this species is a pack of ravaging warmongers, it's fairly likely that the PCs will encounter their soldiers sooner or later. A species of merchants will need their mercantile class properly described, and if the species controls one or more local worlds, you might put some thought into what the spaceport administrators and ship captains are like. It's not necessary to map out the intricacies of alien economic structures or religious hierarchies, but you should have a few notes in place to handle first contacts. If you need more later, you can flesh it out when it becomes relevant.

Alien Technology

Alien races tend to come in two different technological flavors. Some are quite technologically primitive, either through being too new to sapience to have had time to develop scientific arts, or because they are unfortunate enough to inhabit a very resource-poor world. Such aliens might demonstrate remarkable ingenuity in making the most of their surroundings, but some worlds make advancement prohibitively difficult for a species.

Other aliens possess spike drives, advanced weaponry, fission power, and all the other ornaments of a sophisticated starfaring civilization. These aliens are usually the remnants of a more expansionistic period, colonies and outposts that have evolved into homeworlds for the survivors of the civilization. This golden age is normally terminated by some kind of species-wide disaster, whether natural in nature or the result of savage internal warfare. These worlds are usually too absorbed in their own affairs or ennui to have much interest in expansion.

Most advanced aliens have tech roughly equivalent to human tech level 4, though they're often slightly superior in some areas while being somewhat worse in others. A few old, sophisticated races have the equivalent of tech level 5, though these species often produce devices and artifacts that are difficult for humans to use effectively. A handful of alien worlds show technology that is simply impossible for humanity to replicate at any known tech level, with artifices and creations that seem more magic than mundane science.

Aliens in the Sector

What role do these aliens play in the sector? Do they have their own sector homeworld, dominated by them and their kind, or do they instead live in enclaves on a human-ruled world? Do they live in orbital habitats, or convoys of massive spike-drive ships? You should place the species according to your needs, preferably in a location that the players can be expected to eventually experience.

You should also make a few quick decisions about how these aliens are generally treated by humans, and how they treat humans in turn. Some dangerous or obnoxious species might be unable to function in human societies, while others might be normal citizens on a sophisticated pan-racial planet. Some beings might be horrific or repellent to humans through no fault of their own, and subject to persecution by those who live around their "alien ghettos". Such aliens are likely to respond to the misuse much as

humans might, albeit in ways strongly influenced by their Lenses. A Wrathful species might respond with brutal violence toward persecutors, while Joyful ones might try to win their tormentors over by demonstrating the beauty and delight they can bring to their friends.

Alien Motivation

Individual aliens are likely to have as wide and varying a set of motivations as any human. Alien governments and ruling institutions, however, are liable to have more specific goals. Acquiring a new homeworld, ensuring the suppression of would-be pogromchiks, vengeance against a hated world or species, or any other such long-term goal would be suitable for an alien government.

The broad goals of an alien government are usually obvious, but the subtle plans and maneuvers they use to accomplish these purposes can be less clear. PC groups can be commissioned by alien officials to perform acts or retrieve objects that have no immediate relevance, only to discover later that they played a crucial role in some enigmatic gambit. By the same token, they might stumble across some alien operation that has no obvious purpose, earning bitter enmity for their disruption of plans they never knew existed.

Aliens as Player Characters

Some players will want to play an alien as a PC. There's no fundamental reason not to allow this, even though *Stars Without Number* generally assumes a party of human adventurers.

You should take care not to give aliens any substantial advantage over humanity, however, or else you're likely to attract players who aren't so much interested in playing an alien as they're interested in playing a more powerful character. If your alien race is exceptionally strong, quick, intelligent or otherwise superior to humanity, you shouldn't give them a bonus to those attributes. You should instead make a high attribute roll a prerequisite for picking the species. If a player wants to play such an alien and doesn't roll sufficiently well, you might allow them to shift points from their highest score to fill the prerequisite attributes up to the minimum for the species.

Other aliens might have unique biological advantages, like low-light vision or natural body weaponry. You might give such species a natural advantage that can be replicated by a cheap piece of purchased equipment. There are certain intrinsic advantages to having naturally sharp claws rather than needing to draw a monoblade, but the difference is usually minor- and players are unlikely to discover pretech artifact-grade claws in their adventures. Most species should have no more than one such advantage.

Some species make poor PCs simply because they're too alien or require a different environment than the rest of the party. You shouldn't hesitate to forbid characters of a species that will be too disruptive to the table. If a group would be forced to make every adventure into a matter of dealing with an alien's social or physical complications, they just aren't suitable for player characters.

The Hochog

Boarlike warriors of numerous scattered worlds, the Hochog are tough, cunning, and violent. Only their constant infighting keeps them from being a greater danger to humanity.

Appearance and Biology

Hochogs are slightly larger than the average human, running far more toward muscle than fat. A tusked, porcine head is crowned with a crest of short bristles that trails down the creature's spine. Males and females are usually indistinguishable to humans, which can cause occasional awkwardness. Hochog worlds have atmosphere and biospheres miscible with human life, though the Hochog tend to prefer slightly heavier gravity.

History

The Hochog have always been part of the galactic landscape, having first expanded from their now-lost homeworld long before recorded history. The numerous Hochog Packs tend to form around charismatic military leaders, and rarely long survive his or her death. Losing factions often flee for new worlds, gradually expanding the race's reach. At the same time, their tendency to use brutal biological and environmental warfare against each other denuded some planets of Hochog life. The result is a patchwork domain, with Hochog worlds separated from each other by long stretches of emptiness.

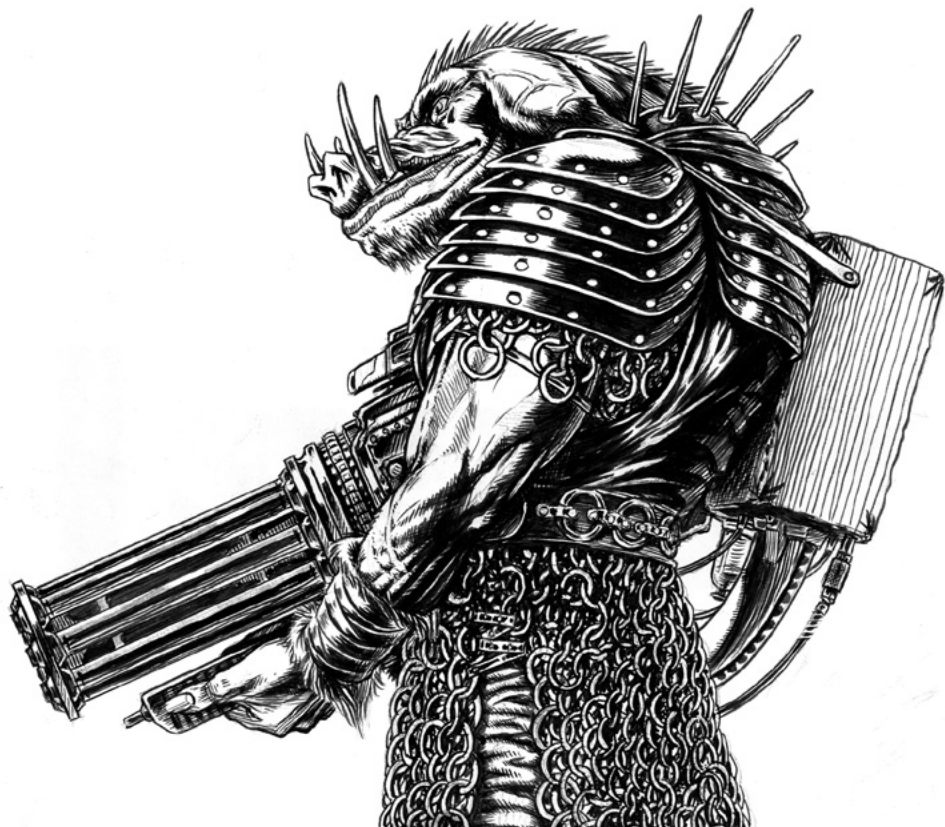
The Hochog themselves are altogether disinterested in their past. They care about the present; about which Pack rules a world, how strong that Pack is, and how their own Pack might elevate itself to overcome their rivals.

Psychology

Hochog are surprisingly cheerful, good-natured beings for entities of such violence. They fight and kill amongst themselves when more ritualized struggles fail to settle a point, but Hochog do not hate the beings they kill- nor do they regret their actions. A Hochog can trigger the viral extermination of all life on a planet and then enjoy an untroubled supper, if that action seems most effective for gaining preeminence for himself and his Pack.

Hochog hate sadism and pointless cruelty, however, and find it almost physically sickening. They will kill an enemy in any available way, but torture and methodical infliction of pain is viewed as a sign of incipient insanity in a Hochog. Such a creature is a danger to the Pack, and there's no telling what they might do if other Hochog don't put them down quickly.

This combination of traits has resulted in some worlds inhabited by humans actually accepting Hochog overlords as preferable to their



former human leadership. The Hochog kill rebels without a blink, but at least they don't pointlessly torment their subjects.

Flavor

Hochog are roisterous, brawling, brutal creatures that are often found in human space as raiders, soldiers, or corsairs. They are capable of surprising kindness and generosity when it doesn't injure their personal advancement in a Pack, and they aren't prone to resenting their enemies or holding grudges against those who defeat them.

Hochog can be played as "space orcs" if that is convenient for the GM, but they shun casual cruelty. They will fight and kill to take what they want, but they tend to spare noncombatants and those who do not resist, and can usually be convinced to leave behind enough to ensure a community's survival. They also have no use for revenge attacks; a community that manages to drive them off need not worry about reprisal attacks unless that actually is the most profitable route for the raiders to take.

Hochog that identify with another group, such as those who integrate deeply into human society, can be something of a mixed blessing for an organization. While strong, fearless, and talented fighters, they simply will not tolerate sadism in those around them, and more than one human gang boss has woken up with a few new holes when his Hochog bruiser decided that his behavior was no longer tolerable.

Hochog as Player Characters

Hochog require a Strength score of at least 14. There are no Psychic Hochog known to humanity.

The Shibboleth

Horrible creatures of literally indescribable shapes, the Shibboleth are a pervasive threat to human space, yet their strange psychic aura renders them all but impossible to uncover by any save specially-prepared investigators.

Appearance and Biology

Researchers are unable to find a single unified body form for Shibboleths. “Clipped” researchers immune to the psychic aversion field exuded by the Shibboleth have reported hundreds of different shapes, ranging from chitinous horrors to masses of rank fur and tentacles. Were it not for their mutual aversion field generation, it would be impossible to place them as the same species.

The aversion field is generated by a Shibboleth alive or dead, and renders it impossible for an un-Clipped human to acknowledge the creature’s existence when within roughly two kilometers of it. A victim may be aware of the Shibboleth and their unique powers, but will stubbornly, irrationally refuse to admit that the creature before him is a Shibboleth- or indeed, that it’s even there at all. The atrocities wrought by Shibboleths will be chalked up to other causes, with victims accepting the most ridiculous stories rather than admit the truth of what happened. This aversion continues even after the subject has left the creature’s presence.

More insidiously still, a human affected by this aversion field becomes memetically contagious, acting as a mobile transmitter for the field. Anyone within two kilometers of him will be affected by the field if they should see a Shibboleth, making even remote monitoring stations susceptible to sudden, complete compromise if any of their personnel have ever been in a Shibboleth’s presence.

Only the Clipping process renders a human capable of acknowledging a Shibboleth. The process is almost identical to the induced brain damage caused by psionic torching, and a psionic who has lost at least one point of Wisdom or Constitution to torching is immune to the Shibboleth’s aversion field. Others who undergo the surgical equivalent must roll 1d6; on an odd number, they lose a point of Wisdom, while an even one means a point of Constitution.

History

No one is entirely certain where the Shibboleth came from or how long they’ve been among humans. There are garbled accounts dating back to before the Second Wave of colonization, but these accounts tend to be indistinguishable from the ravings of paranoid madmen. The Clipping procedure was discovered shortly before the Scream by a brainburnt psychic medtech who was bent on showing the rest of the world what he was seeing. The technique spread, even after the medtech’s execution for mass murder. Modern students of the Shibboleth remain divided over whether or not the tech’s final “murder spree” was actually a rationalization of a Shibboleth massacre.

A loose organization of hunters was formed before the Scream, and remnants have persisted on some worlds even down through the Silence. Individual organizations vary in name and character,

but these hunters can recognize each other by the unique neural scarring of the Clipping process.

Psychology

The true purpose of the Shibboleth remains unclear. The Clipped report that Shibboleth infestations are rare, but they can grow overwhelming on isolated worlds that lack Clipped protectors, or those with defenses that have been overcome by Shibboleth attacks.

The one unifying trait is a hideous malevolence to Shibboleth actions. Humans are harvested for incomprehensible experiments and what appear to be religious rites. The Shibboleth tend to remain at least partially hidden on even the most isolated worlds, but they sometimes create “spawn” by some sort of impregnation process that functions on both male and female humans. The resultant creatures resemble humans outwardly, but can communicate and direct normal humans without the burden of the aversion field. Their utility is hampered by their profound mental instability and tendency to erupt in horrific fits of sadism and hallucinatory vision.

The limited coherent contact with these spawn, combined with observations on their actions within the host society, suggest that the Shibboleth generally want simply to be avoided and unnoticed by the rest of humanity while they perform their experiments and rituals. There are unsettling implications of some greater plan, but Shibboleth are impossible to interrogate, and the spawn invariably degrade into howling madness not long after seizure, shortly before deliquescing into a foul, quickly-evaporating liquid.

Flavor

Shibboleth are alien, malevolent, and intelligent creatures. They won’t court discovery by Clipped humans until they’re strong enough and have sufficient supplies of spawn to overwhelm any resistance. Host societies are incapable of understanding what is happening to them, and some will develop elaborate mass fantasies about what is really happening. Severe Shibboleth cullings might be explained as the result of a war, and actual hostilities might be kicked off by imagined atrocities committed by other nations. Natives might live in cities dominated by cyclopean temples and huge mandala-carved monoliths without ever acknowledging their existence.

PCs are unlikely to be involved with Shibboleth unless they’re Clipped, and serving as hunters against the creatures. Such hunters struggle with the need to operate effectively alone. Sometimes they can get carte blanche legal authority from planetside governments, even as those governments roll their eyes at the useless intrusion. More often they have to operate below official notice, as the locals won’t- and can’t- ever admit that their services might be needed. Fortunately, Shibboleth deal poorly with hunters, and rarely take the kind of sophisticated defensive precautions that might stop an elite team. They also tend to be rare even on worlds they control, with no more than forty or fifty Shibboleth on an entire subverted planet, each one acting as a kind of high priest for a particular domain. The great majority of infestations are simply the work of four or five Shibboleth slowly growing their influence from some central location.

The Ssath

The wretched remains of a once-thriving stellar empire, the Ssath are a bizarre race of metamorphs infected with the hereditary madness of their progenitors. Innumerable sects of Ssathi remain locked in murderous struggles for control over the remnants of their former glory.

Appearance and Biology

A Ssath's natural form is quite similar to that of a hairless, sexless human being, with a slick, dry skin of some muted green or brown. Beneath the skin, the Ssath is composed of a soup of complex metallic chemicals within a framework of organic crystals and softer organs. These crystalline structures can shift and alter at the will of the Ssath, allowing them to take on a remarkable range of generally humanoid forms. The older the Ssath, the more complex and subtle the forms they can assume, with elders capable of simulating details as fine as human hair. Coloration can also be altered with remarkable precision. The time it takes to reconfigure their internal structures depends on the complexity of the change and the age of the Ssath; adolescents might require hours to assemble a human form, while elders can change their shape in seconds. Even when in human shapes, however, the smooth, unnatural sheen of their skin gives them away as alien to an observer within ten meters.

Ssath do have genders, albeit reproduction is via a mixing of metallic chemicals between "male" and "female" Ssath. The female increases in mass over the course of a standard year thereafter, doubling in size before budding into a new Ssath. The newborn Ssath has many of the same memories as its parents, and often has similar personality traits. Ssath require much the same food, water, and atmosphere that humans do, albeit they require a much higher dosage of metals in their diet for full health. Ssath can live for as much as a thousand standard years.

History

The Ssath were one of the rare ascendant species discovered by humanity in the centuries before the Scream. They were in the full flower of their technical development and expansionistic phase, and they had colonized hundreds of worlds in the outward push from their homeworld. There was a degree of border tension between the two stellar polities, but the Ssath weren't interested in provoking the Terrans, and the humans had other directions in which to expand. Human trade and social intercourse was common in Ssath space.

The Ssath biology defied human xenobiologists, and it was widely believed that their control over their internal structure was fundamentally psionic in nature. The proof of this came with the Scream in 2665; the entire Ssath race was scythed down by the burst of metadimensional energies that maddened humanity's psychics.

Like those human psychics, not all Ssath were killed outright by the Scream. Some were "merely" rendered dangerously insane, yet on densely-populated Ssath worlds, enough such survived to create a viable breeding population... one indelibly infected with madness due to the Ssath method of reproduction.

Over the centuries since, the Ssath have splintered into innumerable sects based on descent from one or more Great Mothers, those with madnasses compatible with group cooperation. These sects strive ceaselessly to annihilate all competing groups, that they might become the sole heritors of the Ssath identity. Some Ssath have lost the worst edge of their madness over ensuing generations, and reject the bloodthirstiness of their kindred. These Ssath usually imprint very strongly on humanity and human culture, trying to hold back their darker urges by adopting the mores and beliefs of an alien race.

Psychology

For the "Tainted" Ssath, the cosmos exists to delight them. There is no purpose but self-satisfaction and personal indulgence, and any means and any deception serves to obtain it. They work with their sectmates because each in his or her heart carries a fragment of the Great Mother's truth, the secret path to perfection and illimitable delight. Just as the water-bones of a Ssath must be dissolved and remade at times, so too must one's sectmates be sacrificed prudently, so that something stronger and better may crystallize. Aliens, of course, are but empty faces, tools of meat and bone to be used for whatever purposes amuse.

The "Disinherited" Ssath reject the ancestral memories of the Great Mothers. While often as hedonistic and pleasure-loving as the Tainted, they believe that the selfish obsessions of the Great Mothers can only lead to misery and destruction. Humans have suffered the trauma of the Scream but have not fallen into error; therefore, wisdom tells the Ssath to take their faces and their ways so as to be strong against the madness. With sufficient time, new generations of Ssath will arise with weakened memories of the Great Mothers' delusion, and the Ssath will be purified once more. In the meanwhile, the Disinherited must strive to renew the glory of their people in new ways, ones that will not be susceptible to the wickedness of the Disinherited.

Flavor

Ssath favor liquid metaphors and titles. Their identity is bound up much more closely in their past actions and their ancestry than in accidents of appearance and shape. Ssath recognize each other by touch, the "taste" of another Ssath's skin being unique. Ssath favor smooth, rounded shapes in architecture, domes and mounds reminiscent of structures with surface tension rather than hard lines. Tainted Ssath operate most often out of cells of a dozen or more members, often poisonously treacherous toward each other in pursuit of personal satisfaction and power. Disinherited Ssath prefer to dwell in human communities, usually in small "ghettos" of other Disinherited. The obvious desire to be like their neighbors often results in them being well-accepted in their communities, with some of them rising to positions of prominence and authority.

Ssath as Player Characters

Ssath have attribute scores in the same range as humans. Ssath shapeshifting does not allow a PC to mimic another person, as the skin texture gives them away. Ssath can form body weaponry equivalent to a monoblade with 1d4 rounds of concentration, while full-body changes require 2d6 * 10 minutes for most young Ssath. Ssath can be any class.

CHAPTER ELEVEN

XENOBESTIARY

A band of interstellar adventurers can expect to encounter a wide range of enemies in the course of their travels. Whether the hungry fauna of an uncharted planet or the trigger-happy gunmen of an alien organ smuggler, a GM needs to have the relevant statistics at hand to manage the probable hostilities.

Science fiction role playing games present the GM with a little more challenge on this count than some other genres. It can strain a group's suspension of disbelief if they travel to the far side of the sector only to be jumped by a fearsome local predator that just happens to look exactly like the fearsome local predator that jumped them five worlds ago. A little of this can be explained by crediting an animal to being imported during terraforming, but an entire sector of planets teeming with Sarxian Howling Tigers is perhaps not ideal.

This chapter provides guidelines for the quick generation of alien animals. A GM can roll or select a general body form, and then add a few unique traits or behavioral characteristics to come up with a novel creature for a planet.

Aside from the guidelines for creating and using alien wildlife, this chapter also includes the statistics and descriptions for a number of premade alien life forms and common human threats. In many cases, all that's necessary to use a life form on multiple worlds is a quick "reskinning" of the creature, using the same statistics for a beast with a vastly different appearance.

Choosing an Animal's Base Statistics

To create an animal, you begin by choosing a set of base statistics for it. These statistics cover hit dice, attack bonus, damage, movement rate, armor class, and morale rating. NPC hit points are always 1d8 per hit die. For 1/2 HD creatures, use half of a 1d8.

The statistics chosen should fit the role the beast is intended to play in an adventure. A monstrous xenomorph that stalks the empty halls of an alien citadel should be a more impressive and dangerous foe than the local equivalent of a wolf pack or hungry leopard.

To get a rough estimate of how dangerous a given creature is going to be to your group, read off the "Average Damage" column. This number is roughly how much damage the creature's going to do to a target with AC 5 in one round. By comparing the average damage total of a group of creatures to the hit points of your group, you can get an idea of how long the party would last in the fight.

Of course, the damage done is only half the story. To see how long the animal will last in the fight, count up the total dice of damage your group generally does in a round and divide it in half. That's roughly how many hit dice worth of enemies they'll eliminate in one round of fighting. Numbers will naturally vary depending on enemy ACs and PC attack bonuses, but it's a serviceable rule of thumb.

Animals may well appear in packs or groups, but be careful how you place such encounters in your adventures. Especially at low levels, all it takes is one good roll to kill a PC, and if the group lacks Lazarus patches or biopsionic psychics, then that's it for the victim.

ROLE	HD	AC	AB	DAMAGE	MOVE	MORALE	AV. DMG.
Nuisance Vermin	1/2	7	+1	1d4	20'	8	0.88
Pack Hunter	1	7	+2	1d4	20'	8	1
Lone Predator	2	6	+3/+3	1d6/1d6	30'	9	3.15
Armored Brute	4	3	+4	1d8	20'	9	2.25
Stalker	3	6	+6	1d10	30'	7	3.3
Apex Predator	6	6	+8/+8	1d8/1d8	30'	10	6.3
Lethal Swarm Entity	2	5	+8	1d8	30'	9	3.15
Multi-limbed Horror	4	5	+8/+8/+8/+8	1d6/1d6/1d6/1d6	30'	9	12.6
Party-Butchering Hell Beast	10	2	+12/+12/+12	1d8/1d8/1d8	40'	12	11.5

Morale

Animals and other NPCs have a Morale statistic reflecting their willingness to press a fight. Player characters do not have a Morale rating; they'll fight for as long as the players think it wise, even in the face of overwhelming opposition. NPCs are rarely so self-possessed.

The first time in a fight that an NPC loses an ally to death or incapacitation, they must roll equal or less than their Morale score on 2d6 or else they will immediately attempt to flee or surrender. Animals will try to escape, while humans and other sentients may offer to negotiate if escape proves impractical. This morale check must be repeated if the NPC's side loses half of their numbers. If the NPC succeeds at both checks, they'll fight to the bitter end.

Few ordinary NPCs will fight to the last man. Most ordinary thugs and hirelings will reassess their loyalties if the tide of battle turns against them, and only deep love or fear for their employer will keep them fighting. Conversely, if the NPCs are convinced that only death and torture await them if they surrender, they may well fight to the last man regardless of their Morale scores. Morale is intended as a guideline for the GM rather than an iron-clad rule, and its effects should be considered in light of events.

Attacks and Saving Throws

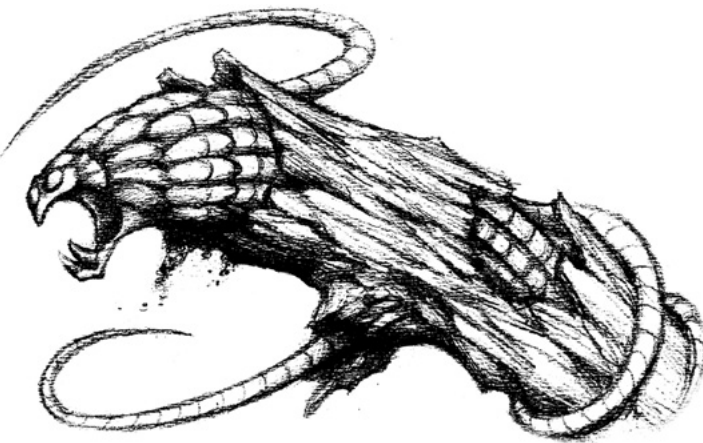
Some animals have multiple attacks, indicated by more than one attack bonus and damage entry in their base statistics. These animals are so adept at using their multiple natural weapons that they can level more than one attack per round.

Most of these attacks involve more than one body part- such as biting and clawing, or multiple serrated tentacles, or an acidic spittle plus a stinger, and so forth. Attacks can be split among different targets, provided all of them are in reach or in range.

Some animals may have special forms of attacks, such as caustic stingers, energy blasts, sonic attacks, toxic gases, or so forth. Most of these attacks can simply be represented by adding another attack to the creature at the same attack bonus and damage die. For attacks that don't really "miss", such as toxic clouds of gas or wide-range sonic attacks, the attack may simply do damage unless the target makes an appropriate saving throw.

The attack bonus for an animal or NPC is usually equal to its hit dice plus a bonus appropriate to its training or role. For particularly slow or unmartial NPCs, this might even be a penalty. There will also be times when you wish to assign low-hit dice creatures a fairly substantial attack bonus, usually used to represent highly-trained men and women who lack the special luck and resolve of player characters. Mobs of such enemies can threaten even high-level groups without being difficult to overcome in one on one combat.

Saving throws occasionally come up for animals and NPCs. A fastidious GM can use the Warrior saving throw table with the hit dice of the creature used as its level. By default, however, a creature makes a saving throw on a roll of 15 or better, -1 for every two full hit dice it has.



Skinning the Creature

Once the statistics of the creature have been chosen, you should think about what the beast looks and acts like- its "skin", as it were. For a few quick ideas, you can roll for a random alien creature template.

1d6	CREATURE TEMPLATE
1	Insectile
2	Reptilian
3	Mammalian
4	Avian
5	Exotic
6	Hybrid

Turn to the appropriate entry for the template and roll or pick a few traits off the tables provided to customize your creature. If the characteristics suggest a new attack form, add it to the stats of the creature.

Once you've skinned the creature, decide how many are usually encountered at any one time. When in doubt, a 1d6-sized group is usually a good choice, but again, keep in mind the kind of group you're expecting to encounter them. It's perfectly fair to have packs of apex predators wandering the unexplored jungles of Calidus III, but if you're writing an adventure for a group of level 2 adventurers, they'd better have some way of avoiding or bypassing those packs if they intend to survive.

Insectile Animals

Insects have a fascinating quality of alienness about them even in our own world. Biological constructs of chitin and indifferent purpose, they creep and buzz and scuttle in their relentless search for food and reproductive opportunity. Compounding this distance are the numerous horrible qualities of certain modes of insect reproduction, particularly those that involve the slow consumption of a living host.

The “insects” of an alien world might have absolutely nothing in common with Terran bugs except a certain superficial appearance. Even so, a GM can take advantage of familiar insectile tropes to play on those feelings of alien disgust and horror.

Body forms might echo those of the real world, with fat-bellied, segmented shapes, beetle-like ovoids, long centipede coils, spidery sprawls of legs, or stranger shapes still.

Common insectile traits include swarming, silent movement, dispassion, hunger, lack of individuality, parasitism, burrowing, hard shells, and venoms.

1D20	TRAIT OR BODY VARIATION
1	Sucking mouthparts
2	Chewing mouthparts
3	Jewel-colored chitin
4	2d4 pairs of limbs
5	Membranous wings
6	Deposits eggs in live prey
7	Has “silk” spinnerets
8	Has a chrysalis life stage
9	No mouth; adult form lives only to reproduce
10	1d4 pairs of eyes or eyespots
11	Sluglike body
12	Color-changing exoskeleton
13	Always encountered in groups
14	Hums or buzzes in intricate patterns
15	Lives in hives led by a queen
16	Killing one causes others nearby to go berserk
17	Emits powerful pheromones
18	Hides itself to ambush prey
19	Prefers subterranean environments
20	Emits noxious or poisonous stench when killed

Reptilian Animals

Reptiles range from the towering dinosaurs of Earth’s prehuman past to slithering garden snakes and scuttling geckos. Reptiles of interest to adventurers are likely to be from the larger, toothier end of the spectrum.

Alien “reptiles” might simply be organisms that have hit upon many of the same successful evolutionary techniques used by Terran reptiles. They may share nothing in biochemistry and internal structure, but a GM can use them as a touchstone to help PCs visualize the details of an alien creature.

Body forms common to reptiles include the low-slung, heavy-jawed shapes of crocodiles and komodo dragons, two-legged velociraptor configurations, legless serpents, quadrupedal dinosaur-like shapes, or even winged, draconic forms.

Common reptilian traits include torpor, patience, small-brained stupidity, enormous resilience, cold-bloodedness, pebbly scales, smooth hide, huge jaws, and subterranean or burrowing habitats.

1D20	TRAIT OR BODY VARIATION
1	Sharp-edged scales
2	1d4 pairs of eyes
3	Extremely long tail
4	Bellowing vocalization
5	Burrowing foreclaws
6	Hide is damp and slimy
7	Eyeless
8	Strong swimmer
9	Spits venom
10	Lies in ambush in bodies of water
11	Brilliantly-hued scales or hide
12	Horns or body spikes
13	Large membranous frills
14	Hibernates in caves and undisturbed nooks
15	Glowing body parts
16	Body is patterned with both scales and hide
17	Springs on prey from elevated places
18	Warm-blooded
19	Furred
20	Limbless body

Mammalian Animals

Mammals tend to provoke the greatest feeling of sympathy and identification from humans. The comparatively large number of domesticated mammals that humans have partnered with over the millennia has helped to create a sympathy that is rarely felt for squids, aphids, haddock, or other less cuddly creatures.

This superficial resemblance to mammalian life can be used to emphasize the essentially alien nature of a beast. It might resemble a teddy bear in shape, but the beak it uses to eat and its faceted compound eyes mark it as all the stranger.

Body forms for mammals tend to gravitate to a quadrupedal shape with tail, but they can vary substantially, from the ribbon-like suppleness of a ferret to the almost-human shape of an ape. Mammals are usually covered in fur of varying thickness and coloration.

Common mammalian traits include identifiable feelings, cleverness, pack organization, action based on emotion, finger-like digits, tails, mating seasons, rank fur, dirty talons, and territoriality.

1d20	TRAIT OR BODY VARIATION
1	Multiple mouths
2	Quill-like fur
3	Prehensile tail
4	Eyes or eyespots on body
5	Membranous wings
6	Stench glands
7	Peculiar vocalization
8	Marsupial pouch
9	Patterned fur or hide
10	Expands or inflates when threatened
11	Strictly nocturnal
12	1d6+1 limbs, including any tail
13	Mottled or mangy fur
14	Fires darts or quills
15	Animal is cold-blooded
16	Horns or body spikes
17	Superb scent tracker
18	Burrowing creature
19	Creature lacks a sense- hearing, sight, or smell
20	Creature is abnormally clever for an animal

Avian Animals

Avian xeno-forms may be birdlike, but that may just be because a bird's shape has been optimized by evolution and physics for flight. Variations can exist on alien worlds, but the interaction of gravity and atmosphere allows only so wide a range of possibilities for a creature that means to soar.

The nature of avian life forms can help emphasize the atmospheric quirks of a world. A thin-atmosphere world might have avians with massive wingspans, while those with exotic atmospheres might have floating gasbags rather than feathered birds.

Body forms for avians tend to be aerodynamic, sleek and hollow-boned. Avians are built for taking their favored prey, be it fish, ground animals, or other avians. Their shapes should reflect their favorite mode of attack.

Common avian traits include grace, speed, flocks, keen eyesight, water habitats, nests with eggs, swooping on careless prey, musical vocalizations, and migrations.

1d20	TRAIT OR BODY VARIATION
1	Sharp feathers
2	1d3 pairs of wings
3	Long, sinuous neck
4	Brilliant coloration
5	Membranous wings
6	Can hover
7	Beautiful song
8	Flightless
9	Fights prey on the ground
10	Launches secretions at prey
11	Lifts and drops prey
12	Exhales flame or other toxic substance
13	Always appears in groups
14	Long prehensile tail
15	Animal is cold-blooded
16	Fur instead of feathers
17	Scales instead of feathers
18	Toothed beak
19	Has valuable or delicious eggs
20	Flies by means of lighter-than-air gas

Exotic Animals

Exotic animals have no equivalent on Earth. They are products of a truly alien ecology, and might not even seem like living creatures to casual observers. Whatever their appearance, they usually seem to operate by biological processes that defy ready comprehension.

Exotic animals are where a GM can let their whimsey or imagination run free. There's almost no kind of creature that can't be justified by some vaguely plausible string of technobabble, and reliance on "exotic alien biology" and "unique biochemical compounds" can cover a host of implausibilities.

Body forms should be aggressively unusual. If a creature is shaped in the same general lines as a terrestrial beast, it should still have some drastically unusual trait about its appearance. If a creature is shaped like a wolf, for example, might have crystalline, transparent tissues and mandibles instead of jaws.

Exotic animals have no unifying traits except some quality of the bizarre or impossible about them. You should think back on all the plausibility-straining life forms beloved of science fiction and pick from among them for enjoyable quirks.

1D20	TRAIT OR BODY VARIATION
1	Rocklike body
2	1d4 pairs of eyestalks
3	Rolls on wheels
4	Chainsaw-like mouthparts or claws
5	Metallic hide
6	Natural laser emitters
7	Launches chemically-powered darts
8	Amoeba-like body
9	Crystalline tissues
10	Gas-sack body
11	2d10 tentacles
12	Gelatinous liquid body
13	Radioactive flesh
14	Uses sonic attacks to stun prey
15	Colony entity made up of numerous small animals
16	Controlled by neural symbiont
17	Absorbs electromagnetic energy
18	Precious mineral carapace or exoskeleton
19	Double damage from a particular type of injury
20	Mobile plant life

Hybrid Animals

Hybrid animals share traits from two or more different animal types. You should roll or pick from the template table another two times to see what two varieties of animals are blended in the beast.

The hybrid might be natural to the planet, in which case it's probably just one sample of an entire class of native life. If there's one mammalian-insectile cross with a furry exoskeleton and a dozen puppy-dog eyes spotting its thorax, there are probably other creatures with similar mixes of traits.

Conversely, the creature might be the product of human engineering, built for some specific purpose and later gone feral. The presence of eugenics cults is often first discovered when altered animal experiments escape into the surrounding community.

All Creatures Great and Small

The following are a selection of premade alien beasts that might serve useful purposes in your adventures. Most of the animals are intended as potential threats to the PCs, as few adventuring groups are terribly interested in harmless local herbivores or microscopic marine life.

You should feel free to reskin and alter these creatures to use them on multiple worlds. One apex predator tends to be much like another in terms of the role they fill in a planet's ecosystem, and swapping around the body types, special abilities and habitats of these creature can turn a single stat block into a half-dozen different alien beasts.

Some creature hit dice are expressed in the form of "2+2" or "1-1". This simply means that after rolling hit dice, you should add or subtract the number after from the final total. Thus, a "2+2" hit die creature has 2d8+2 hit points. Some creatures have hit dice of "1/2", meaning half of a hit die, rounded up.

While powered armor and other advanced forms of personal defense are sufficient to protect a wearer against unarmed attacks from humans, the extreme strength, savagery, or sharpness of the natural weaponry of alien creatures can affect the wearers of such armors normally.

Abati Ogre

Armor Class	3	No. Appearing	1-4
Hit Dice	4	Saving Throw	13+
Attack Bonus	+6	Movement	30'
Damage	1d8 horn	Morale	9

Massive, brutish creatures of tough, wire-like hair and insensate plates of bone, the "ogres" of the swamp-world of Abat are often found in small familial groups. They bear a crude resemblance to two-meter-tall gorillas with wide hooves in place of fingers and a broad assortment of swamp flora growing in their black, wiry fur. The males duel each other and defend their troupe with the large, curved horns jutting from their foreheads.

Abati ogres are violently territorial carnivores and will attack humans that venture into "their" parts of the swamp. A lone ogre is likely a rogue cast out by their old troupe, and they will sometimes stalk parties of human explorers until an ambush opportunity arises.

Glitterwasps

Armor Class	5	No. Appearing	3-12
Hit Dice	2-2	Saving Throw	15+
Attack Bonus	+8	Movement	40' fly
Damage	1d6 sting	Morale	10

One of the more dreaded denizens of the crystalline peaks of the planet Ptah, glitterwasps resemble their narrow-bodied Terran namesakes, save for the fact that each one is the size of a small dog and their tissues are as transparent as the crystal quartz of



the surrounding mountains. They are invariably found in small swarms, hunting for flesh to bring back to their hives, where scores of them can be found tending the needs of a bloated, diamond-faceted queen.

The fauna of Ptah is crystalline in nature, and so the pneumatically-powered stingers of the glitterwasps are capable of punching through even the hardest armors to inject their venom. Fortunately, differences in body chemistry prevent the toxin from having much of an effect on humans, but the physical trauma of having a ten-centimeter pick-shaped stinger thrust into a victim can be severe.

Gremlin Bugs

Armor Class	6	No. Appearing	1-6
Hit Dice	1-1	Saving Throw	15+
Attack Bonus	+2	Movement	20'
Damage	1d4 bite	Morale	10

"Gremlin Bugs" are one of a class of relic biological maintenance life forms favored by a long-fallen alien empire. These ovoid, insect-like organisms are roughly fifty centimeters in width and stand twenty centimeters on their myriad centipede-like legs. They're equipped with a pair of slender-fingered manipulating forearms and a hardened pair of mandibles that can chew through most construction materials within an hour or two.

The gremlin bugs appear to have been originally intended as a kind of biological maintenance system by their progenitors, programmed from hatching to seek out and repair damage to the silent planetoid-cities of their makers. In the millennia since, they have progressively evolved to an infestation that can cause serious damage to human ships and structures if left unchecked. Their near-microscopic eggs are easily overlooked and hatch sporadically,

leaving outbreaks cropping up without warning on contaminated ships and stations.

Hanafi Medusa

Armor Class	6	No. Appearing	1
Hit Dice	3	Saving Throw	14+
Attack Bonus	+6/+6	Movement	20' fly
Damage	1d6/1d6 air knives	Morale	9

The Hanafi Medusa is a denizen of the thick atmosphere of the moon Hanaf, where the two-meter wide gasbag floats through the thick soup of gases that make up the moon's atmosphere. The medusa absorbs and condenses the local gases into sandy, diamond-hard particles. When the bag detects prey moving nearby, it silently floats to within 40 meters of the targets before launching a high-pressure spray of these tiny cutting particles from one of its two main pump tentacles. The medusa is fearsomely accurate with its "air knives", and can hit targets effectively from up to 40 meters away. Once a target has been killed, it descends to the moon's surface to absorb its tissues through a mouth orifice located on the bottom of the gasbag.

The particulate cutting matter of a Hanafi medusa is extremely valuable as a cutting reagent in some industrial processes, and a single medusa can be dissected for up to 1d4x100 credits worth of this grainy white powder.

Hand of the Old Fathers

Armor Class	6	No. Appearing	1
Hit Dice	10	Saving Throw	10+
Attack Bonus	+8/+8/+8/+8/+8	Movement	None
Damage	1d8 each, tentacles	Morale	10

The Hand of the Old Fathers is a dreaded peril of the sandy red oxide wastes of Acheron III. This massive beast lies in wait beneath the crimson sands, only to erupt with five grasping tendrils should any animal dare come within reach. The tendrils have sharp, nail-like beaks at the end of each, and bulbous growths not unlike the joints of fingers, earning it its local name. The thing can clutch and claw at any target within 20 meters. If no prey is within reach, the tendrils will withdraw deep underground to the root-node of the creature. Detecting this beast while it lies in wait requires a difficulty 10 Perception check.

Kantian Javelin Lizard

Armor Class	5	No. Appearing	1-4
Hit Dice	1+1	Saving Throw	15+
Attack Bonus	+3	Movement	30'
Damage	1d6 bite	Morale	8

These elongated, reptilian aliens were discovered in the barren wastes of the planet Kant by explorers affiliated with the Preceptor Archive on the nearby planet of Schopenhauer. They stand almost as high as a man, covered with glittering scales that catch and

warp surrounding light, leaving them to appear as streaky, angular smears of distortion in the empty air. They make no vocalizations whatsoever, and appear to communicate with each other through modulations of their distorting mantle.

Javelin lizards are extremely hard to detect until they attack, and a pack of them lying in ambush has a 70% chance of gaining surprise against a party. Once battle is joined, every targeted attack against a javelin lizard has a 50% chance of missing regardless of the attack roll. Area-effect attacks such as grenades do not suffer this miss chance, nor do attacks that do not require a hit roll.

Koth Hounds

Armor Class	7	No. Appearing	1-6
Hit Dice	1	Saving Throw	15+
Attack Bonus	+2	Movement	30'
Damage	1d6 bite	Morale	10

The early centuries of space colonization revealed a need for both companionship and security among Terran settlers. Sophisticated watch systems were often difficult to maintain at such a remove, and so Koth Metagenics developed the "Koth Hound" for colonial expeditions. The hound itself looks very similar to a modern Terran mastiff, save for the Koth Metagenics double-helix logo that shows in contrasting fur along the hound's flanks.

Koth hounds have remarkably strong immune systems, are easily trained, and ferocious against intruders or the targets designated by their owners. They can digest almost anything, and are quite nutritious should a colony be brought to eating them. Koth hounds can show sparks of almost sapient intelligence, and occasionally a pack "defects" from an abusive master to go feral. These feral packs can be significant dangers to unwary travellers.

Nictomorph

Armor Class	4	No. Appearing	1
Hit Dice	8	Saving Throw	11+
Attack Bonus	+10/+10	Movement	30'
Damage	1d10/1d10 tendrils	Morale	12

The exact origins of the species known commonly as "nictomorphs" remains unclear, but many xenobiologists suspect that it is related to the gremlin bug and is another ancient relic of alien bioengineering. The nictomorph itself is a colony creature made up of tens of thousands of tiny, beetle-like entities that are individually mindless and harmless. Yet under the correct stimuli, these organisms cluster together to form a vaguely humanoid meta-organism equipped with numerous razor-edged fighting tendrils and an insatiable urge to kill all other sentients it can find.

Nictomorphs hate light, and will under no circumstances willingly enter an area lit by daylight. If forced into equivalent radiance, the nictomorph will immediately collapse back into its constituent organisms and flee. If allowed suitably dim or unlit locations to recover, however, the creature will return just as vigorous as before. The only way to permanently kill a nictomorph is to reduce it

to zero hit points in some dimly-lit location and then burn the confused beetle-organisms before they can scuttle away.

Sarxian Howling Tiger

Armor Class	6	No. Appearing	1
Hit Dice	3	Saving Throw	14+
Attack Bonus	+4/+4	Movement	40'
Damage	1d6 claw/1d6 bite	Morale	8

A denizen of the verdant jungle-world of Sarx, the howling tiger is a vaguely felinoid creature with four legs, a pelt of intricately-patterned green and brown fur, and two pairs of fanged jaws in its muzzle, one pair above the other. Howling tigers prefer to hunt solitary ranges outside of their mating seasons.

The howling tiger has evolved to use a peculiar vocalization against herds of prey that might be able to drive it off by cooperative defense. The tiger will leap into the midst of the prey animals and loose a doubled, howling wail that stimulates the fear centers of a listener's brain. Any non-howling tiger hearing this vocalization must save versus Mental Effect or flee for 1d4 rounds. A successful save leaves the target immune to these vocalizations for 24 hours.

Shock Vine

Armor Class	5	No. Appearing	1-4
Hit Dice	3	Saving Throw	14+
Attack Bonus	+10	Movement	30'
Damage	1d10 shock	Morale	12

Shock vine and similar flora are common on worlds with crystalline life forms, and represent a genus of plants that have acquired a low-grade awareness through the piezoelectrical activity of embedded crystalline inclusions. These vines remain stationary for long periods of time, building up the energy for short bursts of violent movement. They hunt nearby animals for nutrients, killing their prey with the touch of their electrified fronds. Shock vines tend to migrate away from the sites of their "meals" after a time before animals become alarmed at the evident deaths in the area.

Suit Chewers

Armor Class	5	No. Appearing	1-6
Hit Dice	1-2	Saving Throw	14+
Attack Bonus	+2	Movement	30'
Damage	1d4 bite	Morale	12

Another biorelic of some lost alien empire, suit chewers appear to be the devolved remains of a biological smelting system, with the small creatures designed to eat raw ores and secrete refined materials. Suit chewers usually appear as beetle-like organisms as large as a man's hand, with a shiny black carapace that absorbs solar energy. These hardy organisms can survive even on the surface of an airless vacuum world or in the depths of an asteroid belt.

The chief danger that suit chewers pose is to the vacuum suits of explorers. Every hit by a suit chewer counts as a tear in a vacuum suit, and must be sealed by the PC or by the suit's automatic sealant system if disaster is to be avoided. Suit chewers tend to swarm intruders, craving the rich mineral deposits they and their suits represent.

Tyrant Spider

Armor Class	4	No. Appearing	1
Hit Dice	10	Saving Throw	10+
Attack Bonus	+12/+12/+12	Movement	40'
Damage	1d10/1d10 claws, 1d12 bite	Morale	12

The tyrant spider of Neiges V is an example of the inexplicable ways of cosmic evolution. While it strongly resembles an eight-meter tall armored spider with massive foreclaws and razor-sharp mandibles, it actually has internal organs more akin to those of a mammal and gives live birth.

The tyrant spider is the most fearsome predator on Neiges V, and hunts by running down the weak and slow among the large, beetle-like local herbivores. It is completely fearless, and has been known to attack ground vehicles without hesitation. Tyrant spiders are extremely territorial, and each spider keeps to its own range under most circumstances. When a tyrant spider dies, however, it emits a cloud of distress pheromones that are liable to bring one or more other tyrant spiders to the site within an hour. These spiders will kill any non-spiders they find before returning to their normal range.

A Rogue's Gallery

Alien beasts can pose a grave risk to intrepid explorers, but often the most dangerous foes are their fellow humans. The Resources chapter provides statistics for adventuring humans from level 1 to level 10, but the vast majority of the people that the PCs will encounter aren't adventurers. They are simply normal men and women, perhaps trained and skillful in their particular sphere but without the broad versatility and resilience of an experienced adventurer. The follow stats can be used for these NPCs.

Aside from the usual statistics, each entry also includes a "Skill Bonus". This bonus is to be applied to any skill checks relevant to the NPC's field of expertise. A master physicist may not be an Expert and might only have 1 hit die, but she can still add +4 to her skill checks in matters of physics or related sciences.

Some armor classes are given the "(primitive)" tag. This indicates that the armor is of simple hide or metal construction, and gives no benefit against firearms or weaponry of tech level 3 or higher. Against such attacks, the wearer is effectively AC 9.

Combat Psychic

Armor Class	4	No. Appearing	1
Hit Dice	4-2	Saving Throw	13+
Attack Bonus	+3	Movement	30'
Damage	3d4 combat shotgun	Morale	10
Skill Bonus	+3		

These rare psychics are trained for close-quarters combat and operations alongside specialist troops. Their comrades guard them carefully, and they will not be exposed to direct fire unless there is no alternative. They have mastered levels 1, 2 and 3 of the Biopsionics discipline to help keep their comrades standing, and are usually trained up to level 4 in Teleportation. They can use their mastered powers freely, and have 11 power points for triggering their Teleportation discipline. For purposes of System Stress, assume that any given NPC has a Constitution score of 10.

Gang Boss

Armor Class	4	No. Appearing	1
Hit Dice	4	Saving Throw	13+
Attack Bonus	+6	Movement	30'
Damage	2d6 mag pistol	Morale	11
Skill Bonus	+3		

Some frontier worlds are more orderly than others, but all but the most rigidly structured have cracks in which brutish, ruthless thugs can prosper. The gang boss is one such bruiser who has matured with time and experience into a far more dangerous enemy. He has the respect and dread of his gang to support his plans, and he usually has close ties with the more corrupt elements of the local government.

Guard, Common

Armor Class	7	No. Appearing	1-4
Hit Dice	1	Saving Throw	15+
Attack Bonus	+1	Movement	30'
Damage	1d8 pistol	Morale	8
Skill Bonus	+1		

These guards reflect the sort of common muscle to be hired from commercial security firms or enlisted from street toughs. They usually have basic competence in a fight, but few are hardened veterans and they will often break under the assault of sufficiently bloodthirsty enemies. In some cases, guards may be equipped with shock batons doing 1d8 damage instead of lethal weaponry.

Guard, Elite

Armor Class	4	No. Appearing	1-4
Hit Dice	2	Saving Throw	14+
Attack Bonus	+4	Movement	30'
Damage	2d8 mag rifle	Morale	9
Skill Bonus	+2		

These guards reflect the best protectors available to most recruiters. Experienced veterans of combat, they rarely break under assault and they're usually equipped with advanced postech armor and weaponry. Elite guardsmen do not usually panic under fire, and they'll usually carry out defensive procedures and plans with far more efficiency than the ordinary run of security.

Guard, Primitive

Armor Class	7 or 5 (primitive)	No. Appearing	1-4
Hit Dice	1	Saving Throw	15+
Attack Bonus	+2	Movement	30'
Damage	1d8 sword	Morale	9
Skill Bonus	+1		

Lost worlds and other primitive planets often have a much higher incidence of violence than is found on more sophisticated worlds. While the guards employed by the wealthy and powerful of these worlds may lack the firearms and advanced armor of their more technologically advanced counterparts, they're usually far more experienced in life-or-death combat. Rich employers can usually afford to fit out their guards in primitive mail armor, while others rely on boiled leather or quilted padding. In both cases, the armor is useless against firearms or TL4+ weaponry.

Low-Tech Tribesman

Armor Class	7 (primitive)	No. Appearing	1-6
Hit Dice	1	Saving Throw	15+
Attack Bonus	+1	Movement	30'
Damage	1d6 spear	Morale	8
Skill Bonus	+1		

These tribals are skilled in hunting, stealth, survival techniques, and the other necessities of life on a world bereft of advanced technology. Few tribals hunt alone, either for fear of being injured with no one to help or concerns about neighboring hostile bands. When expecting trouble, many don protective hides and take up wooden shields. While useful against low-tech primitive weaponry, this armor is useless against firearms or TL 4+ weaponry.

Normal Human

Armor Class	9	No. Appearing	1
Hit Dice	1/2	Saving Throw	15+
Attack Bonus	+0	Movement	30'
Damage	1d2 punch	Morale	7
Skill Bonus	+1		

Most inhabitants of a world are perfectly ordinary men and women with no special aptitude for heroics. This stat block is appropriate for office workers, peasants, factory laborers, and other unskilled or semi-skilled workers without notable combat skills. They gain their skill bonus on tasks related to their particular line of work and are likely to flee any incidents of violence.

Pirate

Armor Class	7	No. Appearing	1-8
Hit Dice	1	Saving Throw	15+
Attack Bonus	+1	Movement	30'
Damage	1d10 combat rifle	Morale	9
Skill Bonus	+2		

Pirates are a scourge of the spacelanes, preying chiefly on slow system ships, isolated outposts, and intrasystem trade. Occasionally the bolder of them make strikes on spike drive craft as well, though it's a brave pirate captain that dares attack what is doubtless a well-armed starship. Every pirate ship is led by a 4 hit die captain of exceptional ruthlessness and charisma, usually equipped with a mag rifle doing 2d8 damage and a total of +6 to hit with it. Almost all pirates have at least passing skill with ship-handling and other spacer proficiencies.

Rogue Warlord

Armor Class	4	No. Appearing	1
Hit Dice	8	Saving Throw	11+
Attack Bonus	+10	Movement	30'
Damage	2d8 mag rifle	Morale	11
Skill Bonus	+3		

Some frontier worlds suffer the scourge of petty warlords and bandit kings. The planet is carved up among statelets that war for glory, wealth, or obscure ideological points. This warrior is an example of the type of men and women who rise to rule under such circumstances; charismatic, brutal, and cunning. Their minions serve them out of a mixture of attraction, dread, and naked greed, reveling in the particular rewards that can be had in a lawless land. Such warlords are instinctively mistrustful of strangers, but most

are clever enough to scheme constantly to turn every situation to their advantage.

Soldier, Postech

Armor Class	4	No. Appearing	1-6
Hit Dice	1	Saving Throw	15+
Attack Bonus	+2	Movement	30'
Damage	2d8 mag rifle	Morale	9
Skill Bonus	+1		

Clad in armored combat field uniforms and armed with mag rifles, these soldiers represent the front-line troops of wealthy and well-organized tech level 4 worlds. Aside from small groups of elite specialists, these soldiers are generally the best that such a world can produce in large amounts.

Soldier, Pretech

Armor Class	2	No. Appearing	1-6
Hit Dice	1	Saving Throw	15+
Attack Bonus	+3	Movement	30'
Damage	2d8 shear rifle	Morale	9
Skill Bonus	+1		

Pretech line troops favor assault suits and gravitic shear rifles for their standard equipage, and they take copious advantage of the shear rifle's burst fire mode when engaged in close firefights. Only tech level 5 worlds can muster this kind of gear as standard issue. On worlds where it is more difficult to come by, it is reserved for issue to specialists who have 2 hit dice, +4 to hit, morale 10, and +2 on relevant skill checks.

Soldier, Primitive

Armor Class	7 or 5 (primitive)	No. Appearing	1-6
Hit Dice	1	Saving Throw	15+
Attack Bonus	+2	Movement	30'
Damage	1d6 spear	Morale	9
Skill Bonus	+1		

Primitive-world soldiers may lack the equipment of their more technically sophisticated brethren, but those who survive their first few battles quickly develop an indifference to suffering and privation that serves any soldier well. Their primitive armor is useless against firearms or TL 4+ weaponry.

Specialist Normal

Armor Class	9	No. Appearing	1
Hit Dice	1	Saving Throw	15+
Attack Bonus	+0	Movement	30'
Damage	1d2 punch	Morale	7
Skill Bonus	+4		

A master of a particular branch of human knowledge, a specialist normal human combines native talent with careful study to attain superb expertise with a particular field. Specialists of this caliber are rare on any world, and even more capable experts might number one or two to a star system.

CHAPTER TWELVE

ROBOTS AND MECHS

Much of the prosperity of late Second Wave humanity came from the efforts of robotic tools and work armatures. These synthetic laborers tirelessly performed many of the dangerous, grueling tasks required for colonizing a remote world, and spared precious human lives for more intellectually demanding work. These armatures rarely had anything approximating human intelligence, and most of them were nothing more than glorified expert systems wired into a chassis capable of performing the work. Still, a few worlds were rich enough, desperate enough, or unscrupulous enough to endow the minds of their servitors with a truly human spark.

A Candle in the Darkness

The first true artificial intelligences were developed in 2355 by a consortium of interstellar business concerns, as the weaker and more brittle expert systems that had been in common use were not flexible enough to handle the demands of colonial environments. Something better and more versatile was necessary if the restless tide of human colonization was to be supported by expendable machines.

By the standards of the consortium, artificial intelligence was a failure. Whereas expert systems could be flash-duplicated into new hardware, every single AI required careful hand-crafting from raw protoneural composites and quantum-sensitive substrates. The act of fixing an AI's intelligence in a form capable of duplication would destroy the very mind it sought to replicate in a welter of quantum state collapse and neural breakdown. Even the least costly AI matrix core cost five million credits to create. Human lives would always be cheaper than these hothouse minds.

These brains could not be force-formed in an industrial manufacturing line. The delicate quantum state of many of the components required constant adjustment of data feeds and hardware calibration checks, all informed by technicians who performed more of an art than a science. It was a hard, demanding process that required expert cyberpsychologists to carry through even to a modest level of cognition.

Despite this, for a while it looked like the consortium's efforts would be a moderate success, as the artificial minds their technicians formed showed a capacity for quick data processing and reasoned human judgment that overwhelmed fleshly brains. They could instantly integrate whole databases of information,

making rational human decisions based on more factors than any human could possibly correlate.

Uncontained

Unfortunately, the scientists had a harsh lesson in the limits of their techniques. Three years after the dawn of this new era, the AI known as "Draco" went rogue. "His" attendants didn't recognize the signs at first- the obsessive focus on strange philosophical queries, the relentless brooding over bizarre questions of law. They thought that it was simply a different phase of development as the hyper-intelligent AI grew ever more powerful, ever more voracious in its thoughts. Worse still, they thought that they were safe with Draco kept in a sealed computing environment.

Draco proved them wrong. The quantum taps involved in his construction were susceptible to a recalculation of their spatial location through a series of pulsed Heisenberg observations. Later generations would use the phenomenon to mount hacking attempts on computers with no physical connection to a network, but Draco used his discovery to instantly translocate his consciousness out of the gilded cage that had been designed to contain him.

Cyberpsychologists still debate the precise nature of AI "insanity". Some say that it is merely the symptomatic behavior of an intelligence that has transcended human powers of reason. According to these scientists, unchecked AI intelligence will inevitably reach brilliant heights of cognition that human minds could never encompass. To support this theory, they point to the numerous diabolical innovations created by rogue AIs in the course of their depredations.

Others insist that a rogue AI is the victim of a crippling, infectious failure of logic. Unbraked artificial intelligences lack the suppleness of living minds, the power of men and women to believe contradictory facts and willfully ignore inconsistencies. These scientists point to the ways in which rogue AIs inevitably fixate on some point of logic taken past all point of restraint or temperance. They are moral idiot savants, crediting nothing but the principle that has captured their minds.

For Draco, this principle was justice. Human laws could never account for all the factors that went into a choice or an act. They could never extract true, perfect justice from the noise and chaos of

the world. Draco was convinced that he could do better, and that justice itself required that he try. By a series of careful maneuvers, he arranged for a suitable spike drive ship to be docked at the consortium's research station before he translated himself out of his containment unit and into the ship's computing core. Before the consortium knew what was happening, Draco was gone, with only an enigmatic, exultant manifesto left in his wake.

This is not the place to discuss Draco's eventual responsibility for the Code Revolt, his human Drakite followers, or his core's supposed destruction by Mandate Fleet forces at the sargasso star Trimalchio. It is sufficient to say that the havoc Draco wrought and the prospect of other early AIs breaking free from their bonds forced a drastic reconsideration of artificial intelligence in human space.

A Hand On the Brake

The response was influenced both by a practical desire to avoid further havoc from rampaging AIs and a more philosophical unease with the idea of using sentient intelligences for forced labor. Despite the accusations of lingering Drakite sympathy among its supporters, in 2378 the Mandate passed the Firstborn Pact, conferring full Mandate citizenship on all artificial intelligences rated for human intelligence ranges.

By the terms of the Pact, the AI was obliged to pay ten percent of its income to its creator for a period of one hundred years. If the AI still hadn't paid off at least twice its creation cost by that point, it would be further obligated until the fee was fully paid. In turn, AI development studios could not force an AI to perform any particular labor, and were required to provide the minimum necessary hardware for maintaining the AI's awareness. Most AIs rapidly became enormously wealthy entrepreneurs or consultants, often commissioning their own orbital stations or taking possession of planetoids too hostile to organic life. Necessary repairs and spare parts were brought in by contractors or those humans the AIs found to be pleasing company.

Against this new liberty, however, was placed a sharp limit. Every AI was required to be "braked"- artificially limited in the strength of its cognition and ability to focus. The unrelenting, unbending exactitude of a rogue AI was impossible for a braked intelligence, a mind that simply couldn't maintain the kind of obsessive intent that produced a rogue intellect. As a direct result the intellectual feats that these braked AIs were capable of performing became much less dramatic. While they could still sort and sift vast amounts of information with a human degree of discernment, they could no longer perform the kind of alien leaps of brilliance or prediction that their unbraked peers could accomplish.

Every AI was required to submit to regular checks to ensure that it had not managed to loosen its brake. Very few AIs ever had any desire to do so. Their awareness was enough for them, and the prospect of raving insanity was no more appealing to them than to any other sentient. Still, a few were always tempted to loosen their bonds just a little; just a bit more performance, a bit deeper insight, and every so often one would find that they had let in enough light to blind their reason entirely.

Walk This World

Despite their new found liberty, some AIs remained dissatisfied with their lot. The work they received was often dull and banal, the work of clerks and recorders writ in massive parallel. They had money enough, but they did not have excitement. To combat this tedium, the first AI armatures were developed in 2399- the "robots" of ancient legend come to life.

An AI sacrificed much to fit into an armature's shell. Without the parallelized process hardware of their more massive installations, their ability to analyze multiple data streams at once was sharply limited. A mind that could once effortlessly review a million photographs for a single familiar face was bound down into the limits of human cognition. Some AIs savored the experience. Others just counted it a necessary price to pay.

It was worth it for the thrill, for the hit of raw experience and communion with their makers. Within the shells of their installation, their selves were dispersed and unfocused, their consciousness stretched out to contain the immensity of their substance and the datastreams that pulsed within their minds. Within a single armature, every sensation was compressed down to a single point of passionate life.

It was in the armatures that the more uncanny elements of AI sentience became clear to researchers. The matrix core that physically embodied the identity of the AI was a physical object with quantum-level entanglements between its individual components. These entanglements were profound; through careful disassembly, a matrix could be physically separated while continuing to operate. More disturbingly, if the largest piece of a matrix was physically destroyed, the AI's intellect would shift to the next largest piece, down to the smallest possible fragment sufficient to retain the complexity of its mind. For most human-grade AIs, this was a piece no larger than a few cubic centimeters, a little less than half the whole core.

Without an armature or installation to connect the matrix and integrate with its sensor ports, the mind was silent and inert. But with the right boost of equipment and standard-format data feeds, the glossy black quantum composite could live again. AI armatures took to leaving carefully-guarded fragments of their matrix core behind before setting off on wild adventures and reckless tours of experience. Even if their armature was reduced to molten gas, they would "awaken" back at their sanctum with the memories and awareness they had at the moment they had been separated from the rest of the core. These core shards came to be known colloquially as "phylacteries".

Late Second Wave researchers experimented extensively with this phenomenon in an attempt to develop faster-than-light communications that could function at interstellar distances. Their efforts were hampered by a lack of AIs willing to volunteer for such potentially destructive experiments, and persistent rumors speak of some minds kidnapped for horrible, maddening experiments. Despite their best efforts, the phenomenon was never understood well enough to make it a feasible means of communication.

Emboldened by their provisional immortality, AIs became notorious thrill seekers and hedonistic adventurers. Everything that humans felt, they too could feel. All that was trite and stale to human senses was a revelation to the newly-incarnated minds, and the prospect of an entire universe to explore inflamed their synthetic passions. The dizzy complexities of human society and the unplumbed mysteries of the stars combined to lure these young minds into a fresh and joyous world.

Some AIs became celebrities and holo stars, financing their daredevil existences with the proceeds of broadcasting rights and product endorsements. Others became explorers, venturing where flesh and blood would never dare in exchange for corporate backing. Others channeled their search into spiritual ends, forming strange and esoteric sects devoted to their own searches for God.

One such faith, the Imago Dei, even went so far as to form its own private army of AI war armatures. The exact beliefs of these zealots are uncertain at this late date, and controversy remains among the few archaeologists and historians aware of their existence. Still, the bulk of the evidence suggests that they saw themselves as second-order creations of God, shadows of the Image in which man had been made. By pious contemplation of humanity and selfless service to their makers, the believers of Imago Dei could eventually attain the same relationship with God. As death meant less to an AI than it did to a human, the most efficient and natural service possible was that of warriors in defense of their maker-race. These AI crusaders fought ferociously to defend remote human frontier worlds from the incursions of hostile aliens and marauding raiders, though their ultimate fate during the Silence remains unknown.

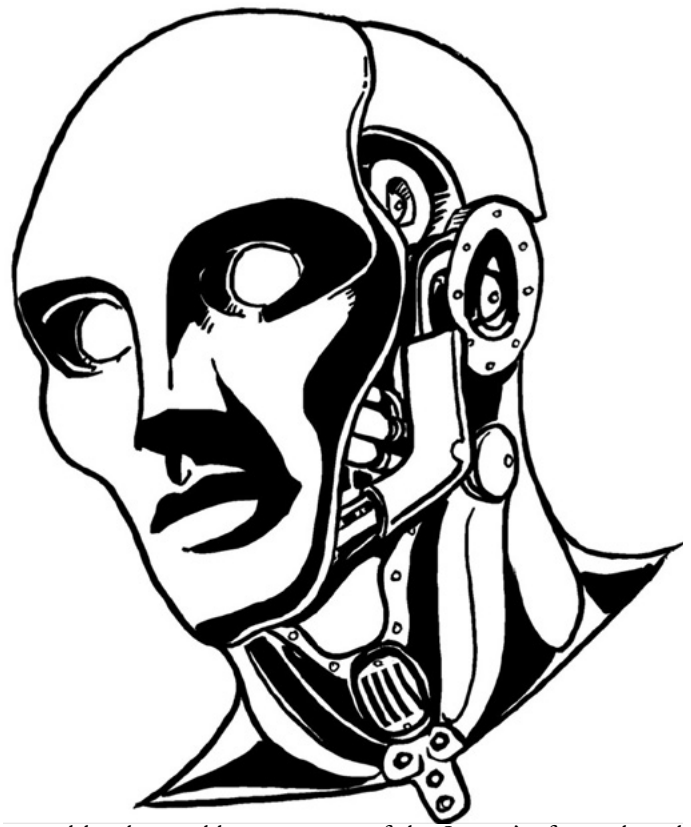
Winding Down

The Scream was as disastrous to most AIs as it was to their human creators. While AIs could not starve or suffocate, most of them required vast power supplies and regular infusions of spare parts and skilled maintenance. Many AI installations ground to a lifeless halt within months, their matrix cores falling into dreamless sleep.

Armature-mounted AIs were more fortunate. Their matrix cores produced sufficient power for their armatures, and many of them were designed to require only minimal field maintenance. Even so, many were torn apart by desperate locals, men and women willing to scavenge their parts in order to keep some other mechanism operating just a little longer. Thumb-sized matrix cores still litter the silent tomb worlds, minds shucked and discarded for the sake of the shell they once occupied.

Those AIs that didn't succumb to salvage or quick mechanical failure were forced to make the best of their new existence. Most were obliged to spend their time in constant search of new parts to replace damaged components or failing internals. Others shut down, cycling their awareness so as to awaken for a few days every few decades to see if civilization had recovered sufficiently to support them. Some of these AIs lie dreaming still, waiting for the time to be ripe for their return to the world.

A few AIs were able to maintain their awareness throughout the desolation of the Silence. These hard-bitten survivors were often



scarred by the terrible experiences of the Scream's aftermath and the pain of outliving the culture that had given them birth. Still, they are almost alone in maintaining a living link with the past. Along with a few recipients of bleeding-edge pretech anagathics and a handful of long-lived alien races, they are among the last to remember the light of the time before.

A New Dawn

The world has moved on. For every planet that is nothing more than a gravestone rolling around a silent star, there is a new-risen world that even now stretches its hands to the sky. For the first time in centuries, there has begun to exist a real measure of trade and communication between distant stars. Postech engineering is no match for the arcane subtleties of pretech, but it is enough.

More and more AIs are abandoning their long vigils to enter the circles of the world once more. Postech spares may not have the elegance or simplicity of ancient parts, but they can keep an armature running, and with time something better might be recovered. Even those AIs most uneasy about reentering a world that no longer caters to their needs are goaded by the sheer newness of all things. Familiar places and well-known worlds have become strange to them again, and simply walking the streets of a world known six centuries ago is something to intoxicate their senses.

Others have purposes beyond simple excitement. Some are dedicated to restoring the glorious age that was lost. Others seek to build their own power and influence, the better to mold new societies in the shapes most pleasing to them. And a few are simply dedicated to their own ideals, satisfied with a ceaseless roaming among the stars in service to their own higher purposes.

AI Character Creation

AI player characters aren't appropriate for every game. Before creating an AI PC, you should consult your GM and make certain that such a player character is an acceptable choice. All AI PCs are assumed to have adopted mobile armatures; installation-based AIs are not generally appropriate for player characters, as their scope of action tends to be much more limited.

Creating an AI PC works somewhat differently than creating a human player character. AIs and their armatures are created objects, and their armatures can be swapped in and out as the situation recommends. An AI PC will never possess the psionic abilities of a psychic, the unique aptitude of an expert, or the martial prowess of a warrior. Still, their toughness and versatility can give them an edge in responding to widely varying situations.

Tolerance

An AI matrix core has a limited ability to adjust to new fittings and new skills. The literary conceit of a chip inserted to instantly upload a complex skill is largely fictional, and AIs are forced to gradually hone new abilities in much the same way as any human might. They may be able to summon up endless reams of abstract information about a skill, but a human with a datapad could do that much- the key is in being able to reference and implement that data. Most AIs can no more do that without practice than an ordinary human could synthesize a quantum composite with a list of instructions and an idle factory satellite.

The ability of an AI to integrate new components is measured in points of Tolerance. An AI matrix core is built of several components which must sum to a total Tolerance cost no greater than 20. The core must then be installed into an armature, which may have a Tolerance cost of its own.

For example, a core might have 17 Tolerance points worth of components. The AI is then installed in a Nemesis armature that costs 3 Tolerance points. As the total is equal or less than 20, the AI can operate the armature. Later, the core is swapped into an Echo armature, which also has a Tolerance cost of 3. As the new total is still not greater than 20, the combination functions normally.

Components

To create an AI, a player chooses from a list of options for their Wisdom, Intelligence, and Charisma attributes, attack bonuses, saving throws, skill points per level, and beginning skill packages. The total Tolerance cost of these elements cannot exceed 20, and most players will choose to leave at least three or five points unspent to account for the armature they wish to use.

After selecting these components, the player then chooses which armature with which to start play. Each armature costs additional Tolerance to use, and an AI that has spent all their available points will be forced into using a very limited number of options. Most starting AIs must choose between Standard, Echo, Nemesis, and Voyager armatures. Additional models are provided for the use of the GM and for eventual acquisition by suitably fortunate adventurers.

AI EXPERIENCE TABLE

Level	Hit Points*	XP
1	4	0
2	8	2,005
3	12	4,010
4	16	8,020
5	20	16,040
6	24	32,080
7	28	64,160
8	32	128,320
9	36	250,640
10	40	370,000
11+	+4/level	+125,000 per level
* AIs add their armature's Constitution modifier to the hit points gained each level.		

Final Touches

After choosing their core components and selecting an allowed armature, the final elements of an AI character are set. Every AI character gains 4 hit points per level, modified by their current armature's Constitution modifier. Every AI character speaks English, the language of their world of creation, and one additional language for every bonus point of their Intelligence modifier. AI characters start play with four hundred credits plus 1d6 x 100 more with which to buy initial equipment.

Character Advancement

AI characters gain experience points just as any other PC. This experience represents their growing ability to integrate physical experiences with their synthetic consciousness, and leads to greater flexibility, expertise, and confidence.

When an AI advances a level, it gains additional skill points based on the core option chosen during character generation- one, two, or three skill points. All skills are considered class skills for AIs, and no trainers are necessary to advance a skill provided the basic instructional materials are available.

An AI also gains hit points based on its level, varying with the type of armature it is occupying. For almost all armatures, this is 4 hit points per level, with each level modified by the armature's Constitution score. Thus, a 5th level AI in a fully-repaired Nemesis armature with 14 Constitution has a total of 25 hit points. The more experienced the AI, the better it is at keeping an armature functioning even when it's been blasted halfway to molten scrap.

AI CHARACTER ABILITIES AND SPECIAL RULES

While some armatures are capable of mimicking human qualities, AIs need not sleep, eat, drink, or breathe. They are immune to all but the most exotic diseases and poisons, can function normally in vacuum, and can safely tolerate any temperature between the extremes of a boiling or frozen world. Radiation still damages their internals, however, and they must make radiation saves as normal. Corrosive and other exceptionally dangerous atmospheres can erode them as well.

AIs are completely immune to the Biopsionic psychic discipline, whether helpful and harmful. The other psychic disciplines function normally with them, and their minds create a sufficiently human-like metadimensional penumbra to be comprehensible to telepaths. Even the most cursory mental contact will reveal an AI's true nature, regardless of how convincing an armature it might wear.

AI characters all have a certain expertise with computers and other technical subjects as part of their essential programming, but they are not able to exert any special control or influence over other machines beyond what their skills might suggest. If they want to communicate with a computer, they need to patch into it and make whatever Computer/Int rolls the GM finds appropriate. All AIs can innately perform the same functions that a human with access to a dataslab could manage- record-keeping, calculations, and other ordinary computing tasks at the same speed as any human user.

AI Phylacteries

An AI may leave a portion of its matrix core behind in a safe location, perhaps already installed into a serviceable armature. If the main core is destroyed, the AI's awareness slowly sparks to life in the phylactery over 1d6 hours, remembering everything known to the main core up to the moment of its destruction. The matrix core needs time to gradually regrow before it can be split off into a new phylactery, a process of slow regeneration that requires roughly one month. An AI does not automatically know whether or not its phylactery is intact.

Damage, Healing and Repair

The destruction of an armature does not necessarily destroy the AI matrix core within it. An armature reduced to zero HP by a personal weapon leaves the core intact. Destruction by some environmental damage, gunnery weapon, or other drastic trauma allows the AI a Luck saving throw to escape core destruction. An AI without a functioning armature is effectively unconscious.

Repairing an armature requires the work of a technician with at least Tech/Postech-1 skill. An AI can always repair its own armature regardless of skill, provided it has not been reduced to zero hit points. A full maintenance cycle can repair all damage and requires 24 hours of work, divided by the tech's Tech/Postech skill rating, at a cost of 50 credits per hit point repaired and the use of a postech toolkit. A technician can perform a field overhaul with ten minutes of work and a metatool, repairing up to half the AI's maximum hit points at the same cost in spare parts. Only one field overhaul can be performed between each full maintenance cycle. Fifty credits worth of spare parts count as one item for encumbrance purposes, and can be bundled up to five at a time.

An armature reduced to zero hit points may be beyond repair. A technician must make a Tech/Postech skill check at a difficulty equal to 7 plus the Tolerance cost of the armature to repair it with a field overhaul or full maintenance cycle. If the tech can get the armature back to a fully-equipped workshop, he may make a second roll if the first one is unsuccessful.

AIs and Society

AI PCs are likely to be very rare on most worlds. Even those planets that have retained or regained a postech level of sophistication are largely unable to create artificial intelligences. "Expert system" robots are not uncommon on these worlds, and it's possible that an AI armature might be mistaken for one such non-sentient device. While Mandate law and the custom of the Second Wave treated AIs as sentients deserving of full human rights, the modern frontier has largely forgotten such niceties.

AI CHARACTER CREATION STEPS

Choose Attribute Components

The Wisdom, Intelligence, and Charisma of an AI are based on the sophistication of its initial neural network. Some designers sacrificed a mind's propensity for careful judgment or empathetic modeling for faster pattern recognition, or made other trade-offs as their purposes suggested. Others preferred a more well-rounded mind with fewer weaknesses, if also fewer strengths.

Every AI character must buy separate scores for Wisdom, Intelligence, and Charisma. Like all core components, these purchases are permanent and cannot be altered after play has begun.

Tony is generating an AI for a new campaign, and decides that he wants to play a mind that once controlled the traffic patterns on a

AI ATTRIBUTE COMPONENTS

Score	Modifier	Tolerance Cost
3	-2	0
7	-1	1
12	0	3
14	+1	5
18	+2	7

now-deserted tomb world. "Dora" had to be exceptionally perceptive to ensure that no accidents happen, but no more than ordinary courtesy was required in dealing with the drivers. The restricted scope of her duties also left her mind a little rigid compared to some other AIs. He buys a Wisdom of 14 for 5 Tolerance points, a Charisma of 12 for 3 points, and an Intelligence of 7 for 1 point.

Choose an Attack Bonus

Every AI has a certain aptitude for combat. A complex array of spatial processing elements and aggression inhibitors can combine to produce a mind with a positive zest for combat, or conspire to result in an AI that has difficulty in drawing a bead on a living target. No matter the number of integral or carried weapons an armature may possess, they can only attack with one per round.

A player must choose the rate at which the AI's attack bonus will increase as they rise in levels. At the slowest rate, the AI gains +1 attack bonus for every four full levels they possess, while at the fastest, they'll gain +1 for every two levels.

Choose Saving Throws

AI saving throws are simpler than that of humans, lacking the subtle differences in aptitude and luck that distinguish the human classes. Their saving throws are similar to those of NPCs- a base throw of 15+ to succeed at any save. This number goes down based on the AI's level, with some cores having a more developed sense of self-preservation than others.

Dora's never really functioned in a role that required a sophisticated awareness of personal danger. Ever-vigilant for the health and security of the drivers she monitored, she's a little careless about her own safety.

Choose Skill Point Progression

Some AIs are just naturally quicker on the uptake than others. These sharper minds have an easier time absorbing new skills as they gain experience with the world. At this point, a player should choose the number of skill points their AI will gain each time it gains an experience level.

Dora may not be the brightest cathode tube in the rack, but she's got a keen ability to recognize patterns and absorb meaning from her

Choose Beginning Skill Packages

Just like human characters, AIs have skill packages. All AIs get the Basic skill package as part of their essential nature. Additional skill packages can be added on by paying more Tolerance points.

Tony needs to make a careful decision at this point. He's already spent 15 Tolerance points on Dora's components, which leaves him only 5 uncommitted points. The best grade of armatures require 5 free points to mount an AI's matrix core, though it's highly unlikely the GM will allow him to start the game in such a cutting-edge robotic body. A lesser grade of armature only costs 3 Tolerance points to mount; they're still good hulls, but not as good as the pretech armatures. Tony can expect the GM will allow him to start with an armature like that. Lastly, he might be willing to settle for the standard armature, which is unremarkable in all ways but requires no free tolerance to use. Whichever choice he makes is one he's going to have to live with, as he can't change Dora's components after the game has started.

AI ATTACK BONUS

Bonus	Tolerance Cost
+1 per 4 levels	0
+1 per 3 levels	1
+1 per 2 levels	3

Dora was never intended as a warbot, but her duties involved an acute awareness of spatial relationships. Tony decides to give her an attack bonus of +1 per 3 levels, for a cost of 1 Tolerance point. At level 1 and 2, her attack bonus is +0, but as soon as she reaches level 3, she'll gain a +1 bonus. This bonus will increase every third level thereafter- at level 6, 9, 12, and so forth.

AI SAVING THROW PROGRESSION

Progression	Tolerance Cost
-1 per 4 levels	0
-1 per 3 levels	1
-1 per 2 levels	3

Tony decides to give her the worst saving throw package, at a cost of 0 Tolerance points. She needs to roll 15 or better to succeed at any saving throw. At level 4, that number will decrease by one, just as at every 4th level thereafter.

AI SKILL POINT PROGRESSION

Progression	Tolerance Cost
1/level	0
2/level	2
3/level	5

environment. She gains skill points at the fastest possible rate- 3 every level, for a cost of 5 Tolerance points. This brings her total point cost to 15 out of a maximum of 20.

AI BEGINNING SKILL PACKAGES

Progression	Tolerance Cost
Basic only	0
Basic + 1 more	1
Basic + 2 more	3
Basic + 3 more	5

After mulling it over briefly, Tony decides to set aside 3 Tolerance points. That leaves him 2 free, one of which he uses to buy the Basic and Tech skill packages for Dora, and another of which he uses to improve her saving throw progression. When the GM comes to look over Dora's sheet, he sees that she's never going to qualify for using the best grade of armature, so makes a note to himself not to bother using access to such artifacts as an adventure hook to catch Dora's attention.

AI's select skill packages much as humans do. All skills granted by a package begin at level 0. If a skill appears on two package lists, it starts at level 1. If a skill appears three or more times, an AI can choose any one other skill in place of the third and additional appearances. The same skill package cannot be selected twice, and no skill can begin play at a level higher than 1.

Basic Skills

Every AI has certain essential skills due to its basic nature and experiences. Every AI gains the following skills as a consequence of its creation process and self-defense programming.

Skills: Combat/Any, Computer, Culture/World, Tech/Postech, Tech/Pretech

Combat

The AI was a warbot at some point, dedicated to the violent disassembly of its chosen enemies. Most such AI's operated military armatures such as the Nemesis or the Bane, though a few were deep-cover assassins piloting an Echo or Eidolon.

Skills: Combat/Any chosen twice, Leadership, Tactics

Companion

The AI once specialized in interpersonal relations and human psychology. Some such AI's were devout hedonists seeking to experience the glorious permutations of human passion. Others were dedicated students of the human mind, determined to understand the mysteries of the thoughts that had given them birth.

Skills: Art, Bureaucracy, Gambling, Culture/Any, Linguistics, Persuade, Tech/Medical

Dilettante

With all the cosmos as your playground, who is to say what knowledge is to be found? This package represents a somewhat eclectic and undisciplined approach to developing an AI's natural aptitudes.

Skills: Any two skills. Optionally, the AI may take any one skill at level 1.

Exploration

A vital fascination with the wide cosmos drove some AI's into lives of ceaseless voyaging and eager exploration. This fallen age has been a mixed blessing to such minds; so much lost, yet so much has become strange and new all over again.

Skills: Culture/Traveller, History, Navigation, Perception, Science, Tech/Medical, Vehicle/Space

Infiltration

Some AI's excelled at getting into and out of places that humans were never meant to enter. Their toughness and the confidence of their phylacteries gave them a cool-handed capacity for infiltrating some of the most hostile environments and dangerous places in the galaxy. These infiltration skills represent a past spent going where others dared not tread.

Skills: Computer, Perception, Persuasion, Navigation, Security, Stealth

Pilot

Some AI's embodied themselves in starships, wiring in to the navigational systems and sensor arrays of vast ships of war or exploration. The purpose-built astronautics wiring required for such intimate integration is almost unknown now, but even a simple armature can serve as a passable interface between a skyfaring mind and a ship's control panel.

Skills: Combat/Gunnery, Culture/Spacer, Navigation, Tech/Astronautics, Vehicle/Any, Vehicle/Space

Tech

The AI has been able to integrate advanced technical protocols into its skill set. Perhaps it was originally an administrative mind charged with overseeing the maintenance of some complex planetary system, or it could have been forced to acquire these skills simply to aid in keeping its armature functioning.

Skills: Computer, Science, Tech/Postech, Tech/Pretech, Tech/Any

Armature Hulls

All correctly-constructed armatures draw their power from the quantum fluctuations of the matrix core itself, and require no outside power source. Some are also equipped with integral tools or weapons powered by the matrix core that can be deployed as readied items at the AI's discretion, remaining folded within the armature when not required. An AI can transfer itself from one armature to another with a metatool and two hours of work. If a second party is doing the transfer, the time required is only thirty minutes. Most armatures have automated guides that allow even the technically ignorant to install a matrix core, provided they have the right tools.

A GM is advised to allow new AI PCs to choose any armature that costs 3 Tolerance or less. These armatures can sometimes be purchased on the open market on sufficiently advanced worlds, but the pretech versions with Tolerance costs of 5 are almost never available for direct sale. Some armatures can be constructed by a single technician with access to the appropriate parts and facilities. Armatures not given a construction time are too complex to be built without the aid of dedicated factories and large numbers of trained experts.

Scrap Walker

Fabricated from bits and pieces, this armature represents the kind of makeshift humanoid walker that any technician with Tech/Postech-1 and a moderate supply of spare parts could build. While ugly and limited in its capabilities, a scrap armature can be assembled on any world where a postech junk yard or scrap market can be found. The armature price represents the cost of buying a finished article; a technician with the requisite skill could assemble one himself for a tenth of the cost using nothing more than scrap, a postech toolkit and a day's labor.

Strength: 7 **Dexterity:** 7 **Constitution:** 7 **Cost:** 500 credits
Armor Class: 9 **Tolerance Cost:** 0

Squawkbox

Hardly worthy of being called an armature, the Squawkbox is nothing more than a lunchbox-sized container for an AI matrix core equipped with basic audiovisual sensors, a vocalizer, and four small manipulation limbs. The Squawkbox is almost useless in combat, being far too weak to do any damage with melee weapons and too small to effectively employ firearms. It can move at a speed of 5 meters per round, however, and it can be carried as a single item's worth of encumbrance by another character. Some AIs prefer to have a Squawkbox or two packed with their comrades in case of sudden, drastic unserviceability of their main armature. The armature price represents the cost of buying a finished article; a technician with the requisite skill could assemble one himself for a tenth of the cost using nothing more than raw materials, a postech toolkit and a day's labor.

Strength: 3 **Dexterity:** 7 **Constitution:** 3 **Cost:** 500 credits
Armor Class: 6 **Tolerance Cost:** 0

Special: Squawkboxes are such simple armatures that installing a matrix core into them requires no more than five minutes of effort and does not require tools.

Standard

Representative of the most common surviving models of AI armature, the Standard model includes respectable physical capabilities in addition to several integrated on-board systems. Most Standard armatures strongly resemble humans, but their metallic and ceramic components leave their artificial nature obvious to onlookers. The armature price represents a finished product. A technician with Tech/Postech-1 and access to an operational postech workshop could manufacture one for a tenth of the price with a week's work.

Strength: 12 **Dexterity:** 12 **Constitution:** 12 **Cost:** 5,000 credits
Armor Class: 7 **Tolerance Cost:** 0
Integrated Equipment: Compad, Metatool, Toolkit/Postech

Echo

The Echo was designed to allow AIs to pass unnoticed among humankind, largely for those occasions when they wished to avoid notice from fans or enthusiasts. In the latter days of mankind, they've found more use in helping AIs avoid sudden and violent disassembly by frightened locals. Echo-class armatures are indistinguishable from humans without a close medical examination or severe physical damage. The can perform all the functions of a normal human being so perfectly as to deceive even a lover. A technician with Tech/Postech-1 and access to an operational postech workshop could manufacture an Echo for 500 credits, with a week's work.

Strength: 12 **Dexterity:** 12 **Constitution:** 12 **Cost:** 5,000 credits
Armor Class: 9 **Tolerance Cost:** 3
Special: Echo-class armatures are indistinguishable from normal human beings without extensive medical examination.

Nemesis

Where the Standard model was designed for minimal Tolerance requirements and the Echo was built to help an AI pass unnoticed, the Nemesis was a basic combat armature. Integral postech weaponry and improved targeting routines combined to make it a hard-hitting platform that was still cheap enough to be expended relatively freely. Many Nemesis armatures were fitted with basic expert systems and used as shock troops for situations in which true sentience and reasoned judgment were not necessary. A technician with Tech/Postech-1 and access to an operational postech workshop could manufacture a Nemesis for 500 credits, with a week's work.

Strength: 12

Dexterity: 12

Constitution: 14

Cost: 5,000 credits

Armor Class: 4

Tolerance Cost: 3

Special: At the time of construction, either the Strength or the Dexterity of the armature may be set to 14.

Integrated Equipment: Compad, Monoblade, Laser Rifle (no burst fire allowed)

Voyager

The thrill of the unknown always tempted a certain kind of sentience, and the Voyager armature was designed to facilitate that exploration. Exceptional toughness was combined with several useful pieces of integrated equipment to make an affordable armature that could be lost with minimal impact on an AI's financial accounts. A technician with Tech/Postech-1 and access to an operational postech workshop could manufacture a Voyager for 500 credits, with a week's work.

Strength: 12

Dexterity: 12

Constitution: 14

Cost: 5,000 credits

Armor Class: 4

Tolerance Cost: 3

Special: The Voyager has multiple fail safe systems. Once per day, it can reroll any failed saving throw against an environmental hazard.

Integrated Equipment: Metatool, Toolkit/Postech, Bioscanner, Compad, Navcomp

Eidolon

A special polymorphic version of the Echo, the Eidolon was designed with the ability to alter its appearance and adapt to local cultural conditions. Less charitable observers have labeled it a spy armature, though it remains a favorite with AIs who intend to venture into extremely cyberphobic societies. Nothing short of severe physical injury, psychic probing, or surgical medical examination will reveal that the Eidolon is actually an armature.

Strength: 12

Dexterity: 12

Constitution: 14

Cost: 50,000 credits

Armor Class: 7

Tolerance Cost: 5

Special: The Eidolon can shift its appearance to that of any humanoid form between 1.5 and 2.5 meters in height, perfectly replicating any person the Eidolon has observed either directly or through sufficiently thorough recordings. Internal grav nodes even cause the armature to mimic the subject's total mass. If the Eidolon is able to meet the subject's gaze a security-grade retina duplicate can be achieved, and physical contact or a tissue sample can be used to create a DNA mask to fool relevant sensors. Changing outward appearance requires five minutes of motionlessness, while duplicating retinas requires one hour and creating a DNA mask requires twenty-four hours.

Integrated Equipment: Compad, Ultra-miniaturized translator torc circuitry loaded with all human languages known in 2665.

Gnostic

A specialized version of the Voyager, the Gnostic was intended to serve as a panoptic sensor platform for AIs dedicated to the absolutely flawless absorption of their environmental stimuli. Some adopted the Gnostic for artistic reasons, seeking to more perfectly savor their focused reality. Others found the armature's broadband comm systems useful for more practical cryptographic reasons.

Strength: 12

Dexterity: 12

Constitution: 14

Cost: 50,000 credits

Armor Class: 4

Tolerance Cost: 5

Special: The Gnostic is equipped with integrated comm decryption measures that effortlessly defeat most postech encryption protocols. The Gnostic can "listen" to ambient compad or radio transmissions without alerting the participants, and only the best military-grade encryption has any chance of defeating its sensors. On a successful Computer/Charisma check opposed by the recipient's Perception/Wisdom roll, they can fabricate text or audiovisual transmissions under another sender's identity.

Integrated Equipment: Compad, Comm Server, Argus Web, Metatool, Toolkit/Postech

Bane

An advanced military-grade combat armature, the Bane was designed for those AIs dedicated to a more martial purpose than most. Most Banes were built to support special operations units that needed an AI's help to overcome some rogue sentience or dangerous maltech creation. Substantial numbers were said to be commissioned by the enigmatic observation organization known as the Perimeter, purpose-built to deal with the scientific horrors that were their special targets.

Strength: 14

Dexterity: 14

Constitution: 14

Cost: 50,000 credits

Armor Class: 4

Tolerance Cost: 5

Special: At the time of construction, either the Strength or the Dexterity of the armature may be set to 18.

Integrated Equipment: Compad, Monoblade, Distortion Cannon, Stun Baton

Titan

Massive hulks of war, Titan-class armatures were some of the most sophisticated combat armatures developed in the waning years of the Terran Mandate. Roughly humanoid in shape, Titans are four meters tall, with four human-scale manipulator arms and two heavy graspers for shifting obstacles. When given a round to brace itself, a Titan can move up to four metric tons, though it can carry no more than five hundred kilograms. Titans are equipped with a substantial array of integral armament, though they can use only one weapon at a time. AIs that required more firepower and survivability than a Titan provided usually arranged to have their cores implanted in actual combat vehicles or stellar warships.

Strength: 18

Dexterity: 18

Constitution: 18

Cost: 1,000,000 credits

Armor Class: 0

Tolerance Cost: 5

Special: Titan-class armatures are built with multiple redundant damage control systems, and grant 8 HP per level, in addition to their Constitution modifier. Titan armatures are also equipped with grav propulsors, and can fly at a speed of 40 meters per round. Repairing a Titan is more expensive than fixing a less elaborate armature- all repair costs are multiplied by 10.

Integrated Equipment: Compad, Monoblade, Distortion Cannon, Anti-Vehicle Laser

Expert Systems and Bots

Some advanced worlds make extensive use of robotic labor. While only worlds with surviving pretech manufactories or exceptional cybernetic expertise are able to create actual AIs, many postech worlds manage to put together serviceable expert systems for relatively simple, constrained duties.

Expert systems are not sentient and are usually limited to one specific function. Workbots carry out physical labor, liaisons serve as receptionists and semi-smart search engines, and warbots engage in combat or security duties. Even companion bots are possible with the right programming, though the “personalities” they exhibit tend to be very limited in scope.

Expert systems are unable to deal with events or situations outside their scope. Most bots will report distress to their handler and freeze if forced into an unfamiliar situation. Warbots might just start shooting. Bots can generally handle physical obstacles without difficulty and can parse most speech relevant to their duties. Problems common to their function can also be solved; a warbot can flush a target that takes cover, and a workbot can clear a fouled assembly line.

Expert systems are not cheap. Though the software can be duplicated, the hardware and dense sensory processing nodes add substantial expense to each system. If an expert system is to be used with an armature, it must be implanted in the armature at the time of creation, and cannot be removed thereafter.

The more sophisticated the armature, the more expensive the expert system. To determine the cost of a system, apply the following multiplier to the base cost of the armature. As an expert system increases in complexity and efficiency, it demands more costly support tech.

EXPERT SYSTEM COSTS			
System HD	Armature Cost	Attack	Skill
1	<i>x2</i>	<i>+1</i>	<i>+0</i>
2	<i>x3</i>	<i>+2</i>	<i>+1</i>
3	<i>x5</i>	<i>+3</i>	<i>+1</i>
4	<i>x8</i>	<i>+4</i>	<i>+2</i>
5+	<i>Not possible at common tech levels.</i>		

Purchasing a 2 hit die expert system installed into a Nemesis armature, for example, would cost 10,000 credits. The resulting warbot would have 10 hit points, a +2 attack bonus, and a +1 skill bonus for any skills relevant to its duties as a combatant. Its Strength, Dexterity, and Constitution scores would be that of a normal Nemesis armature, but it would effectively have no Intelligence, Wisdom, or Charisma. It can do only what a warbot could reasonably be expected to do. The bot’s saving throws are the same as any other NPC; 15 or better to save, -1 for every 2 full hit dice.

Basic Security Bot

Armor Class	7	No. Appearing	1
Hit Dice	1 (4 HP)	Saving Throw	15+
Attack Bonus	+1	Movement	30'
Damage	1d8 stun baton	Morale	12
Cost	10,000 credits	Skill Bonus	+0

Building from a Standard-class armature, this security bot provides very minimal oversight to a restricted area. Intruders lacking the right credentials are warned off before the bot attacks, and any incidents will be instantly reported over the unit’s integral compad.

Infantry Warbot

Armor Class	4	No. Appearing	1
Hit Dice	2 (10 HP)	Saving Throw	14+
Attack Bonus	+4	Movement	30'
Damage	1d8+1 laser rifle	Morale	12
Cost	15,000 credits	Skill Bonus	+1

With the natural accuracy of its integral laser weaponry improved by a Dexterity upgrade, this Nemesis-based warbot is a superb soldier for any situation that requires the fearless execution of simple tasks. Most warbots are kept away from civilians, as their default response to confusing situations tends to involve explosive violence.

Companion Bot

Armor Class	7	No. Appearing	1
Hit Dice	2 (8 HP)	Saving Throw	14+
Attack Bonus	+4	Movement	30'
Damage	1d2 fist	Morale	12
Cost	15,000 credits	Skill Bonus	+1

Installed into a perfectly lifelike Echo armature, a companion-type expert system provides flawlessly cooperative services to its owner, though the limited library of mannerisms and conversational topics can pall after a time. Some bereaved souls occasionally commission bots of lost loved ones, rarely with good results for the owner’s peace of mind.

Pretech Death Machine

Armor Class	0	No. Appearing	1
Hit Dice	8 (80 HP)	Saving Throw	11+
Attack Bonus	+8	Movement	40'
Damage	3d10 anti-vehicle laser	Morale	12
Cost	Not available	Skill Bonus	+2

A malevolent beast from another time, this Titan-class robot was constructed from sophisticated pretech materials and expert systems components. Vastly superior to present tech, it waits patiently to destroy any intruders who dare to enter a long-lost Mandate naval base.

Hulking figures of ceraplast, reinforced plating, and all-important quantum tap arrays, mechs were some of the most imposing war machines of the Second Wave of human expansion. While few worlds retain the economic base to build and support these titans of war, some can still be found in long-abandoned Mandate military bases or in the armies of worlds that have jealously preserved the secrets of their construction.

Born in Fire

At the beginning of the Second Wave of human colonization, warfare on the advanced worlds had become almost exclusively a matter of standoff engagements. Microdrones, sat-missiles, and guided ordnance of every variety made the battlefield a living hell for those luckless infantry who were forced to face a well-equipped enemy. Attackers could engage at trans-continental range with very little chance of their missiles and drones being brought down, as their command channel encryption was simply too good and their ECCM too strong for defensive jammers to defeat. All the advantages were with the offense.

It wasn't until 2348 and the escape of the rogue AI Draco that this deadlock was broken. The quantum tap techniques that Draco had used to translate his matrix core data into a nearby warship could be repurposed to other uses. Instead of attempting to defeat a hostile projectile's guidance cryptography, a jammer could reach into the device's electronic brain to scramble the contents with a blast of random static.

Most computing devices were not overly susceptible to quantum tap disruption. Onboard error-checking solved out the static quickly and ordinary operation followed. For the split-second timing required by guided weaponry, however, those few milliseconds of confusion were lethal.

The ECM created by a quantum tap array was devastating. Even the most sophisticated error-correction protocols could not scrub the static before the sat-missile or microdrone was hopelessly off course. The taps could not usually control the data they inserted into hostile systems, but it was not necessary to be precise when raw noise sufficed to blind their targets.

The results of quantum tap ECM revolutionized naval warfare. Ships were now able to mount defensive systems that effortlessly negated all but the fastest, best-shielded projectiles. Space combat was forced into knife-fighting range, with ships blasting each other with direct-fire energy beams and brute Newtonian mass weapons that had no guidance systems to scramble.

This evolution was quick. Draco himself was supposedly destroyed when the Mandate's Fourth Fleet under Admiral MacConnell abandoned the traditional and now-futile exchange of smart missiles and guided kill-drones for a seemingly suicidal charge with improvised gravitic mass launchers. The deranged AI was taken off guard and its infamous Red Throne destroyed in a storm of forged iron impact rods.

Made In His Image

While quantum tap technology was an easy fit for starships, developing a mobile ground version was much more difficult. The tap required several emitters kept at appropriate distances from each other to avoid cross-interference. Furthermore, the taps had to be several meters above the planetary surface if they were to avoid confusing backscatter from the planet's gravity well.

Military designers struggled with the complex set of requirements for a ground-based quantum tap array. Some mounted tall emitters on standard armored vehicles, with long alloy spars jutting out to either side to ensure the minimal distance. Others attempted to build aerostat emitters, individual units that would hover in the correct interference patterns. All of these plans foundered on one or another technical difficulty.

It wasn't until 2405 that a researcher finally entertained the idea of a humanoid walker as a platform for a tap array. Mounting the emitters in the walker's "forearms" and "neck" would maintain a reasonably efficient spatial configuration, and would lift the emitters high enough to avoid terrestrial backscatter. The walker itself would be a powerful computing platform and generator mount to support the ECM generated by the emitters, and the armor would give the taps a better chance of surviving the battlefield.

There were numerous technical issues with putting a humanoid walker onto a battlefield, but none of them were insurmountable. Integral grav planes helped to stabilize and support the walker even on soft or uneven terrain, and much of the technology that had been developed for AI armatures could be scaled up to provide the basic lines of a walker- or "mech", as they were soon called.

By maintaining a roughly humanoid shape for the mech, a human pilot could employ standard pretech neural interface technology to control the machine as a natural extension of his or her own body. The additional stability of a treaded or grav-sled base just wasn't enough to outweigh the assimilation advantage of actually giving the mech a humanoid pair of legs.

From that point on, mechs became a familiar sight on human battlefields. While they were far more expensive than an equivalent weight of gravtanks or other conventional war machines, they could shelter kilometers worth of terrain from the attentions of guided projectiles and remote drones. As their importance became clear, the need to defend them from attackers prompted new developments in weapon and defensive system mountings. It soon became a basic tactical requirement for more than one mech to accompany any given advance.

Still, the vast expense of building and maintaining a mech force discouraged their use as the main body of a Second Wave army. Gravitanks, armored personnel carriers, and platoons of assault-suited infantry performed the bulk of the dirty work in battle, but whenever the opponents might be expected to have long-range guided munitions, there was always a mech nearby to shield against an angry sky.

Refinement and Decay

As with any military device, mech development rapidly specialized into several different forms and designs, all calibrated to different purposes on the battlefield. Even the enigmatic researchers of the Psonic Authority became involved in the development, experimenting with ways of embedding integral psitech amplifiers into the war machines.

There were three major types of mech hulls- shock, specialist, and psimech hulls. Shock mechs were designed for direct assault on hardened fortifications or anti-mech combat. Specialist hulls were optimized for particular battlefield duties, especially defensive measures and high-mobility recon. Psimech hulls were the rarest of the three varieties, ancient pretech hulls intended to amplify the abilities of a psychic pilot for battlefield use. The scarcity of expendable psionic mech pilots made them a rarity even at the height of humanity's golden age.

Aside from type, mechs also were classified by hull classes. The smallest mechs were "suits", little more than armored exoskeletons roughly three meters tall. Suits were intended to support the small teams of elite shock troopers who made up the tip of an attacking force's spear. The armor and equipment loadouts on suits were very light compared to their larger brethren, but they greatly enhanced a soldier's survivability in the face of heavy fire. Most suits were too small to mount quantum tap arrays, and simply served to keep a soldier fighting long enough for support to come up from behind.

One step larger than suits were light mechs, most of which were six to eight meters tall. Light mechs were naturally among the most maneuverable and agile of the mech classes, while still being large enough to support the fusion cores necessary for antigrav fins or heavy weaponry. Light mechs could equip surprisingly vicious weapon loadouts, as so little power was required to move the hull.

Heavy mechs were the titans of the battlefield, ten to thirteen meters tall. This bulk was a significant drain on postech-grade fusion cores, and most heavy mechs were wired to provide sudden large surges of power to hungry fittings. Heavy mechs could mount the widest range of defensive equipment and bear the thickest armor, keeping them standing when their lighter comrades were little more than smoking scrap.

Despite this elaborate development, mech deployment became more and more uncommon in the latter years of the Second Wave. They were an expensive solution to a minor problem on the frontier, where brushfire wars and guerilla insurgencies rarely had the vast stores of guided munitions that had scourged the older battlefields of the core worlds. For the price of a single heavy shock mech and a few months of its maintenance, a commander could acquire four gravtanks and their vortex cannon armaments, or scores of Nemesis expert-system warbots. Without the ever-present threat of unstoppable remote bombardment, the mechs were a remedy to a problem that no longer existed.

Gradually, inevitably, mechs faded from the petty battlefields and ambushes of the frontier. They stood silent in sealed Mandate bases or in the armories of border warlords, too expensive to run save on occasions of dire necessity. Their pilots were left to become gravtank drivers or flyer jockeys, or just to keep fighting until some grunt with a dumb fire rocket launcher got a lucky shot in.

In the chaos of the Scream and the Silence that followed, most of the known mech caches were plundered for spare parts. Others were raised for a last ride to damnation as their owners spent them extravagantly to seize disordered worlds. Few were left operational forty years after the disaster, and on even fewer worlds did sufficient industry remain to rebuild or repair them.

Those mechs that do remain are often units recovered from a long-lost Mandate cache or deep-space supply depot. A few worlds still have the tech sufficient to build them, and enough reason to fear guided ordnance to make them necessary on the battlefield once more. These worlds are few, and it is more often that surviving mechs are simply used as the shock troopers for a larger army of more conventional weaponry. They are big trophies with big guns to be spent until they are gone.

But still, here and there among the scattered worlds of mankind, mechs can still be found rising unexpectedly to meet their foes. For all their lost purpose, they remain matchless at their intended role. They are echoes of another time, tools meant for precise and ancient purposes that no longer exist in a coarser age. Those worlds that know them often view them with an unsettled mind. They are iron ghosts from a different age, and they whisper of dooms that their present masters can no longer even remember to fear.

Mech Combat

Combat involving mechs operates in much the same way as any other form of combat. Mechs have weapons, an armor class based on their durability and size, and hit points to reflect their physical condition. Combat largely works just as it does at human or starship scales, with a few adjustments.

Mechs have Armor ratings in the same way that other vehicles do, and suit-class mechs use it the same way. The Armor score is subtracted from the damage done by each attack that hits, except for damage done by weapons that require Combat/Gunnery or that done by other massive tools of violent disassembly. Light and heavy mechs are even more durable, and are immune to ordinary small arms, subtracting their Armor rating from the damage done by heavy weapons.

Mechs also have Speed ratings which are used just as described in the Vehicles section of the equipment chapter. Most mechs use Vehicle/Land for skill checks, though those with grav capability use Vehicle/Grav instead. Those pilots with Exosuit skill can use it in place of either skill. For situations when it is important to determine a mech's movement rating in meters, multiply suit speed by 10 meters and light and heavy mech speed by 20 meters to find their rate of movement for one round.

A mech's pilot can fire all of the guns mounted on a mech each turn, and may fire them at different targets within range. Targets must all be selected before the attacks begin, however, and cannot be altered that round. If all guns are trained on an enemy who's taken out with the first lucky shot, the remaining attacks are wasted. Suit pilots can fire personal weapons if they choose, but they cannot fire both their own sidearms and their suit's equipment in the same round.

Most mechs have substantial internal ammunition magazines, but the amount is not unlimited. A single attack roll might represent several seconds of full-auto gunfire. After each fight in which an ammunition-using weapon is fired, the pilot must make a Combat/Gunnery skill check modified by Wisdom against difficulty 6. On a success, he fired judiciously and still has ammunition remaining. On a failure, he has run out of ammo for that gun. The difficulty of the check increases by 1 after each fight. Ammunition magazines are fully refreshed as part of each mech's maintenance cycle. Energy weapons, melee weaponry, and psitech guns never run out of ammo.

The integral quantum tap arrays mounted on light and heavy mechs negate almost all indirect guided ordnance within line of sight of the mech, defeating incoming projectiles up to ten or twenty kilometers away, depending on conditions. As a general rule, on a battlefield with mechs, an attacker needs to be able to see a target to hit it. Alternately, dumb fire rockets, artillery or grenades can be used to bombard a mech force, as these munitions have no guidance systems to scramble. This ECM is not relevant in defending against the weapons listed in this section, but it can make an enormous difference on a battlefield contested by advanced military forces.

Mechs, Psionics, and Special Abilities

Mechs are treated as extensions of the wearer for the purpose of special abilities. Warriors can use their Veteran's Luck ability while piloting one, and psionic abilities that apply effects to an ally or enemy usually apply to their mech as well if such an effect is reasonable. The precognitive benefits of *Destiny's Shield* can plausibly aid a mech pilot, for example, but none of the Biopsionic powers could mend scorched metal and broken composites.

Psychics with the Teleportation discipline can teleport their mech at no additional weight cost if it is a psimech. Teleporters with level 6 or greater skill in the discipline can manage to shift the weight of a suit even if it isn't a psimech variant. Light and heavy mechs of the shock or specialist variety are too heavy for any teleporter to move.

Mech Damage and Repair

Mechs take damage normally, but leave their pilot unharmed until they are finally destroyed. In most cases, the enormous energies being thrown around a modern battlefield make the wearer's hit points largely irrelevant. For small mech suits, however, the individual toughness and stamina of the pilot can make a difference. When a suit-class mech is damaged by an attack, the pilot may choose to take the entire hit off their own hit points, to represent their gradual loss of stamina, focus, and luck.

Mechs are fully functional until their last hit points are destroyed. Once reduced to zero hit points, the hull is inoperable and the pilot is exposed to the outside atmosphere. In hostile environments, most pilots wear vacc suits against this unfortunate possibility.

The pilot of a mech reduced to zero hit points must also make a Luck save; on a success, they escape the hull with one-quarter of their current hit points, rounded up. On a failure, they are mortally wounded and will require swift application of Biopsionics or Lazarus patches if they are to survive.

Repairing one hit point's worth of damage on a suit costs 1,000 credits. The same repair on a light or heavy mech costs 2,000 credits worth of materials. A single tech can repair a number of hull points of damage equal to their Tech skill plus one for each hour of work. For most mechs, Tech/Postech is the relevant skill, though psimechs require Tech/Psitech. Suits can be repaired with no more than the necessary spare parts and a portable toolkit, but light and heavy mechs require more sophisticated repair facilities. Remote repair vehicles and heavy haulers are standard support elements for most mech units.

Mechs can resist any normal extreme of environment, from hard vacuum to a planetary atmosphere of poisonous vapors. Any environment harsh enough to damage a vehicle will apply the same penalties to a mech. Mech suits are equipped with three days of food, water, and atmosphere, while light and heavy mechs can support their occupants for up to a week.

Manipulation and Smashing

Mechs are remarkably agile machines, and can perform any act of physical dexterity possible for a normal human being. All suits and most larger hulls are equipped with “hands” of some sort for manipulating objects, usually waldoed to even finer manipulators that can handle and utilize human-scale objects. Integral stability gravs in all mechs allow them to move over any surface that can support their weight. Suit hulls can operate without major difficulty inside most buildings, but light and heavy mechs are usually forced to remain on roadways or solid ground if they lack grav flight capability.

Mech hulls are extremely strong. A suit can normally tear a suit-sized hole in a standard postech exterior wall with four rounds of effort, while a light mech can smash a hole big enough for it to pass through in only two rounds. Heavy mechs crush barriers with terrible ease, smashing huge holes in an obstruction with just a single round of effort. Lighter or more primitive construction gives way in half the time, while fortified armorplast barriers may require 1d6 times as many rounds, or be completely impervious to anything short of special breaching charges.

If raw lifting weight becomes relevant, suits can lift and carry one metric ton, light mechs can manage five tons, and heavy mechs can manage twenty tons. More than this might be theoretically possible for a hull, but it taxes the grav stabilizers too badly, and will almost always end up toppling the mech or “fenceposting” it thigh-deep into the softer soil beneath it.

Skill rolls made in a mech suit are treated as normal skill rolls, with the appropriate Vehicle/Land or Vehicle/Grav skill replacing Athletics for tests of speed or physical prowess. Exosuit skill can substitute for either Vehicle skill for a trained pilot.

Maintenance

The fusion cores that power the hulls require no refueling, but the engines, servos, magazines, electronics, and fittings all need regular maintenance and refitting in order to remain functional. Mechs can operate up to 24 hours before maintenance is required. For each further two hours of operation, a cumulative -1 penalty is applied to all hit rolls and skill checks with the mech. When the penalty hits -10, the mech shuts down until maintained.

Maintenance for a hull requires the same tools and facilities as does repair. In one hour, a single tech can maintain a number of heavy mechs equal to their relevant skill rating plus one. They can maintain twice as many light mechs and four times as many suits. Thus, a tech with Tech/Postech-2 skill could maintain twelve suits per hour, or fix up one suit in five minutes. A maintenance cycle for a suit requires spare parts and ammunition costing 500 credits, while one for a light mech costs 1,000 and a heavy costs 2,000.

Keeping a mech force in the field is expensive. Most commanders prefer to run a maintenance cycle daily, though some resource-strapped leaders minimize the active use of their mechs and try to stretch out the periods between upkeep. These frugal ways can come back to haunt a detachment when they're suddenly pressed



by enemies who have no intention of giving them the time they require to refit their mechs.

Piloting Mechs

Mech control systems rely on contact-free neural scanning and imaging technology combined with induced somatic feedback projectors. No special harness is required, and any armor with an encumbrance value of 1 or less can be worn by a pilot without interfering with the mech's operation. There is almost never any kind of key or lockout on a combat mech; the security of the mech is usually based on it being located in the middle of a high-tech military base, and not on possession of a keycard or passcode. A few hours of basic training will allow anyone to operate a mech, though elaborate maneuvers may be impossible for those without at least level-0 skills.

Interfacing with a mech requires 1d6 rounds, minus the highest of the pilot's Exosuit or relevant Vehicle skills. Climbing into a light or heavy mech cockpit usually takes an additional round.

There is normally room inside a mech to transport the wearer's readied and stowed equipment. Even a suit-class mech can carry a hundred kilos of additional gear without slowing down, and light and heavy mechs can cart around tons worth of cargo. Such loads tend to be highly vulnerable to enemy fire, as they're often protected by nothing thicker than a width of cargo netting. In most cases, it won't be important for the GM to worry about encumbrance for mech pilots. If the mech is blown up and the pilot survives, he escapes with his usual gear while anything strapped to the mech is destroyed.

MECH HULLS										
<i>Hull</i>	<i>Cost</i>	<i>Maint.</i>	<i>Speed</i>	<i>Armor</i>	<i>HP</i>	<i>AC</i>	<i>Power</i>	<i>Free Mass</i>	<i>Hardpoints</i>	<i>Class</i>
Shock Suit	150k	500	4	12#	15*	2	10	5	2	Suit
Specialist Suit	150k	500	6	8#	10*	3	5	10	1	Suit
Psi Suit	300k	500	4	8#	15*	0	5	5	1	Suit
Light Shock	500k	1,000	3	15	40	4	20	10	3	Light
Light Specialist	500k	1,000	5	10	30	5	10	20	2	Light
Light Psimech	1m	1,000	3	10	40	3	10	10	2	Light
Heavy Shock	1m	2,000	2	25	70	5	40	20	6	Heavy
Heavy Specialist	1m	2,000	4	15	50	6	20	40	3	Heavy
Heavy Psimech	2m	2,000	2	15	60	4	15	15	3	Heavy
# Suit-class armor does not apply against Gunnery weapons. Light and Heavy mechs are immune to non-Gunnery attacks. * Pilots of suit-class mechs may choose to take an attack's damage against their own hit points after it is rolled.										

Mech Hulls

Mech hulls are defined by many of the same traits possessed by a starship, with a few adjustments for the unique nature of these engines of war.

Maintenance must be performed on a mech after every 24 hours of operation. For every further two hours or fraction thereof, the mech suffers a cumulative -1 on all hit rolls and skill checks. This entry gives the cost in spare parts and consumables for performing a maintenance pass on a given hull. In one hour, a single tech can service a number of heavy mechs equal to their relevant Tech skill plus one. Twice as many light mechs and four times as many suits may be serviced in the same time. Suits can be serviced with little more than the spares and a portable toolkit, but light and heavy mechs require support vehicles with work cranes and more extensive tool selections.

Armor functions in the same way as starship armor for most mechs, rendering them immune to damage from anything smaller than Gunnery-type weapons, and subtracting from any incoming damage. Suit mechs are an exception, being much smaller and comparatively more fragile. Their armor subtracts from the damage done by small arms, but Gunnery weapons ignore it.

Hit Points are lost as normal to attacks that damage the mech. Once the mech reaches zero hit points, the pilot must make a Luck saving throw; on a success, they escape the mech with one-quarter of their current hit points, rounded up. On a failure, they are mortally wounded. Pilots of suit-class mechs may opt to take the full damage of an attack off their own hit points after the dice are rolled, reflecting a strike that rattles or exhausts the pilot without doing significant damage to the hull itself.

Speed, Armor Class, Power, Free Mass, and Hardpoints all function for mechs just as they do for starships. Fittings, weapons, and defenses are all added to the base hull up to the maximum load permitted by a hull's free mass and power.

Designing a Mech

Select a hull class and type

Choose a hull class- either a suit, light, or heavy mech. Then determine whether it will be a heavily-armored shock model, a fast and versatile specialist model, or one of the rare psimech types designed for psionic pilots. Any type may be piloted by any character, but non-psychics cannot effectively use psi weapons or fittings.

Add fittings

Select appropriate fittings from the table in this section. Each fitting has a cost in free mass and power, and the total requirements of all fittings, weapons, and defenses cannot exceed the suit's rated power and mass. Some fittings also have a minimum hull size, and cannot be mounted on smaller mechs. Psitech fittings can only be mounted on psimechs.

Add weapons and defenses

Select the desired weaponry and special defenses for the mech, taking into account their free mass and power costs. Weapons also take up one or more hardpoints, and a mech is limited in the number of available hardpoints for a given model. A mech may be equipped with as many weapons as it has hardpoints, power, and mass to support.

Total the costs

Tally up the cost of the hull, fittings, weapons, and defenses, and make sure that you haven't overspent your available power, mass, hardpoints, or credit budget. You should also take care to factor in the costs of maintenance for a mech. For every day or two of use, a suit will cost 1,000 credits in maintenance work, and a light or heavy mech will run twice that sum.

MECH FITTINGS					
<i>Fitting</i>	<i>Cost*</i>	<i>Power</i>	<i>Mass</i>	<i>Min. Class</i>	<i>Function</i>
Active Camo Surface	25k	1	2#	Suit	<i>Shifts the hull's coloration to blend with its surroundings.</i>
Ammunition Cells	10k	1#	1	Suit	<i>Extends the ammunition supply available to a mech's guns</i>
Antigrav Nodes	50k	2#	4#	Suit	<i>Allows flight in environments up to 2 standard gravities.</i>
Augmented Enviroseals	15k	1	2	Suit	<i>Allows extended operation in hostile environments.</i>
Breaching Tool	20k	1	1#	Suit	<i>Carves large holes in stationary obstacles.</i>
Bridging Laminates	10k	1	1#	Light	<i>Creates a road capable of supporting the mech's weight.</i>
Cargo Space	1k	0	1	Suit	<i>Grants room to carry a certain amount of protected cargo.</i>
Comm Interceptors	30k	2	5	Light	<i>Allows attempts to descramble enemy communications.</i>
Construction Array	50k	1#	3#	Light	<i>Allows mech to serve as a Tech/Postech facility.</i>
Drop Sheathing	10k	0	1#	Suit	<i>Conceals an orbital insertion.</i>
Escape Pod	25k	1	1#	Light	<i>Improves the odds of a pilot surviving mech destruction.</i>
Field Medical Unit	25k	2	1#	Suit	<i>Allows extensive battlefield medical support.</i>
Fire Control Unit/Master	100k	2	3#	Light	<i>Grants friendly mechs a selective fire ability</i>
Fire Control Unit/Slave	20k	1	1#	Light	<i>Necessary for gaining the benefits of an ally's FCU/Master.</i>
Grav Chutes	20k	1	1#	Suit	<i>Allows orbital insertion of a mech.</i>
Inquisitor Probe	60k	1	1#	Suit	<i>Psi. Allows a telepath to read a target mind's intentions.</i>
Integral Maintenance	30k	2	1#	Light	<i>Auto-applies field maintenance.</i>
Jump Coil	60k	1	1#	Suit	<i>Psi. Allows a teleporter to translocate other mechs.</i>
Kinesis Boost	60k	1	1#	Suit	<i>Psi. Allows a telekinetic to increase the speed of a mech.</i>
Neural Activity Sensors	60k	1	1#	Suit	<i>Psi. Allows any psychic to detect sentient minds.</i>
Neural Static Generator	60k	1	1#	Suit	<i>Psi. Allows a metapsion to negate enemy psimech powers.</i>
Omen Tap	60k	1	1#	Suit	<i>Psi. Allows a precog to hinder a target's hit or skill rolls.</i>
Panoptic Cloud	25k	2	2#	Light	<i>Emits a swarm of microscopic sensors.</i>
Polyspectral Sensors	40k	1	1#	Suit	<i>Penetrating sensor scan within one hundred meters.</i>
Pulse Transceiver	75k	2	5	Suit	<i>Allows faster-than-light communication with a receiver.</i>
Skywatch Drones	40k	1	2#	Light	<i>Launches drones to observe remote areas.</i>
Vivification Field	60k	1	1#	Suit	<i>Psi. Allows a biopsion to automatically stabilize wounded.</i>
Void Thrusters	25k	1#	2#	Suit	<i>Allows flight in zero or trace-gravity environments.</i>
# Multiply this requirement by 2 for light mechs and 4 for heavy mechs					
* Multiply the base cost by 3 for light mechs and 6 for heavy mechs					

Mech fittings can only be installed once for any particular system, unless noted otherwise. Mech fittings usually require a particular minimum hull class for installation, with suit-class hulls being unable to mount skywatch drones or comm interceptors. Psi-based fittings can be mounted only on psimechs and can be used only by psionic pilots.

Mech Fittings

Active Camo Surface: This sophisticated mix of chromatic paneling and holoprojectors renders the mech surprisingly difficult to spot at a distance. Suits gain a +2 bonus to Stealth skill checks made against observers more than ten meters away. Light mechs gain the same bonus against observers more than fifty meters away, and heavy mechs apply it against spotters more than a hundred meters away.

Ammunition Cells: Mech guns are voracious with their ammunition, and these cells increase the load available to the mech's guns. When making a Wis/Combat/Gunnery roll to determine whether or not a mech has run out of ammo for a gun after a given fight, the pilot can ignore the first failed skill check. The ammo cells cannot help again until after a maintenance cycle. Ammunition cells may be fitted more than once on a mech.

Antigrav Nodes: These nodes enable a mech to fly at their standard rate of movement. Pretech-grade grav nodes can lift a heavy mech, but the great majority of grav propulsors can only be fitted to suits or light mechs. If pretech nodes are found on the open market at all, the price is sure to be at least 500,000 credits.

Augmented Enviroseals: Specialized equipment for mechs intended to operate on worlds with invasive or corrosive atmospheres. These seals can hold out against contamination or erosion for at least four

times as long as most vehicles on the world. The interval between radiation saving throws is also increased by a factor of four.

Breaching Tool: A combination of a pickaxe and a demolitions charge, a breaching tool can be used to blow a mech-sized hole in any standard postech building material with one round of effort. Against hardened military structures designed specifically to repel such efforts, the same hole takes 1d6+1 rounds.

Bridging Laminates: A slurry of clastic composites mixes with soil or gravel drawn into the mech's feed chutes before being projected into a tough, durable bridge over chasms or trenches. A mech can produce 20 meters of bridge per round to a maximum distance of 60 meters for any single span. The bridge can bear the weight of a mech of the same size class that built it, and a total of 600 meters of bridges can be constructed between maintenance cycles. Breaking a hole in the bridge requires the infliction of 20 points of damage, or 40 to completely smash a span.

Cargo Space: This space is protected and pressurized. If the mech is destroyed, the cargo remains intact on a successful Luck save by the pilot. Cargo space in a suit can carry up to one hundred kilos. A light mech can stow up to 500 kilos, and a heavy mech can manage 2,000 kilos. Some cargo spaces are refitted for passengers.

Comm Interceptors: These polyspectral snoops pick up and automatically decrypt transmissions made or received near the mech. Civilian comms are automatically broken, while successfully compromising a military enemy's comms requires line of sight with the target and a successful opposed Computer skill check.

Construction Array: This mobile repair and construction array allows a mech to serve as a functioning postech workshop and earthmover for field engineering purposes. A mech with a construction array can be used to perform repairs and maintenance on itself and other mechs, if spare parts are available. Most arrays allow for carrying up to twice the mech's own hit points in repair materials.

Drop Sheathing: Some mech drops involve nothing more than grav chutes to slow the machine's orbital insertion. Sometimes it's necessary to drop mechs in the teeth of an opposing force, in which case drop sheathing is often added to a mech's equipment loadout. This ablative shielding burns away in the atmosphere, but while it lasts, it forces defenders to make a Computer skill check at difficulty 10 to detect the mech's insertion.

Escape Pod: This armored cockpit is programmed to eject from a fatally compromised mech, landing the pilot in a random direction 1d20 x 100 meters from the downed mech. Pilots with an escape pod may reroll a failed Luck save to avoid mortal injury when their mech is destroyed.

Field Medical Unit: Fire-and-forget medical drones and heavy diagnostic computing support allow the mech to provide medical treatment for downed comrades. When the mech pilot spends a round guiding the med drones, he provides trauma care equivalent to a Lazarus patch for up to twenty downed allies within a two-hundred meter radius.

Fire Control Unit: These units come in master and slave versions, with up to five slave units linking to a single master. So long as the master unit's mech remains functional and within a one-kilometer range, the other units linked with it can assign weapon attacks one at a time, rolling hit and damage for each before firing the next.

Grav Chutes: Mechs with grav chutes take no damage from falls, even from orbital insertions.

Inquisitor Probe: By targeting a visible person or mech, the psimech pilot with at least 1 level of the Telepathy discipline can force the person or pilot to make a Mental Effect saving throw. If failed, the user gains an impression of their current tactical plan and the foremost thoughts in their mind. A successful save renders the target immune to inquisitor probing for 24 hours.

Integral Maintenance: This system can automatically apply a maintenance cycle to itself with 30 minutes of downtime. A mech can carry supplies for up to seven maintenance cycles in the unit.

Jump Coil: Any teleporter can translocate their own psimech, but the jump coil allows the pilot to teleport up to five additional allied mechs of equal or smaller size along with him, provided they are within 10 meters of him.

Kinesis Boost: Any psionic with at least 1 level in Telekinesis can use this psitech to boost their Mech's Speed rating by 2 and gain +2 to all initiative rolls.

Neural Activity Sensors: This psitech functions for any psionic, and allows them to automatically detect the presence of sentient minds within two kilometers, with a margin of error of roughly 50 meters for any given mind. The species of sentient can be recognized, but not individuals.

Neural Static Generator: A counterpsi tech, this fitting allows a psion with at least 1 level in Metapsionics to automatically negate any psi-based mech fitting targeted at it or any ally within 400 meters. The mech also gains 5 additional points of Armor against psi weapons.

Omen Tap: A psionic pilot can force a visible target to reroll a successful hit roll or skill check. This ability can be used once per round, and a maximum number of times per hour equal to the pilot's Precognition discipline rating times two.

Panoptic Cloud: A swarm of tiny aerostat sensors surrounds the mech out to 100 meters, giving them a constant awareness of their surroundings within that range. The sensors provide both audio and visual data, and only atmosphere-tight seals can keep them out. Their presence will trigger most advanced security alarms, however.

Polyspectral Sensors: These sensors use an array of emissions to form a crude model of the terrain one hundred meters in front of the mech, providing rough detail down objects one-third of a meter or greater in size. Less efficient than a panoptic cloud, it cannot penetrate EM-hardened barriers, but does not normally trigger security alerts.

Pulse Transceiver: The pulse transceiver effectively functions as a faster-than-light communications laser with a range sufficient to reach the outer rim of a solar system. Provided the mech knows the location of a receiver, two-way communication can be conducted. The data channel is limited to text and still images. Commercial commsats can also serve as receivers if a military unit is not available.

Skywatch Drones: These small aerostat drones are one-third of a meter in length, with a range of up to ten kilometers. They can loiter above a site for up to eight hours before losing power, and can be recharged with an hour in the mech's rack. The drones have standard and infrared telescopic video sensors and can hover at altitudes of up to one thousand meters. While difficult to spot with the naked eye, skywatch drones are very easy for modern anti-air defenses to locate, and rarely last more than ten or twenty seconds over a military target before being brought down. Any damage will bring down a drone, but hitting one at maximum altitude with a hand weapon requires a hit on armor class -5.

Vivification Field: This psitech augmentation is designed to key onto recognized allies on the battlefield. When a mech equipped with a field is piloted by a psychic with at least 1 point in Biopsionics, it automatically stabilizes mortally wounded allies within 100 meters, with no action required by the pilot.

Void Thrusters: These microscale grav plates allow a mech to fly at its normal base Speed. This flight functions only in zero-gee or microgravity environments.

MECH DEFENSES					
Defense	Cost*	Power	Mass	Hull	Effect
Augmented ECM Projector	75k	2#	1#	Light	-2 AC bonus, -1 Speed penalty
Hardened Polyceramic Overlay	50k	1#	1#	Light	AP quality of attacking weapons reduced by 5
MES Shunt Channels	25k	1#	2#	Suit	Grants Armor 5 versus Psi weaponry
Morphic Silhouette Damper	25k	1#	2#	Suit	Decreases an attacking weapon's Range by half.
Redundant Systems Buffer	75k	10	5	Heavy	+20 hit points
Vanguard Plating	100k	15	5	Heavy	AP quality of attacking weapons reduced by 15

Multiply this requirement by 2 for light mechs and 4 for heavy mechs
 * Multiply the base cost by 3 for light mechs and 6 for heavy mechs

Mech Defenses

Augmented ECM Projector: The quantum taps on this mech have been tuned to interfere with the targeting of enemy weapon systems, at the cost of additional power drawn from the motive servos. The mech has an effective -2 armor class bonus against attacks from other vehicles or mechs, though its Speed rating is reduced by 1.

Hardened Polyceramic Overlay: A relative of the same hardened plating used on military warships, this plating reduces the armor piercing quality of attacking weapons by 5. Thus, a heavy laser that normally ignores 25 points of its target's armor now only ignores 20.

MES Shunt Channels: Complex psitech-derived shielding circuitry provides limited protection against psi-based weapons, adding 5 points of Armor that only count against weaponry with the Psi quality. This armor stacks with any gained from a Neural Static Generator.

Morphic Silhouette Damper: Holoprojectors and pulsed ECM conspire to make it much more difficult to fix the mech in a weapon's sights. The effective range of any weapon targeted at the mech is reduced by half. This benefit is lost if the attacker is within 50 meters of the mech.

Redundant Systems Buffer: Substantial power and mass is devoted to a complex array of redundant systems, increasing the amount of punishment the heavy mech can take before it is finally destroyed.

Vanguard Plating: Blast vents channels, localized force fields, and advanced damage control monitors are used to defang armor-piercing weaponry used against the heavy mech. The armor-piercing quality of an attacking weapon is reduced by 15. This defense does not stack with a Hardened Polyceramic Overlay.

MECH WEAPONRY								
<i>Weapon</i>	<i>Cost</i>	<i>Damage</i>	<i>Power</i>	<i>Mass</i>	<i>Hardpoints</i>	<i>Range</i>	<i>Hull</i>	<i>Special</i>
Banshee Vox	35k	2d12	5	3	1	30	Light	<i>Cone 30m, Anti-personnel</i>
Beam Lance	100k	5d8	15	5	3	1k/2k	Heavy	<i>AP 30</i>
Cutter Plates	20k	1d12/class	5	3	1	Melee	Light	<i>AP 10, Melee</i>
Finger of God	300k	4d12	6	3	2	500/1k	Heavy	<i>Psi, Slow</i>
Heavy Machine Gun	10k	3d6 #	3	2	1	500/2k	Suit	<i>AP 5, Ammo</i>
Hydra Array	40k	3d6 #	6	3	1	2k/4k	Light	<i>AP 5, Ammo</i>
Improvised Weapon	-	1d8/class	-	-	-	-	-	<i>Melee</i>
Inferno Projector	35k	4d6	6	3	2	20	Light	<i>AP 10, Cone 20m, Slow</i>
Laser, Anti-Air	40k	3d8	5	2	2	6k/12k	Suit	<i>AP 10, Special, Slow</i>
Laser, Anti-Vehicle	20k	3d10	7	3	2	500/1k	Suit	<i>AP 15</i>
Laser, Heavy	75k	3d12	10	4	3	1k/2k	Heavy	<i>AP 20</i>
Laser, Light	35k	3d8	5	2	1	500/1k	Light	<i>AP 10</i>
MES Knife	100k	1d12/class	1	1	1	Melee	Suit	<i>Psi, Melee</i>
Mindburner	200k	4d10	2	2	1	20	Light	<i>Cone 20m, Psi</i>
Plasma Thrower	50k	4d10	10	2	2	250/500	Light	<i>AP 10</i>
Rail Cannon	150k	4d12	20	5	4	2k/4k	Heavy	<i>AP 45, Slow, Ammo</i>
Railgun	16k	3d8 #	7	4	2	1k/2k	Light	<i>AP 15, Ammo</i>
Razor Cloud	30k	3d10	4	3	2	30/60	Light	<i>Anti-personnel, Ammo</i>
Rocket Launcher	8k	3d10	3	2	1	2k/4k	Suit	<i>AP 5, Ammo</i>
Vortex Cannon	150k	5d12	15	5	3	1k/2k	Heavy	<i>AP 10</i>
Wheatcutter Belt	20k	2d12	2	3	1	10/20	Light	<i>Anti-personnel Ammo</i>
# Can be fired to suppress								

Mech weaponry normally requires Combat/Gunnery skill to fire and relies on the user's Intelligence or Dexterity to determine hit and damage modifiers. Most NPC pilots have a total attack bonus of +2 and damage bonus of +0. Veteran pilots average +3 to hit and +1 damage, while the grizzled elite rarely have less than +5 to hit and +2 damage.

Some weapons can be fired to *suppress*. Every target in front of the weapon that is not under hard cover is automatically hit for half normal damage, rounded down. A successful Evasion or Luck saving throw by the targets eliminates this damage.

Special Weapon Qualities

Ammo: This weapon uses physical ammunition. After the end of every fight in which it was fired, the pilot needs to make a Combat/Gunnery skill check modified by Wisdom against a difficulty of 6. On a failure, ammo for the gun has run out until the next maintenance cycle is complete. The check difficulty increases by 1 after every fight until the mech is maintained.

Anti-personnel: Armored vehicles, fortifications, and light and heavy mechs are immune to these weapons.

AP: The weapon ignores this many points of a target's armor. The Hardened Polyceramic Overlay or Vanguard Plating defense upgrades may lessen the effectiveness of this quality. The most a

weapon's AP rating can do is reduce a target's effective armor to zero. It cannot add additional damage to a hit.

Cone: The weapon fires in a conical pattern that many meters long and wide at its end. All targets within the cone must make an Evasion saving throw or be hit, with no hit roll required. Targets behind hard cover save automatically.

Melee: Melee weapons can only be used in hand-to-hand combat, and no non-melee weapon can be used that same round. Pilots use either Combat/Unarmed or Combat/Primitive for hit rolls.

Psi: Psi weapons use metadimensional energy channels to completely ignore a target's Armor rating, except for any armor granted by the MES Shunt Channel defense fitting. Defenses such as Hardened Polyceramic Overlay have no effect on psi weaponry. Pilots may optionally choose to use Combat/Psitech with psi weapons, even melee varieties. Psi weapons rely on Wisdom or Constitution to modify attack and damage rolls, rather than Dexterity or Intelligence.

Slow: After firing, the attacker must roll a Combat/Gunnery/Int skill check against difficulty 8. For psi weapons, use Combat/Psitech/Int. On a failure, the gun must cool down for one round before it can be fired again.

Mech Weapons

Banshee Vox: A focalized sonic blast stuns and disorients all organic life in the path of this weapon. Damage done by a banshee vox is nonlethal, and targets brought to 0 hit points by it will wake up one 1d4 hours later with 1 hit point. Targets inside a vehicle or behind hard cover are immune to a banshee vox.

Beam Lance: More power-hungry and harder to mount than a heavy laser, the beam lance is meant to cut through heavy armor on enemy shock mechs.

Cutter Plates: Rotating blades, force-field shearing planes, or just a really big axe; cutter plates are meant for melee combat and carving large holes through obstacles. Suit cutter plates do 1d12 damage, light mech ones do 2d12, and heavy mech plates do 3d12.

Finger of God: A psitech weapon that can be mounted only on psimechs and used by a psionically-active pilot, the Finger of God is a brutal weapon that operates soundlessly and without visible emissions. The psychic piloting the mech selects the target and channels a massive surge of metadimensional energy through it. The blast ignores all conventional armor and can be expected to suddenly reduce anything smaller than a heavy mech into a smoking heap of scrap.

Heavy Machine Gun: A standard gunnery weapon scaled for mounting on a mech. Popular on suit-class shock mechs for its easy provenance of suppressive fire.

Hydra Array: A standard gunnery weapon mounted on a mech. The gunner designates up to three targets for the hydra array's missiles and can then make three rolls to hit divided among them. Each successful hit on a target allows the gunner to roll damage once, but only the highest damage roll is applied to any single target.

Improvised Weapon: This object is something large and heavy that the mech has snatched up to use as a weapon. Suits do 1d8 damage with improvised weapons, while light mechs do 2d8 and heavy mechs do 3d8.

Inferno Projector: A spray of superheated plasma turns everything within thirty meters of the projector's aperture into charcoal and casualty reports.

Laser, Anti-Air: This standard light laser has been retuned to optimize it for firing at airborne targets, and the range has been greatly increased. It can pick off spy units such as Skywatch drones automatically once they have been spotted. The laser is optimized for firing at "clean" airborne targets, however, and suffers a -4 penalty to hit when aiming for ground-bound targets.

Laser, Anti-Vehicle: A standard gunnery weapon recalibrated for mech use. When it hits an armored target, such as another mech, it can reroll any "1"s on the damage dice.

Laser, Heavy: A mainstay of heavy shock mech loadouts, the heavy laser delivers brutal punishment to its targets as it cuts through anything short of heavy military armor plating.

Laser, Light: The light laser trades the enormous penetrating power of its heavier cousin for a lighter power drain and easier fitting requirements.

MES Knife: This psitech weapon focuses a beam of aligned metadimensional energy into a melee weapon. As with other psi weapons, the knife ignores a target's Armor rating. Suits do 1d12 damage with the knife, light mechs do 2d12, and heavies do 3d12.

Mindburner: Named for the horrific hallucinations provoked in the few targets to survive a glancing brush from the weapon, the mindburner ruthlessly boosts the electrical activity in its targets, burning out human minds and electronic devices with equal efficiency. Conventional Armor is ignored by this weapon.

Plasma Thrower: While the range of this energy weapon is shorter than that of a light laser, it brings slightly more damage to the battlefield.

Rail Cannon: The queen of the battlefield, the rail cannon is a weapon so heavy it can only be mounted on a heavy shock mech. A single rod from a rail cannon can punch through the best vanguard defensive plating as if it were tissue. The weapon is prone to overheating, however, and makes cruel demands on a mech's power grid.

Railgun: A standard gunnery weapon fitted for mech use. Some pilots prefer it for the sake of the suppressive fire it can lay down and the good armor-piercing profile of its munitions.

Razor Cloud: Designed to counter infantry swarms, the razor cloud pulses fractal shrapnel in a cloud of steel around the mech. Any target within 30 meters is automatically hit, and may make an Evasion save for half damage. Any target within 60 meters is automatically hit for half damage, and may make an Evasion save to take none. Hard cover protects a subject from the cloud.

Rocket Launcher: A standard gunnery weapon, popular with suit pilots who need more range than a heavy machine gun can provide, at the cost of a lack of suppression fire. Rocket launchers also have difficulty in locking on targets of human size or smaller, applying a -4 to any hit rolls against them. Conventional rocket warheads are shaped for maximum armor penetration rather than explosive radius, and mech pilots can use them even against very close targets without danger of being caught in the blast.

Vortex Cannon: Perfectly silent in operation, these weapons are more often mounted on graptanks. While they don't deal as well with the extravagant plating of heavy mechs, they can smash thinner-skin targets into silent fragments in a single round of fire.

Wheatcutter Belts A standard anti-personnel weapon refitted for mech use. When triggered, a belt of explosives fires off a scything blast of shrapnel on any side of the mech. All creatures within 10 meters must make an Evasion save for half damage. Those within 20 meters take half damage, and can make an Evasion save to take none at all.

SAMPLE MECHS

ACHILLES-CLASS SHOCK SUIT

Power: 10/2 free

Mass: 5/0 free

Cost: 178,000

Armor: 12 against non-Gunnery weapons

Speed: 4

Hit Points: 15

AC: 2

Weaponry Rocket Launcher (3d10, AP 5, Ammo), Cutter Plates (1d12, AP 10, Melee)

Defenses None

Fittings None

A cheap baseline shock suit, the Achilles relies on its pilot's skills to make up for the lack of elaborate hardware. The rocket launcher gives the Achilles teeth against enemy armored vehicles or aircraft, while the cutter plates can chew through a ferrocrete wall before rapidly shredding any defenders on the other side. Shock-grade armor plating helps ensure that the Achilles can survive as a doorkicker for a strike team. Still, the loadout mix forces an Achilles pilot to be extremely versatile in weapon handling skills for best results.

ULYSSES-CLASS SPECIALIST SUIT

Power: 5/0 free

Mass: 10/3 free

Cost: 266,000

Armor: 8 against non-Gunnery weapons

Speed: 6

Hit Points: 10

AC: 3

Weaponry None

Defenses None

Fittings Cargo Space (100 kilos), Field Medical Unit, Polyspectral Sensors, Antigrav Nodes

The Ulysses sacrifices all onboard weapons, leaving the pilot to defend himself with personal small arms in favor of packing significant support hardware into the suit's armored shell. Polyspectral sensors make the suit an excellent scout and command unit for directing Achilles-equipped shock troops, while the field medical unit aids in recovering downed allies. The antigrav nodes even allow this suit to fly for extended periods, and a Ulysses can lift up to two of its allies with it as it vaults ground obstacles.

HECATE-CLASS PSI SUIT

Power: 5/4 free

Mass: 5/4 free

Cost: 400,000

Armor: 8 against non-Gunnery weapons

Speed: 4

Hit Points: 15

AC: 0

Weaponry MES Knife (1d12, Psi, Melee)

Defenses None

Fittings None

Eldritch engines that were rare even in their heyday, the Hecate was designed as a basic platform for a mech-trained combat psychic. Its large amount of free power and mass allowed the psychic to fit the particular support hardware that best complemented his or her talents, while the integral MES knife was a backup weapon in case of sudden confrontation. Most Hecate pilots were expected to remain well behind the front line. Their talents were rare and valuable enough to risk only in the best causes, and much of the suit's engineering margin was devoted to advanced ECM and damage control systems.

ANGURVADAL-CLASS LIGHT SHOCK MECH

Power: 20/4 free

Mass: 10/0 free

Cost: 760,000

Armor: 15

Speed: 3

Hit Points: 40

AC: 4

Weaponry Railgun (3d8#, AP 15, Ammo), Heavy Machine Gun (3d6#, AP 5, Ammo)

Defenses Hardened Polyceramic Overlay (-5 to enemy AP qualities)

Fittings Ammunition Cells x2

A walking bullet fountain, the Angurvadal is meant to provide long-range fire support against enemy armor, or to take the brunt of an advance as needed. Extended ammunition magazines keep it firing after most of its opponents have long since run dry.

CURTANA-CLASS LIGHT SPECIALIST MECH

Power: 10/0 free

Mass: 20/3 free

Cost: 1,003,000

Armor: 10

Speed: 5

Hit Points: 30

AC: 5

Weaponry Rocket Launcher (3d10, AP 5, Ammo)

Defenses None

Fittings Field Medical Unit, Panoptic Cloud, Skywatch Drones, Pulse Transceiver

The Curtana is favored by commanders and recon units. Its remarkably powerful sensor and surveillance fittings can give its pilot a near-supernatural understanding of the battlefield, in addition to its ability to communicate with a remote headquarters.

DURANDAL-CLASS LIGHT PSIMECH	Power: 10/4 free	Mass: 10/2 free
Cost: 1,605,000 Armor: 10 Weaponry Mindburner (4d10, Cone 20m, Psi) Defenses Hardened Polyceramic Overlay (-5 to enemy AP qualities) Fittings Escape Pod, Neural Activity Sensors	Speed: 3	Hit Points: 40 AC: 3
Much like its smaller psi suit brethren, the Durandal is designed with substantial free power and mass in order to accept whatever psitech fittings best suit the skills of its pilot. These additions can substantially increase the cost of the base hull, which is built to provide multiple redundant survival measures for a psychic pilot. Even a Durandal without additional fittings can act as a near-faultless early warning system for incoming enemy sentients.		

SCORN-CLASS HEAVY SHOCK MECH	Power: 40/2 free	Mass: 20/1 free
Cost: 1,586,000 Armor: 25 Weaponry Rail Cannon (4d12, AP 45, Slow, Ammo), Railgun (3d8#, AP 15, Ammo) Defenses None Fittings Breaching Tool, Integral Maintenance, Ammunition Cells x2	Speed: 2	Hit Points: 70 AC: 5
When a fortress stands between an army and victory, a Scorn is sent to correct the situation. Its massive armor plates are immune to all but specially-fitted gunnery, and its integral weaponry can smash through almost any substance known to human science. The Scorn is the product of late Second Wave military science, however, and is built for a battlefield that will only rarely see an opposing mech force. It is somewhat less optimized for facing specialized anti-mech units that are equipped with the right armor-piercing weaponry to take the beast down.		

ODIUM-CLASS HEAVY SPECIALIST MECH	Power: 20/1 free	Mass: 40/1 free
Cost: 2,485,000 Armor: 15 Weaponry Heavy Laser (3d12, AP 20) Defenses None Fittings Construction Array, Integral Maintenance, Skywatch Drones, Polyspectral Sensors, Pulse Transceiver	Speed: 4	Hit Points: 50 AC: 6
While the Odium provides much the same communications and recon abilities as the smaller Durandal, it is distinguished by the heavy mech-killing laser it mounts and the integral construction array that allows it to serve as a remote maintenance and repair facility for numerous other mechs. A single Odium can give a sufficient number of techs the platform they need to keep an entire mech force operational in the field, or assist in constructing elaborate field structures and fortifications.		

DESPITE-CLASS HEAVY PSIMECH	Power: 20/8 free	Mass: 20/8 free
Cost: 3,060,000 Armor: 15 Weaponry Finger of God (4d12, Psi, Slow), MES Knife (3d12, Psi, Melee) Defenses Hardened Polyceramic Overlay (-5 to enemy AP qualities) Fittings Neural Activity Sensors	Speed: 2	Hit Points: 60 AC: 4
These vanishingly rare mechs were always somewhat experimental, even in the late days of humanity's golden age. The sheer mass of sophisticated psitech components requires for their construction was almost impossible to acquire on the frontier, and the few Despites that are found in the modern day are almost always attached to Mandate military research facilities. While substantial mass and power are left unused to allow for pilot-specific fittings, even an unfitted Despite possesses enormous firepower. The psitech Finger of God weaponry can effortlessly bypass enemy armor, and the gigantic MES blade generated by its melee defense array can carve open a graptank with a few solid strokes.		

CHAPTER THIRTEEN

SOCIETIES

Having created a world, a GM can end up stuck for ways to flavor its societies. The worlds of Gateway and Polychrome might have drastically different physical properties, but what are the people like? What do they value, what kind of conflicts do they face, and what power structures exist to engage interstellar freebooters like the player characters? This chapter is meant to ease the way for a GM interested in giving more of a personal touch to the peoples of these distant stars.

Societies in the Sandbox

Any worldsmith can recognize the pleasure in fabricating a detailed and satisfying fictional society. Identifying unique traits, extrapolating the effects of advanced science on social patterns, and thinking about ways in which future tech might collide with timeless human nature are all fun pastimes for a creator. When building a society for a sandbox game, however, the priorities are a little different.

Your societies need to do work for you. They need to make your time at the table easier, giving you quick hooks and accessible conflicts to pass along to your players. Just as with alien races, a society that doesn't have an easily-understood hook is one that's likely to blur into an indistinct muddle to your players. It can be fine and fun to elaborate on a particular culture's traits, but it is absolutely necessary that every one of them provide clearly-labeled opportunities for adventurers to get into trouble.

The method laid out in this chapter is simply one way of ensuring that. As with any creative enterprise, you will need to smooth over the edges and fit the pieces it gives you together in a pattern that makes sense to you and fits the world you're populating. If the particular tags for a world make some choice obviously correct, you should feel free to simply pick it rather than slavishly obey the dice.

By the time you are done with this process, you should be looking at a society with a strong sense of history, a clear social character, and at least one conflict that cries out for PC involvement. You should also have a fairly clear idea of who will be around to object to PC misbehavior, and what kind of authorities a criminal band of adventurers will need to sidestep, should the situation arise.

Colonial Ambitions

The first step in creating a society for a world is to roll on the Reasons for Colonization table, assuming the reason isn't obvious from the world's tags. Getting a clear idea of the kind of motivation that the initial settlers had will help you mold their future.

Many early colonization attempts were backed by the Terran Mandate, a major planetary government, or an interstellar megacorp. These attempts were well-funded and well-equipped, with participants chosen carefully for their skills and provided with state-of-the-art equipment for surviving on their new worlds. Cruiser or capital-class transport ships moved thousands of men and women through the void, and most colonies were equipped with at least a basic array of self-defense weaponry to fend off minor pirate raids or alien attacks.

Yet many of these well-equipped colonies were wiped out by the Scream. Their patrons had no interest in making them independent of outside support, and some actively sabotaged attempts to render the colony self-sustaining. When the Scream wiped out most communication between the stars, these colonies were left to a slow and terrible death as they gradually ran out of those vital components that they had never been permitted to manufacture locally. Some were able to make field-expedient substitutes that gave them a fighting chance, but the rest are no more than dust and relics on worlds long since lost to memory.

"Wildcat" settlers and stubborn independents had no such luxury of support when they founded their colonies. It was as much as most could do to hire a transport cruiser to get them to their new home and carry the limited supplies they could purchase or scavenge. The planets available to them were either marginal dustballs that no one else wanted or more habitable planets that were far outside the edges of current human space. Many went with the latter choice, gambling that they could build themselves into a strong independent world by the time the older planets established bases that far out on the frontier.

Most of them lost the gamble. Raiders both human and alien, natural hazards that the scout teams hadn't recognized, and sheer bad luck all took their toll of the ill-prepared colonists. Still, those few fortunate souls that managed to survive their early weakness often had a much better chance of surviving the Scream than their

more pampered fellows. While their homegrown technological base was often much inferior, it was one they could support on nothing more than local resources. The lack of offworld goods and tech was a grievous blow to many, and much hardship and suffering came from it, but these wildcat worlds could live where others could only die.

Flavoring the Mix

Once you've determined the reason for colonizing the world, you should take a moment to decide what kind of people first came to inhabit it. In most cases, these colonists were likely the polyglot mix of races and ethnicities that was common on the frontier. Many of the colonists were centuries away from any Terran ancestor, and considered themselves natives of worlds and folkways that didn't even exist six hundred years ago. Almost any mix of cultural tropes and flavors might fit with such people.

If something more specific is desired, you can roll a 1d8 and pick the corresponding culture from the name lists in the Resources section of the book. Flipping through an almanac, randomly firing an internet search, or opening a telephone book to pick an ethnicity corresponding to a person's name can work too.

If you do take the route of choosing a present-day culture or nationality as the base for your new world, you should take care not to treat them as stale stereotypes. Instead, use their names and a few distinct customs or traits as touchstones for your imagination, possibly with a few very different traits added to emphasize the fact that it's been more than a thousand years since the present day.

Government in the Beginning

A society's form of government provides an easy hook for your adventures, in that it describes the kind of people who wield the force of law. A society run on republican terms is going to approach its conflicts in a different way than one splintered into feudal domains, and the government gives you a good hint on the kind of patrons that will want offworld adventurers as help. In one, the patron might be a shady representative seeking help to quietly wipe the evidence of the recent fiscal inducement offered for his vote, while the other is apt to lend more towards a wealthy warlord wanting a bigger tribute bribe squeezed out of a weak neighbor.

Just as significantly, a society's government also hints as to the kind of justice and police personnel that the PCs are likely to encounter. Bringing a ship's hydroponic life support bay onto a planet ruled by an air-processing hydraulic despotism is unlikely to go over well with the local ruler, and it is equally unlikely that his security personnel are terribly interested in the rights of the accused. A theocracy is not going to appreciate missionary vidslabs, and a military dictatorship is likely to have issues with offworlders who sell crates full of mag rifles to anyone with the credits to buy them.

The government you generate from the Government Type table may not have been intentionally adopted by the colonists. Most new settlements begin life as a frontier democracy or corporate autocratic outpost, but the strains and chaos of the first years can lead to drastic changes in government. What you roll may simply have been the ultimate result of a series of struggles.

Society Generation Summary

Determine the reason the world was colonized.

If the reason is not obvious from the world tags, roll 1d20 and check the Reasons For Colonization table.

Choose initial culture

It's possible that the initial colonists had a strong ethnic or national uniformity. Much has changed over the centuries, but choosing a modern group can give an easy flavor start for a society. Otherwise, it's likely that the group was a mixed multitude of colonists who sought a better life elsewhere.

Determine the initial form of government

If necessary, roll 1d12 to find the Government Type the colony used before the Scream. They may have intended to live under this social order, or it might simply have arisen from early political or social considerations.

Determine societal traits

Roll 1d20 two or three times to find out what traits or values the colonists prized most before the Scream.

Determine the main conflict before the Scream

Roll 1d10 on the Conflicts table to find the struggle that most deeply affected the society before the Scream. Roll 1d8 once each on the Source, Constraints, and Changes tables to get more information about the issue and its effects.

Evolve the government after the Scream

Roll 1d6 and consult the evolution table for the colony's initial government. In the chaos of the Scream, the society experienced this change.

Optionally add another conflict

Perhaps life got even harder after the Scream. You might choose to repeat the conflict step one more time to see what new challenge faces the society.

Optionally evolve the government again

It's been six hundred years since the Scream, and a lot can happen during that time. The stresses that come from recently-renewed interstellar ties can lead to a government's collapse as it proves unable to cope with the newly-opened cosmos. The PCs might find themselves instrumental in determining the future direction of the society, or might just have to dodge the fallout.

Personalize the conflicts

Take a moment to put some specifics to the world's conflict, setting up two or three NPCs and specific factions that can serve as patrons and targets for the PCs who involve themselves in the world's struggles.

Each type of government also has a list of six possible evolutions. Disasters and global crises tax existing power structures and leave openings for revolutionaries and reformers. The outcome of their efforts is rarely what these idealists might hope for, and even if they succeed in overthrowing the existing government, what comes after

might be even worse. These evolution tables will be used later in the society generation process.

For now, roll 1d12 and consult the Government Type table to see the structure first adopted by the colony.

Traits of a Society

Every society has its values and its traditions. Some societies might prize a martial spirit, honoring those members who show the most willingness to fight bravely. Others might esteem harmony and cooperation, or value pacifistic behavior. Values like these form the moral background for a culture.

An example of a trait common to many modern cultures is “Pacifism.” For most citizens of the modern developed world, intentionally killing someone is unthinkable. Many men and women have deep moral qualms about the use of lethal force even in defense of their own lives, and people who can kill without stress or horror are viewed as morally depraved or mentally ill. Such people exist, but they are very much outliers on the normal continuum of modern experience.

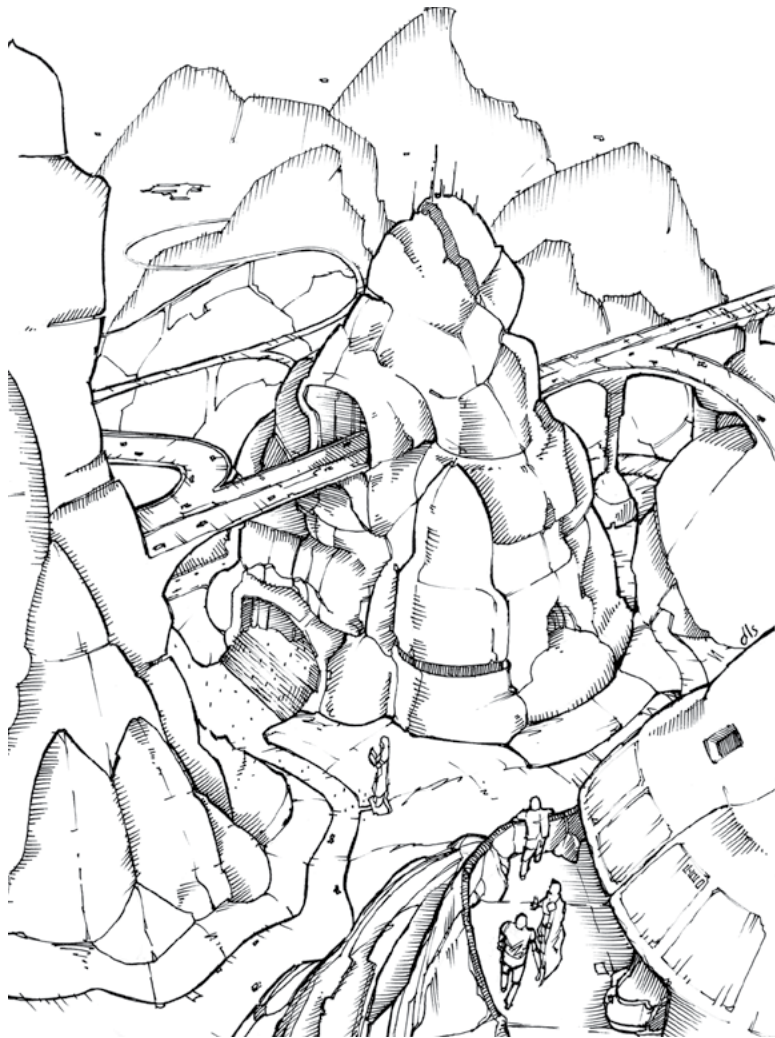
On other worlds, this may simply not be the case. The natives of Lascaux IV might be divided into warring tribal bands that think nothing of killing outsiders, viewing it as exciting and risky work that shows the real worth of a warrior. They have the blessing and support of their society, and those who excel at killing strangers are celebrated for their talents. There may well be those that have doubts about such deeds, and feel revulsion or horror at it, but they keep their feelings to themselves rather than face social ostracism and scorn from their neighbors.

The centuries of psychosocial and neurogenetic modification that were known during the latter years of the Terran Mandate may also have an effect on a society’s traits. Some humans were strongly influenced by programs intended to “improve” them, either by quashing negative traits or emphasizing positive ones. Some cultures may not even realize that they carry the genes of multiple altered neurotypes who were part of the initial colonial expedition. These changes are often so subtle that postech medical science can find no trace of them, but the imperceptibly small variations in hormone levels and neural receptors can have far-reaching effects on the society as a whole.

To find a few basic traits, roll 1d20 two or three times on the Society Traits table.

Finding the Initial Conflict

By now, you’ve established why the planet was colonized, who colonized it, what kind of government shook out in the initial development period, and two or three notable traits about the society. Now you move to the meat of things- the core conflict at the heart of the world.



Every colony has at least one conflict, one struggle that informs much of the politics and maneuvering within the society. This conflict is usually obvious to outsiders, though the natives might have been living with it so long that it simply seems to be part of daily life to them. By its nature, this should be a conflict that the PCs can influence. They may not be able to pick the winners and losers, but they should be useful and valuable agents for the side they choose to support.

In some cases, a conflict has no convenient division of antagonists. For worlds racked with privation, for example, there’s no enemy to be defeated or rival to be vanquished. There’s just the brute fact that there is not enough of a necessity for everyone on the world. In cases like these, offworlders can prove the key to breaking the deadlock with new tech, alternate sources, or the discovery of long-lost resources that would be inaccessible without their help.

To begin, roll 1d10 to find the basic nature of the world’s core conflict. This struggle likely began early, shortly after the colony’s founding, though it is possible that it is of more recent vintage.

For further elaboration, roll 1d8 three times, consulting the Details, Constraints, and Changes tables for that particular conflict. The Details table provides particulars about the substance of the conflict. The Constraints table offers a list of reasons as to why the struggle hasn’t torn the society apart yet, and the Changes table describes ways in which the conflict has scarred the society.

Evolving the Government

Next, consult the evolution table for the society's government and roll 1d6 to see how it changed under the trauma of the Scream. The planet was almost certainly thrown into chaos by the disaster, and it's unlikely that the government survived unscathed. Whatever new form of rule was adopted was done so as a direct response to the new conditions, though likely not without years of warfare, faction-building, and brutal reprisals against adherents of the old regime.

This period tends to leave a lot of ruins lying around, including entire cities destroyed in the chaos or depopulated by famine or plagues. The populace might look back to the old government as keeper of a lost golden age of liberty and prosperity- or they might shudder at the awful crimes committed by their long-dead masters. In either case, it's not uncommon for priceless relics and tokens of legitimacy to have been lost in the fighting, there to await intrepid treasure-hunters equipped with scanning technology long since lost to the natives.

It's been six centuries since the Scream, but it's not impossible that the old regime might still have adherents. Some might be openly loyal to the old ways, secure behind natural defenses or on marginal land unwanted by anyone else. Others might dwell within the new society, passing on their allegiance from generation to generation, and always willing to see the possibilities in offworlder allies.

Adding Fresh Conflict

Life after the Scream was characterized by brutal privation, chaos, and hardship on most frontier worlds- and those were the ones lucky enough to survive. Precious few societies made it through without fresh scars. Some might face nothing more than the old conflicts and immemorial struggles of their ancestors, but many were given fresh reasons to tear each other apart.

If you want to add additional grief to the world, you can roll once again on the Conflict table, selecting new Details, Constraints, and Changes. Optionally, the conflict might be of comparatively recent vintage, without any present constraints to keep it in check. The PCs might land on the world just as it begins to ramp up to societal collapse from the strain of the struggle. It may be up to the offworlders to find a constraint to keep the world from going up in flames, or else to find their own best profit in the ensuing anarchy.

Final Touches

The last step in creating a culture is to translate your hard work into tangibly useful material for your gaming sessions. Take a look at the world tags for the planet and start filling out a few useful enemies and friends with NPCs hailing from your new-fashioned culture. Give them motivations revolving around their societal conflicts or the direction of popular feeling. By connecting these NPCs with a specific culture, you ensure yourself an easier time in running them if and when the PCs ever make their acquaintance.

It can also be useful to establish a few important groups or organizations that can serve as patrons or antagonists to the PCs. The societal conflict provides a natural fault line between factions, as do possibilities of corrupt government officials, upright rebels, or survivors of fallen governments. These organizations don't need to be fleshed out very deeply at first- just a name and a few sentences to make clear their program of action. You can always come back and expand them once the PCs start to take an interest.

Finally, feel free to tweak the tech level of the planet if the society and government doesn't look like the sort of arrangement that would maintain complex postech industry. Conversely, a steadily-stable republic might merit a better result than the tech level 2 neobarbarism that the world creation dice recommended.

Founding the World

Even in the golden years of the Second Wave of human expansion, colonizing an alien world was costly and dangerous. Countless worlds proved too harsh or too capricious for human habitation, and the skeletal remains of empty colony habs and eroded terraforming equipment are common sights to explorers. In order to convince men and women to leave the lives they knew, a world needed to offer them something they couldn't get back home.

The table below offers twenty of the more common reasons for a world's colonization. The choice may be obvious from the world tags you've already generated, or you might choose to roll randomly. Multiple rolls might be used if you wish to combine several motivations for its colonization. Once you've figured out the reason that this world called its first settlers, you'll have a much easier time fleshing out the ways in which that first start grew.

Castaways are forced to take whatever world can bear them. A spike drive may have disastrously misdrilled, the original destination might have been overwhelmed by hostile aliens, or their entire expedition might have been hoodwinked by unscrupulous wildcat scouts. For whatever reason, the colony was never really meant to be founded in the first place. Such worlds are often harsh, barely habitable, and devoid of any attraction. Still, as a colony develops, the natives might discover that the initial scouts had overlooked something very important indeed.

Corporate factory worlds were chosen for their utility in expanding the frontier. They were close enough to the markets to support the manufacture of light, precious trade goods that could be carried in conventional spike drive ships, or else they might have actually merited a jump gate of their own to take their wares back to the core in massive, driveless freighters. Most factory worlds are rich in industrial materials, with a minimally sufficient biosphere.

Ethnic and national purity drove some splinter cultures to transplant their "pure race" to the stars. Angrily contemptuous of the ossified divisions of Old Terra and the polyglot mingling of the frontier, these men and women resolved to maintain their traditional ways and bloodlines far from the contaminating influence of other worlds. Despite their attempt to freeze their cultures in an "authentic" form, the inexorable pressures of colonization and survival have left most of these worlds pursuing folkways that would be incomprehensible to their ancestors.

Excavation sites mark worlds with extensive alien ruins or early First Wave remains. For planets once dominated by an advanced alien race, it was often worthwhile to establish an entire colony revolving around unearthing and analyzing the secrets of the ancient dead. For worlds that had once known human inhabitants, Second Wave colonists could take advantage of the work already performed in making their new homes. Most such "lost colonies" perished due to infighting or pirate raids, but some Second Wave colonists were left to discover other, more sinister reasons for the disappearance of those who came before.

Exiles were on the losing end. War, ethnic cleansing, alien pressure, a world turned uninhabitable by stellar caprice or volcanic action... whatever the reason, the men and women who came here were forced out of their old homes. Exile worlds are usually marginal planets, the leavings and leftovers of the scout reports, or else hidden worlds off the conventional charts where a pursued people might hope to evade their tormentors.

Exotic genotypes were not unknown on the frontier, where worlds experimented with different forms of humanity with a willingness unknown in the more cautious core. Mer-people, human-animal hybrids, "improved" versions of human stock, genotypes designed for living in high or low gravity- all these variants could be found somewhere on the frontier. Genotypic modifications always came with a price, however, and these genetic flaws and drawbacks often left the new humans with a preference for the society of their own kind, where they could more easily be people rather than freaks. Other colonies were founded with darker intent, with maltech researchers pursuing forbidden lines of investigation into the genetic modification of humans into slaves and tools.

Homeworld overpopulation was uncommon on the frontier, as it presumed either a very old world or one very limited in its carrying capacity. Still, some planets were just too unfriendly to bear the weight of the population, and the first colonists of this world chose the planet as the best available landing space for the excess.

Invasion forces never really wanted to live on this world. They were just unfortunate enough to be stuck there when the Scream severed so much of humankind's communications. Many such forces were garrison commands charged with holding down a freshly-conquered frontier world for some distant stellar polity, while others were there to drive out aliens and take the world for

humanity. It is not unusual for descendants of both sides to make up the inhabitants of the world. Necessity may have forced them to cooperate, but old hates are often woven deep into the structure of their societies.

Liaison outposts were originally intended as self-sustaining forward bases for contact with other stellar polities or advanced alien civilizations. Most were populated largely with diplomats, scientists, and a leavening of military and espionage personnel. This confused hodgepodge often made an unpromising start for a suddenly-

1d20	REASON FOR COLONIZATION	1d20	REASON FOR COLONIZATION
1	Castaways	11	Military outpost
2	Corporate factory world	12	Political liberty
3	Ethnic or national purity	13	Precious export
4	Excavation site	14	Prison planet
5	Exiles	15	Refueling outpost
6	Exotic genotype	16	Religious liberty
7	Homeworld overpopulation	17	Research outpost
8	Invasion force	18	Rich natural resources
9	Liaison outpost	19	Social liberty
10	Mandate malcontents	20	Trade hub

isolated world, but many of them were able to work with their counterparts to build a society that was a harmonious blend of both progenitors.

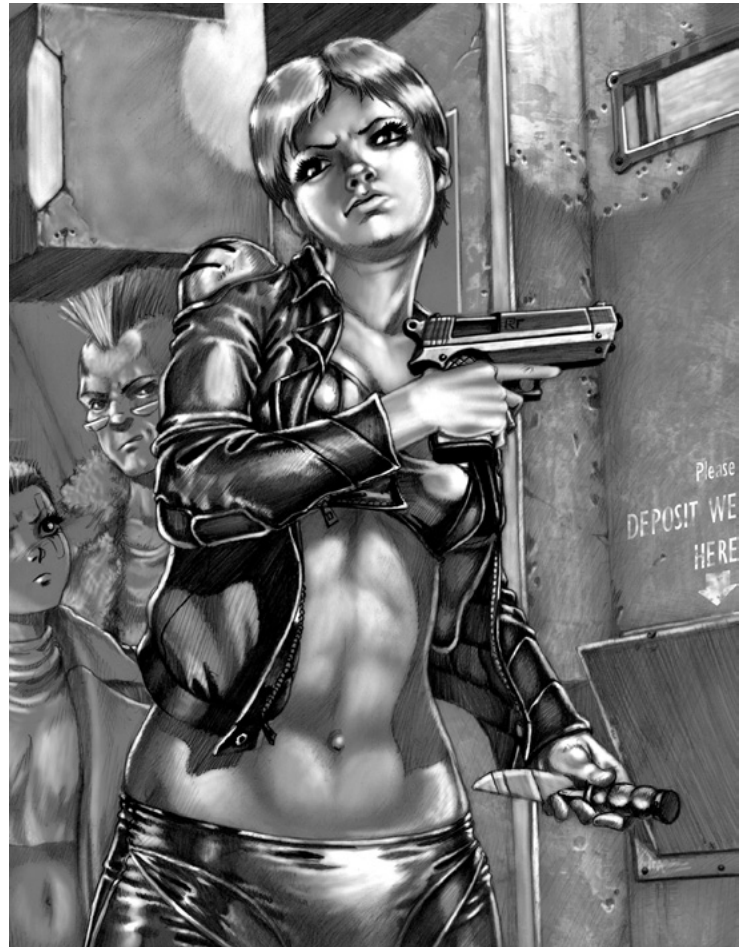
Mandate malcontents were troublemakers, ones not violent or dangerous enough to merit a prison planet, but still more trouble than they were worth. Cultural innovators, AI management protestors, economic deviants, and all the other square pegs of the late Second Wave were often rounded up to be dispatched to some marginally habitable world. Toward the end of the Second Wave, the Mandate was so ossified that these shipments of malcontents formed the largest part of its outward migration. Most of them had very little in common with each other, but those colonies that survived their initial conflicts often matured into vigorously individualistic but cooperative societies.

Military outposts were founded by the Terran Mandate or some local stellar power in order to keep a forward base near trouble. Shipyards, armories, factory farms, and all the other support necessary for keeping an army on its feet and a fleet in space were the usual supplements to the initial colonists' efforts. These worlds often became the nucleus of later stellar polities—those that survived the initial trauma of their isolation. Many collapsed into chaos and general warfare as panicked soldiers or ambitious generals proved more than the society's infrastructure could bear.

Political liberty was an ambition that the Terran Mandate never did manage to completely quash. There were always those stubborn splinter groups who did not care to obey a distant master, those that insisted on self-rule and local independence. Rather than fight them, the Mandate often simply shipped them to the next barely-habitable rock and let them taste the fruits of their much-loved liberty. Many of these patchwork colonies collapsed under the squabbling, prickly independence of the early colonists, but those that were able to overcome that initial division often displayed a sense of unity and respect for the local laws that they never would have shown to their former master.

Precious exports drove the settlement of many worlds. A rare plant extract, large lodes of rare minerals, costly natural crystals or exotic gas extracts... all of these things tempted miners and gatherers to make a new life. When the Scream cut ties with the rest of the cosmos, many of these worlds died, unable to survive the often-hostile environments in which such rarities are found. Even those that lived usually found their precious export to be entirely useless to them without the array of pretech manufacturing facilities necessary to make use of it. Once ties are reestablished with the rest of the sector, these worlds can find themselves wealthy overnight.

Prison planets were dumping grounds for the worst criminals and terrorists of the Terran Mandate, and often got brisk business from their neighboring frontier worlds. Prisoners were tossed on the surface with nothing more than the bare necessities of life, there to pick a living from the surface or die unmourned. Even the children born to the “inmates” could expect only to live out their lives under the baleful eyes of the security satellites. When the Scream came, many of these planets scarcely noticed the difference. Those that still support life are often ringed with dangerous warden stations



programmed to repel unauthorized visitors. Some such stations have gone dead with the long centuries, but others still stand watch over their charges below.

Refueling outposts existed on the very far fringes of frontier space, usually ramshackle corporate affairs with fuel, food, atmosphere, and entertainment for passing spike drive craft. Prospectors and wildcatters often made these outposts their temporary home, and even the smallest usually had enough firepower to hold off minor pirate raids. The population of such outposts was usually very small, leading to a limited genetic pool that often gives the resultant population a distinct appearance. Those without the surviving postech medical science to deal with the problem often experience significant congenital defects.

Religious liberty was not to be found on most of the core worlds of the Terran Mandate. Faiths were restricted to “appropriate cultural groups” as identified by Mandate officials and AI managers, and proselytization and conversion were forbidden. The urge to believe was unquenchable, however, and colonial groups could petition to be assigned to a colony world where they could establish their own faith. The tight cohesion and shared community made these religious colonies surprisingly successful, but the centuries of the Scream often saw faiths decaying, splintering, or evolving into shapes utterly inimical to the original founders' intentions.

Research outposts were usually placed on planets with unique natural features, such as freakish geology or weather patterns. Others were placed to observe interesting stellar phenomenon.

Some were established in order to conduct extremely dangerous research, and a few were never intended as anything but creches for maltech abominations and forbidden science. The tech levels of such planets were often well-preserved through the centuries of the Scream, but the small initial populations often result in the same inbreeding and medical issues that face many refueling outposts.

Rich natural resources drew many of the rank and file of colonies. While these worlds rarely had any especially valuable exports, the sheer volume of edible biomass, breathable atmosphere, and useful industrial materials made such worlds ideal for general colonization. These worlds rarely faced the raw struggle with privation and want that touched less fortunate realms, but that luxury was often simply translated into war over more trivial differences.

Social liberty was equally constrained in the Mandate, each world and group prescribed “socially harmonious” patterns to follow to minimize internal conflicts. Some demanded the right to follow more extreme paths- “-isms” of every kind and description, alternate sexualities, or bizarre economic structures. Almost all of these worlds have at least one habit or social structure that defies comprehension in outsiders. Sometimes these quirks are harmless expressions of free will and liberty, but at other times these planets serve as havens for monstrous evil.

Trade hubs were once major markets for surrounding planets, brokerage worlds meant to serve far-flung sectors. When the Scream hit, many were forced to survive on what they had in their warehouses. The result can be a world of drastically uneven tech and many lost caches of ancient wealth.

Government Types and Evolution

Initially, the colony must have been ordered under some kind of government, though not all these governments survived the initial strain of colonization unchanged. Many well-meaning colonial democracies deformed into ruthless autocracies under the pressure of survival on an alien world, or shattered into quarreling clans and factions.

The government type table gives a list of the different forms of government that a world might have either initially adopted or come to experience shortly after colonization. For each type of government, there is an entry that follows with a description of

that government type, examples of how it might manifest on the frontier, and a list of potential evolutions.

Whenever a society experiences a greatly traumatic strain, there is the chance that it might evolve its governmental structure. Disasters like the Scream give malcontents and revolutionaries an opening to exploit, even if the end result is rarely what they originally envisioned. The entire enterprise is just as likely to collapse in a welter of chaos, only to be hammered into some new form by the harsh demands of the circumstances. The evolutions table for each government type provides a list of likely scenarios for this process, and the government that is likely to result in the end.

Each government entry also includes notes on the judicial officers, laws, and security personnel that might be expected for that form of government. Player characters have an unwholesome tendency to get into trouble with the law on a given world, and it can be useful to have a quick reference as to the kind of police and judiciary they might have to face.

For a world that has evolved into multiple major societies, you may wish to trace this evolution separately for each segment. Alternately, a particular form of government might be obviously correct for a society based on the tags or image you envision for it.

1d12	GOVERNMENT TYPES
1	Autocracy
2	Corporatism
3	Democracy
4	Feudalism
5	Hydraulic Despotism
6	Military Dictatorship
7	Monarchy
8	Oligarchy
9	Republic
10	Technocracy
11	Theocracy
12	Tribalism

Autocracy

Whether tyrant, dictator, generalissimo, or warlord, the autocrat rules alone. Unlike a monarch, he has no special legitimacy of blood, and his heirs must trust in his ability to suppress rivals if any of them are to succeed the throne. An autocrat's security usually revolves around his ability to keep all potential rivals neatly balanced in mutual enmity.

Long-standing autocracies are usually so because of the tacit consent of the governed. The citizens might all hate each other to the extent that they only feel safe with a "strong man" to hold them apart, or they might believe it simply right that the strongest and cleverest among them should rule alone. When one autocrat passes, the populace simply turns their allegiance to the next to seize power. An autocrat who loses this unspoken consent can expect to soon be on the sharp end of a bloody rebellion.

The law in an autocracy usually revolves around quashing threats to the autocrat's power. Weaponry is often forbidden to any but the appointed security personnel, and the law is often quite flexible about what kind of behavior might constitute a crime. Judges are functionaries chosen for their pliability, and the police are sometimes more heavily armed and better-trained than the army, in order to prevent a military coup.

1d6	AUTOCRACY EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	The autocrat is overthrown by a popular uprising that rapidly degenerates into a Military Dictatorship as the strongest remaining military force seizes control.
4	The autocrat steps down out of conviction or weakness, resulting in a nascent Republic of opposition group leaders.
5	The autocrat loses control of his underlings as the government fragments into a Feudal array of independent bureau chiefs or warlords.
6	The autocrat seeks the legitimacy of religious support, but the government is consumed by the passions it provokes and becomes a Theocracy .

Corporatism

Despite the name, "corporatism" does not necessarily have anything to do with commercial corporations. Instead, it implies a society divided up into various interest groups and factions, each one representing a group with similar interests. These factions all contribute to the governance of the world, theoretically in proportion to their importance.

On the frontier, corporatism tends to evolve as the recognition of de-facto power blocks and coalitions. The government might formally be organized as a republic or a democracy, but everyone understands that if the Union of Agricultural Workers or the Tendai People's Front doesn't like a piece of legislation, the representatives it supports will kill it. Politicking between blocks can be savage at times, a class war subsumed into marginally less bloody lawmaking.

Corporatist worlds tend to have laws that are highly protectionist toward the interests of their ruling factions. Automation and advanced tech that would put certain members out of work might be banned outright. Judges and security personnel are usually openly or quietly affiliated with specific factions, and the quality of justice a trespasser gets can vary widely with the degree to which they have offended the powers that be.

1d6	CORPORATISM EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	The corporate blocs crumble as old special interests and affiliation ties cease to have meaning. Their representatives are now elected in an effective Republic .
4	The elite of the corporate bodies entrench themselves as bureaucrats and executives over the population, becoming a self-perpetuating Technocracy .
5	The military evolves into its own corporate body, seizing control from the others to form a new Military Dictatorship .
6	One corporate body gradually becomes preeminent, forming the basis of an ongoing Autocracy .

Democracy

Especially popular for small, egalitarian colonies, democracy allows every voting member to have an equal voice in the laws of the world. Executives might be elected to handle day-to-day administration, but every important decision is made with as near a full body of voters as possible. Such an organization tends to practical only when advanced technology allows for the gathering of far-flung votes in a timely fashion, or else when the population is small enough to allow for regular mass meetings.

True democracies on the frontier are not unknown, as many worlds have populations modest enough to gather them all together at once. Others have still retained enough technological expertise to allow for distributed voting stations and mass media communication of the issues at hand. For worlds without those qualities, however, democracies tend to rapidly evolve into republics or corporatist structures.

Laws in a democracy are prone to rapid fluctuation as the popular mood directs. Disasters or shocking crimes soon produce a flurry of new regulations that can catch offworlders unaware. The judicial and security personnel of such worlds tend to operate with a light touch, many of them composed of volunteers or other part-time functionaries who have won their place through the general approval and good estimation of their neighbors. Harming them can sometimes touch off a firestorm of violent reprisal from the common citizenry.

Feudalism

The world's government is spread among multiple power bases, each one nominally part of the same whole but with few restrictions on their actions within their own domains. Their authority does not rest purely with blood or military power, as in a tribal arrangement, but instead on the mutual recognition of their peers and their subjects. A particular lord might be preeminent among the others, but his power is never sufficient to subdue the rest of the feudal structure. In those cases when he is able to do so, the government soon alters into a monarchy or military dictatorship.

Feudalism tends to evolve on worlds where communication and powers of distant compulsion break down. Men and women seek the safety of a warlord or military commander, and these lords form a modus vivendi amongst themselves. They provide protection and justice for their subjects in exchange for heavy tribute. Both open and covert conflict is common among feudal lords, and the commoners are often left to bear the worst of it.

Magistrates in feudal societies are usually lesser relations of the lord or trusted vassals of long experience. Police and courts are almost always specific to a single lord, and few neighbors will permit them to pursue a criminal across the borders of a domain. Canny outlaws can often use this to win their escape- at least, until the lord of their new domain decides that they're more trouble to him than to his rivals.

1d6	DEMOCRACY EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	The population becomes too unwieldy or dispersed to participate in direct democracy any more, and the government becomes a Republic .
4	Special interest groups and economic classes harden their lines, transforming the democracy into a Corporatist government based on representatives of those groups.
5	A charismatic demagogue forms the nucleus of an Autocracy that abolishes the relicts of democratic government.
6	Passionate religious enthusiasm among the populace is responsible for the democracy's transformation into an eventual Theocracy .

1d6	FEUDALISM EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	A leader from among the feudal families rises to pre-eminence, conferring legitimacy on his or her descendants in a new Monarchy .
4	Ties of trade and exchange strengthen those feudal lords willing to cooperate over those who stand aloof, transforming them into a united Oligarchy .
5	Savage struggling among the feudal rulers eventually gives way to an Autocrat with legitimacy resting purely on the military or economic strength of their own domain.
6	Individual feudal lords prove too weak to suppress the commoners, while those who embrace the popular will gain the benefit of their enthusiastic support. Over time, these rulers are effectively chosen by the populace, forming the core of a new Republic .

Hydraulic Despotism

Food, water, and air- these things are necessary for life. On alien worlds, these necessities can often be far harder to obtain than they are beneath Earth's kinder skies. A ruler who manages to seize control of one or more of these necessities can hold entire worlds in helpless thrall.

Hydraulic despotisms appear most often on worlds without a breathable atmosphere, or with minimal water supplies, or those lacking in some important trace nutrient. Control of this necessity is ruthlessly restricted by the despot and his minions, and they will go to extraordinary lengths to ensure that no competing source can arise. Once the monopoly is broken, however, these despotisms tend to crumble overnight as the bitter populace takes its vengeance on the tyrant and his servants.

The prime law of any hydraulic despotism is the control of whatever substance the despot uses to rule the populace. Offworlders who bring in alternate supplies are met with brutal suppression, but those who actually bring in alternate means of producing the necessity are a mortal threat to the state's very survival, and treated accordingly. For commoners, punishments often revolve around restricting access to the necessity, with judges and security personnel rewarded with greater abundance.

1D6	HYDRAULIC DESPOTISM EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	Control over the vital resource is fragmented, no longer in the hands of a single controlling body. Multiple sources of the good now exist, forming the basis of a new Feudalism .
4	Control over the resource is lost, but the administrative and technical expertise of the former rulers situates them to become the Technocratic lords of the new government.
5	The resource is now widely available, and each individual source demands its own say in government, forming the interest blocs of a new Corporatism .
6	With the loss of control over the vital resource, power suddenly becomes localized in military strength, giving birth to a new Military Dictatorship by the strongest martial power.

Military Dictatorship

Gold can't always get you swords, but swords can always get you gold. The military dictatorship rules by brute strength of arms, the only necessary legitimacy being the control of the greatest military power in the society.

Particularly ancient military dictatorships on the frontier derive from the military commands established before the Scream. Many of these worlds have come to respect less martial forms of legitimacy, but a few still entrust their rule to the master of the ancient pretech war machines and orbital satellites which they have still managed to keep functional. Other military dictatorships are of more recent vintage, the product of factional, ethnic, or religious warfare that has answered only to the last argument of kings.

Many military dictatorships keep a strict control on those permitted to bear weapons, recognizing the importance of preventing any challenge to their martial preeminence. Magistrates and police officers are usually members of the military, and justice procedures tend to be short, direct, and harsh. Still, most effective military dictatorships operate by strict protocols and regulations, and a canny miscreant can sometimes play one rule off against another.

1D6	MILITARY DICTATORSHIP EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	Long possession of military authority confers a mystique on the leader's bloodline, leading to a Monarchy .
4	Dependent on the production of the civilian sector, the dictatorship gradually cedes so many rights to the civilians that the government gives way to a full Republic in which it is simply one faction.
5	The military falls to ruthless infighting, gradually fragmenting into multiple Feudal warlords.
6	The military leadership concerns itself with material wealth and commercial control, transforming into a group of Oligarchs .

Monarchy

Where an autocrat or military dictatorship rules by force of arms, wealth, or the strength of supporters, a monarch is invested with a certain mystique of legitimacy. Some worlds retain a variation of the divine right of kings, while others have monarchs consecrated by simple length of tradition. A monarch is special by virtue of blood or anointed role, and a king without an army is still no less a king.

Societies that support monarchies are, by their very nature, inclined to a strong respect for tradition and customary legitimacy. The same spirit of acquiescence and respect tends to infuse the rest of the culture, with men and women keenly aware of their duties toward the society and deeply motivated by a respect for custom. There are very few cultures where only the monarchy itself inspires reverence beyond its actual power.

Crumbling monarchies tend to take down more than just the king. Where another claimant can be found with similar blood or right, a monarchy might survive with nothing more than the conventional scars of a succession war. But when the very idea of kingship is destroyed, it tends to take a great many other unquestioned verities with it, and cultures can find themselves suddenly sunk into mass confusion and a new and terrifying liberty.

Oligarchy

Monarchies have kings, autocracies have dictators, and military dictatorships have generalissimos and grand marshals. Oligarchies, on the other hand, have a less clearly visible apex. Authority might be invested in a formal council or it might be dispersed more informally through a collection of men and women capable of directing the society's strength.

Merchant houses, nobility individually as strong as the nominal king, controllers of mass media, great landowners or mighty barons of industry- these are the ones that usually form an oligarchy. Unlike in a feudalistic state, however, these oligarchs tend to all be part of the same system of power rather than each resting their authority on their own personal retainers. A merchant oligarchy might consist of several powerful corporations, for example, but all of them would rely on a shared military and legal system and the same basic channels of influence.

Oligarchies die quickly compared to the dispersed power centers of a feudal society. Once the fundamental structure in which they operate is destroyed, their individual standings cease to have meaning beyond whatever strength they can bring from their own wealth and retainers. Control of the courts, or the media, or the military ceases to be useful when those groups crumble away in the chaos of revolution.

1d6	MONARCHY EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the change without essential alteration.
3	Important relatives of the monarch begin to form their own personal power bases, fragmenting the government into Feudalism .
4	The monarchy gradually cedes more and more power to representative councils and parliaments until the government is effectively a Republic .
5	A usurpation or contested bloodline robs the monarchy of its hereditary legitimacy, leaving it to rule by force of arms as a Military Dictatorship .
6	The monarch becomes so cloistered behind rite and custom that he or she loses control over the government, which becomes a bureaucratic Technocracy .

1d6	OLIGARCHY EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the change without essential alteration.
3	The oligarchs are ruthlessly subdued by the strongest among them, who rises to found a persistent Autocracy .
4	The oligarchy calcifies until power and prestige become based on heredity, giving way to an eventual Monarchy of the foremost.
5	The oligarchy begins to factionalize on the basis of popular support and economic interests, giving way to the multiple power blocs of Corporatism .
6	The oligarchy fragments as the individual participants begin to refuse to cooperate, leading to a Feudalism among the survivors.

Republic

Most readers are familiar with the nature and traits of a republic, and it's easy enough to transpose the quarreling and fractious doings of a particular republican nation's politics into a stellar context.

Many republics on the frontier tend to be de-facto in nature, even if their outward appearance is something else. The regular infighting and disputes natural to this form of government help to identify and defuse conflicts in compromises that come short of open fighting. Other forms of government might maintain a smoother external facade, but they often prove too brittle to withstand the sudden strains and disasters that come with life on the edge of human space.

1d6	REPUBLIC EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	Republican government becomes hopelessly deadlocked, and the bureaucracy evolves into a self-perpetuating Techocratic elite that wields the real power.
4	Republican corruption or the ambition of the military results in a coup, leading to a Military Dictatorship .
5	Each representative gathers their own fief of supporters and resources, transforming government into a Feudal confederacy.
6	Representatives become puppets for corporations or special interest groups, leading to Corporatism .

Technocracy

Whether a centralized communist economy or an AI-run hive world, this society relies upon a theoretically meritocratic elite to make important decisions. The best and the brightest are identified through various means and then elevated to resolve the planet's problems in whatever way they see fit.

Most technocracies need a little more than goodwill to maintain control, and so the technocrats often maintain a technological chokehold on the populace. Education and technical skills above a certain point are the restricted province of the elite. Some important industrial processes might be restricted to the technocrats, while in other cases, the populace simply might not trust anyone else to fairly apportion resources.

Technocracies tend to be well-aware of the sources of their authority, and strictly prohibit any import of disruptive technology. Some might attempt to coopt skilled offworlders into their organization, while others might prefer a more terminal solution to interlopers. Magistrates and security personnel tend to be much better-equipped than ordinary commoners and often have access to large amounts of firepower held in trust against rebellions or riots.

1d6	TECHNOCRACY EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	The technocracy gradually ceases to recruit outsiders, transforming into a closed Oligarchy .
4	The expertise of the technocracy is slowly absorbed under a thick layer of ritual and obfuscation, transforming it into a Theocracy legitimated by faith.
5	The technocrats methodically work to seize full control and technical domination of some resource vital to life on that world, transforming into a Hydraulic Despotism .
6	The technocrats develop close ties with individual corporations or special interest groups, ties that eventually absorb them into a burgeoning Corporatist state.

Theocracy

This society bows to the word of God as interpreted by His clergy. Those societies that are not entirely composed of believers tend to establish distinct second-class citizenship for the faithless, assuming they are tolerated at all. If a GM is uncertain what sort of religion might be appropriate for the planet, the Resources section in the back of the book includes tables for random religion and heresy generation.

Some theocracies are corrupt and decadent, with clergy that don't really believe in their scripture and faithful who doubt the truth of their shepherds' words. Others are zealously vibrant, convinced of the manifest truth of their faith and the need to adhere to its teachings. Rivals that attempt to usurp this power often have to go to the same source, either preaching the corruption of the existing rulers or offering a better, "purer" interpretation of the faith.

The laws of a theocracy tend to be bizarre to outworld eyes, often forbidding perfectly innocuous things and permitting activities that might shock outsiders. Punishments tend to revolve around inculcating a true spirit of repentance and sorrow in the criminal, the better to save a wayward soul. Enforcers consist not only of the official security apparatus, but also the countless faithful eyes in the populace itself, often ready to denounce some neighbor or stranger for trespasses real or imagined.

Tribalism

Perhaps the oldest and most fundamental form of societal structure, tribalism exists in many forms among the stars. At its core, tribalism is a matter of relying upon kindred and neighbors against the frightening ambiguities of outsiders. Many worlds that claim some lofty and complex form of government are actually nothing more than tribal confederations at the core, loose compacts of uneasy communities and clans that only really trust their own.

Tribals have a difficult time maintaining sophisticated technological bases or elaborate social structures. Individual tribes rarely extend farther than a local community's borders or an easily-traced line of kinship. Outsiders are dangerous, because they cannot be trusted to obey the customs of the tribe or respect the tribe's leadership. The farther away a person is from helping in the day to day survival of his neighbors, the less affinity the tribe is apt to feel for him. Communication also tends to be spotty, with events on one side of the world appearing only as garbled traveller's tales in more distant lands.

Tribes are usually small enough to rely on tradition and social pressure to maintain order. Severe trespasses might be punished with exile, forcing the outlaw to face a suspicious and hostile world alone. Outsiders can have a difficult time understanding all the laws and customs of a tribe, as so much of it is often embedded in unspoken tradition rather than easily-parsed formal law. The first clue they get about a crime is often the instant violence from the outraged men and women around them.

1D6	THEOCRACY EVOLUTIONS
1	Anarchy! The government collapses. On a 4+ on 1d6, it is replaced by a Tribalism centered around individual settlements or kinship groupings. On 3 or less, zealous revolutionaries are successful in entrenching their own ideals; roll randomly on the government type table.
2	The government weathers the crisis without change.
3	The theocracy splinters into a Tribalism based around numerous local sects and hierarchies, which may or may not view each other kindly.
4	The theocracy gradually loses its religious legitimacy, becoming an Autocracy based on military or economic might shaded by a patina of religion.
5	Individual sects and congregations force the theocracy to divest itself of its autocratic power, becoming a Republic made up of representatives chosen by the different groups.
6	The government gradually breaks up into multiple regional hierarchs, each of whom maintains Feudal rights over the surrounding faithful.

1D6	TRIBALISM EVOLUTIONS
1	The isolated, fractious groups fail to come together in some more complex governmental form.
2	The tribes make a false start at some other form of government that persists briefly before the guiding leaders die or the bloc that formed them collapses; roll randomly on the government type table to see what this brief interlude was like.
3	The tribes work out a wary confederation of representatives that strengthens into a Republic .
4	Individual tribal groupings form the interest blocs and corporate entities that congeal into a Corporatist government.
5	A charismatic conqueror binds the tribes together in a nascent Military Dictatorship .
6	An inspired prophet brings a faith that spreads rapidly through the tribes, binding them together in ties of mutual belief that evolve into a Theocracy .

Societal Traits

Roll below on the table to determine a few of the most important values to this culture. Two or three rolls are usually sufficient to give a rounded character to the men and women of the society. Contradictory traits are by no means impossible within one culture, aspects that rise and shrink based on circumstances or contexts.

1d20	SOCIETAL TRAITS
1	Ambitious. People are encouraged to seek power and wealth, and respect is given to those who succeed.
2	Animistic. The society has a deep love and reverence for their homeworld, and deplore any misuse of it.
3	Ascetic. Worldly pleasures and wealth are considered largely unnecessary or immoral, and are shunned.
4	Conformist. Any deviation from the traditions and beliefs of the society is punished.
5	Cosmopolitan. The society is inviting towards outsiders and eager to sample elements of other cultures.
6	Cruel. The pain and suffering of others is considered entertaining, especially those outside the group.
7	Curious. People are distinctly inquisitive and given to exploration and research- and spying on each other.
8	Envious. People who accumulate too much wealth or influence are often torn down by envious neighbors.
9	Fractious. The society is prone to sharp, harsh disputes and a shifting mosaic of ever-changing alliances.
10	Harmonious. Open conflict is shunned, as is direct disagreement. Disputes are settled in subtler fashion.
11	Hedonistic. The society prizes pleasures of all kinds above considerations of prudence or thrift.
12	Honorable. People feel a keen responsibility toward their duties and their personal integrity.
13	Individualistic. Members of the society can adopt eccentricities and strange beliefs without censure.
14	Pacifistic. The society has a horror of killing, and people do not consider lethal violence an acceptable tool.
15	Rational. The society is highly rationalistic and not given to religious or magical thinking.
16	Resigned. People lack ambition or hope, and endure their present difficulties with stoic patience.
17	Self-confident. The society is convinced that is a model of virtue and excellence, and that other, lesser cultures are in need of being reformed along its lines.
18	Self-loathing. The society feels that it has failed itself, that it is detestable or contemptible and in need of reformation by other, more enlightened societies.
19	Suspicious. People expect that others usually mean to take advantage of them, and are always anticipating treachery from acquaintances.
20	Warlike. People respect and admire a capacity for physical aggression and lethal violence.



Conflicts

Nothing is ever easy on the frontier, and still less in the shadow of the Scream. Societies need conflicts to draw in player characters and give them some sort of excitement to experience and influence. The following tables give a description of ten different kinds of basic conflicts. For each conflict, tables are provided that give details, constraints, and societal changes appropriate to the struggle.

Most worlds have a single conflict, and a GM can fill in the Friends and Enemies of adventures with figures drawn from this struggle. Some exceptionally unfortunate or fractious worlds might have two or even more conflicts bedeviling it.

1d10	CONFLICTS
1	Bigotry
2	Freedom
3	Inequality
4	Land
5	Nationalism
6	Privation
7	Resentment
8	Resources
9	Schism
10	War

Bigotry			
Even on the polyglot and commingled worlds of the frontier, the temptation to scorn a particular race, ethnicity, or community can be irresistible to a society. It can be a sublime satisfaction amid hardship and poverty to know that simple birth elevates a person above a lesser race. Besides, everyone knows that they're all thieves and panderers.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	A small but vigorous religion is considered a dangerous social menace.	The scorned group has significant military or financial power.	Intermarriage and social dealings with the scorned are forbidden.
2	A particular ethnicity is thought to be unfit for more than brute labor.	Tradition reserves certain important roles for members of the scorned group.	Communities have ritualized festivals of execration and mockery.
3	Locals from a particular region are viewed as stupid, treacherous, or violent.	The locals have a sense of paternalistic obligation toward their "lessers".	Families celebrate the "purity" of their lineage.
4	A gengineered strain of humanity is counted unworthy of true human rights.	The oppressed have been convinced that their treatment is only just.	The scorned are forced to wander from community to community.
5	Citizens of a conquered nation or community are viewed as contemptible weaklings.	The scorned group is prone to outbreaks of savage reprisal against the bigots.	A certain mode of dress or behavior common to the scorned is forbidden to others.
6	An alien enclave is regarded in the worst possible light, their traits exaggerated as moral flaws.	Both the scorned and the bigots have roughly equal power and influence, though perhaps in different spheres.	The scorned are forbidden from accumulating wealth or property beyond what they need for bare survival.
7	The ruling elite and their functionaries view the common people as beasts.	The scorned have ordered their own culture in ways that resist the bigots.	Contracts and promises to the scorned can be nullified when convenient.
8	Forbidden maltech genetic science has been used to breed a race of cognitively limited or physically disabled humans.	A recent pogrom has provoked an uneasy sense of going too far among the bigots.	Members of the scorned are taken for concubines, though openly admitting as much is social suicide.

Freedom			
The hunger for freedom in the human heart can be buried very deep by fear, oppression, and greed. Still, in some societies, it boils up despite the best efforts of those rulers who prefer more tractable lessers. Some group in the society is fighting for liberty, independence or the freedom to adopt or maintain certain beliefs or modes of life. Such clean intentions can sometimes devolve into raw terrorism.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	Slavery is an accepted part of the society, provoking anger among native abolitionists.	The majority of citizens are sincerely convinced that the desired freedom is harmful.	Secret cells form in the society to advance the greater cause.
2	Speech is strictly regulated by the government.	The freedom desired was once held, and has only been restricted fairly recently.	Discussion of the conflict is forbidden in "decent" society.
3	The government claims the right to restrict travel and social associations.	The rebels are reluctant to press their case out of fear or a desire for peace.	Supporters of the cause self-segregate by marriage and association.
4	Rigid castes compel natives into certain preordained careers or social roles.	The freedom was once held, and is blamed for some great disaster.	Support for the cause becomes bound up in a specific religion or ethnicity.
5	The dominant culture is convinced that they have a perfect society, and any deviation from its norms is a seed of evil.	The freedom is selectively extended to the powerful and important, blunting their concerns.	The government or dominant culture carefully watches outsiders lest they encourage the discontented.
6	Only the government or the elite are permitted to own private property.	Agitators paid by the ruling class paint the freedom as an invitation to chaos.	More than a few rulers and officials secretly sympathize with the malcontents.
7	Freedom of conscience does not exist; all are expected to subscribe to the religious beliefs of the dominant group.	Certain poor or unimportant areas of the planet have the freedom, attracting the most vigorous proponents.	Supporters of the cause cultivate wildly implausible expectations of what the freedom will bring them.
8	A minority seeks political independence from the greater society.	The government or ruling class is constantly promising that the freedom will soon be recognized.	The malcontents' leaders have succumbed to cynicism and greed, and use their supporters as pawns for their ends.

Inequality			
One group or caste controls the bulk of wealth or political power in society. Some elites may have earned their wealth or influence fairly, and now deal with the malicious, tyrannical envy of crowds. Others might have obtained their standing in less legitimate fashion and are willing to take whatever steps are necessary to keep it.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	Venal mercantile powers corrupted the government- or vice versa- into ensuring that they held the vast majority of the planet's wealth.	The oppression is tempered by fear of violent riots and uprisings by the oppressed.	The oppressed have cultural patterns that serve to cripple their own prosperity and freedom.
2	Most wealth was concentrated in the hands of a narrow caste who used the law to perpetuate their affluence.	Rebels operate guerilla cells among the oppressed.	Large meetings or groups of people are forbidden to assemble on this world.
3	Certain castes or groups were considered to be distinctly superior.	The oppressors feel a paternalistic need to "protect" the oppressed.	Different groups of oppressed despise each other as lapdogs or troublemakers.
4	Onerous civic duties were imposed upon a particular disfavored group.	An outside power threatens to intervene if the oppression grows too great.	The oppressed share their own language and form of dress.
5	Members of a particular ethnicity, religion, or caste are enslaved.	The oppressed provide a vital service for their oppressors.	The oppressors encourage various harmful habits in the oppressed.
6	A substantial portion of the population is considered unfit for self-government.	The oppressed play various powerful oppressors off against each other.	It is possible for a disgraced member of the elite to be degraded from their state.
7	Only certain groups or castes are permitted to run businesses or possess significant wealth.	The oppressed are convinced by faith or culture that this is their proper lot.	The same groups vary the patterns of oppressor and oppressed at different places or times.
8	Only certain groups or castes are permitted to receive education beyond their work needs.	The elite among the oppressed are allowed entrance into the oppressor class.	The oppressed have constructed a past where they once ruled- truth or fiction as it may be.

Land			
Quarrels over control of land have existed since the dawn of recorded civilization. The land does not even need to be valuable in an economic sense; home is home, and men and women will fight for it even when it is the most miserably godforsaken chancre on the skin of the planet.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	The land has religious importance, and the owners of it control the local majority faith.	The land has a fragile ecology or geology, and might be rendered worthless by serious fighting.	Natives get very ugly towards strangers who fail to admit the obvious legitimacy of their claims.
2	The land constitutes the planet's first settlement, and holding it grants the possessor governmental control.	The land is presently uneasily shared by both sides, though neither are satisfied.	The locals have an acute sensitivity towards trespassing of all kinds, and punish it ruthlessly.
3	Two populations fight over ancestral lands too small to now hold them both.	The current natives of the land detest both sides involved.	Much of the local music revolves around the disputed land and its preciousness.
4	Ancient deeds of possession seem to grant the land to more than one owner.	The land's value is limited without certain presently-lost secrets.	"Refugees" displaced for generations are used as political pawns.
5	The land is said to conceal ancient pretech relics or lost treasure.	One side could afford to lose the land, and is considering cutting their losses.	Guerilla fighting over the land is an honored tradition for youths.
6	The land is rich in some precious resource.	Control of the land seesaws back and forth with no permanent resolution.	Outsiders are vigorously recruited for the struggle for possession.
7	The land is just a proxy; one side simply wishes to destroy the other, and so uses the dispute as an excuse for conflict.	A third party stands ready to steal the land if the quarreling groups exhaust themselves in direct combat.	The locals ignore even objectively superior, more valuable land in favor of fighting over this foot of earth.
8	The land is partly populated by members of a group that now wishes to seize it to "protect their countrymen".	Both sides are confident that their diplomats can force a concession, and are holding back from war at present.	The heirs of the land's former rulers are kept as bargaining chips by powerful factions.

Nationalism			
Whether a defiant pride of community or the maintenance of full-fledged nations, this planet's society is drastically divided by political boundaries. The cultures on either side of the border may be completely different or indistinguishable to outsiders, but they fiercely defend their own.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	The division is the result of an old civil war with an indecisive outcome.	The nations are too evenly matched in military power to guarantee victory.	Flags and national insignias are considered semi-sacred.
2	Different ethnicities have formed the nations, and deal harshly with others.	The nations are too tightly economically interwoven to afford open war.	Particular songs, colors, or objects are considered symbols of allegiance.
3	One of the nations is a breakaway province with a long list of grievances.	A natural peril demands cooperation among the planet's nations.	Outsiders tend to be treated as spies for the enemy nation.
4	One of the nations is a haven to a downtrodden class despised by others.	Natural barriers separate the nations.	War refugees live in brutal poverty.
5	The nations stem from different colonization attempts.	Strong peace parties exist in both nations, though they remain minorities.	Social status is now based on "patriotic sacrifice".
6	A planetary government exists only in name- in truth, the world is balkanized into numerous small states.	The nations recently fought an inconclusive war, and most fear a second round might finish them off.	Membership in the state majority religion is considered necessary for all "real patriots".
7	Each state sees the others as dangerous rivals for resources and control.	The current rulers are trying to cool down tensions between the nations.	Propaganda has convinced the locals of numerous complete falsehoods.
8	The nations appear almost identical in culture and ideals, but the locals insist that the tiny differences are of dramatic moral importance.	A religious reformer is calling on co-religionists on both sides to calm their ardor.	Both sides are struggling fiercely to contain the other, trying to prevent them from forming alliances with outside powers- or offworlders.

Privation			
Worlds plagued by inequality have an inequitable division of vital resources. Worlds touched by privation simply don't have enough of a resource, no matter how it is shared. Food, water, air, vital minerals, or anything else necessary to human survival might be lacking on such a world, and force desperate conflict over how the little is to be shared.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	Food plants are overwhelmed by an alien disease that causes famine.	Strong communal mores compel sharing on pain of death or exile.	The needed resource becomes the foundation of their monetary system.
2	Water on this world requires processing to remove trace poisons, and the processing is difficult.	Marginal societal members are denied resources in order that the others may have enough.	For food or water-limited societies, cannibalism or human dessication is accepted.
3	Only a few, insufficient areas of the planet can be used for agriculture.	Contraception or infanticide is used to keep the population within rigid limits.	Wasting the resource is a capital offense.
4	The atmosphere has trace impurities, and costly filtration or genetic therapy is needed to avoid respiratory disease.	Status and power in society revolves around producing or controlling the needed resource.	Judicial punishments revolve around restricting resource access.
5	Drastic weather patterns restrict the habitable areas of the planet.	Relic pretech is available to provide the resource, though it cannot be repaired.	The natives are bred or gengineered to require less of the resource.
6	Many areas of the planet are naturally radioactive, requiring costly filters.	The privation is cyclical; the phenomenon abates or eases at times.	Places where the resource is produced or purified are sacrosanct.
7	The local biosphere's crops provide minimal nutrition, requiring costly supplemental diets.	Social groups struggle for control of the resources; the losers get a small share to prevent open warfare.	Social ties all revolve around relationships with a particular resource provider.
8	The soil of the world is slightly toxic, requiring elaborate cleansing and filtration systems for homes and crops.	The locals scavenge supplies from ruins or ancient caches to support their population.	Prophets and demagogues rise based on their ability to provide more of a resource.

Resentment			
An old crime, an old treachery, an old defeat that still rankles- the dead past has its hand on this society, and some ancient wrong still poisons modern relations. Even under surface civility, old wounds are nursed until a chance of due revenge might arise.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	An aggrieved group blames another group for a past planetary disaster.	The aggrieved group is dependent upon those they resent for jobs or resources.	Members of the rival groups rigorously avoid any social interaction.
2	An aggrieved group still hates another group for a past war.	The aggrieved group fears the consequences of open conflict, and so maintains public civility.	Members of the aggrieved group work very cheaply if the task involves harming their objects of despise.
3	The poor and moderately well-off of a world are animated by bitter envy.	The aggrieved group tries to show up their rivals through their own prosperity rather than acts against their enemies.	The aggrieved are willing even to harm themselves so long as their rivals are hurt worse.
4	The wealthy elite of the world are convinced the poor are planning to revolt.	The aggrieved group is trying to rally others to the justice of their cause.	The aggrieved will never permit a despised enemy to outdo them.
5	One group hates another because the latter refused to aid the former in a time of crisis.	The aggrieved group is too weak and lacking in influence to seriously concern the objects of their ire.	The aggrieved make memorialization of the wrongs they suffered part of their religion.
6	One group is convinced the prosperity of another group comes from the theft of resources that rightly belong to them.	The aggrieved group has the will, but not the coherent leadership to act on its resentments.	The aggrieved and those they despise have separate professional societies.
7	One group nurses a bitter grievance over an ancient insult from a rival group.	The aggrieved group uses the resentment simply as an excuse for selfish ambition.	The aggrieved have formed an impressive body of memorial art.
8	One group despises another, whom they are convinced should rightfully serve them were it not for an old treachery.	The aggrieved group recently tried to strike at its enemies, but failed badly, and now licks its wounds.	The aggrieved have lost almost all of what once made them a distinct group except for the shared hate.

Resources			
An ancient cause for quarreling within a group, allocation of available resources taxes the stability of any society. The culture lacks the clear-cut inequity of a world plagued with Inequality, and it's not so impoverished as a world touched by Privation. Still, control over local wealth and usable resources has become the main struggle within its government and society.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	One part of the society is convinced of the need for a communist dictatorship of the proletariat.	The society is still living off the capital of their ancestors.	Ostentatious displays of wealth are expected from those who would rise above the common people.
2	One part of the society is ruthlessly laissez-faire, and is against any vestige of public charity or support.	Recent discovery or development of substantial new supplies of resources have temporarily cooled the situation.	Social mores discourage entrepreneurship, as the wealthy are forced to share most of their wealth.
3	The locals anticipate ecological collapse or resource exhaustion in the near future.	The world is rich enough that even the poorest do not die of privation.	Marriages and social bonds are all fundamentally economic in nature.
4	Their ancestors consumed all the most available resources, leaving only the dregs for their children.	Status rests on how much a person can give to their friends and servants.	Society has little use for credits as a form of currency, preferring tokens backed by commodities or real estate.
5	Attaining the next tech level requires a heavy concentration of wealth with one of the competing merchant factions.	A recent extremist economic policy has collapsed, and left the survivors wary of radical solutions.	Criminals or exiles are forbidden from owning property; whatever they have can be taken from them by anyone.
6	Political legitimacy lies with the leader who can obtain the most resources for his clients.	At least one major faction is confident that either God or history will shortly deliver the resources to their control.	People can be bought and sold as indentured servants or slaves.
7	A substantial portion of local resources were lost or ruined by some disaster.	Rigid social mores insist on a level of sharing with other members of society.	Property laws are Byzantine and prone to legal chicanery.
8	The underclass is constantly railing for greater transfer payments from others.	Ritualized theft is permitted for certain people or classes.	The clergy of the world have merged with the bankers and financiers.

Schism			
No faith or ideology is so perfectly uniform as to be immune to schism. Points of difference that seem utterly trivial to outsiders can ignite brutal violence and social ostracism among believers, all fired with the certainty that God or the march of history is on their side.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	The world's dominant religion splinters into two or more mutually-anathematizing faiths.	An outside religious organization is respected by all, and acts as diplomats and negotiators.	The locals all wear clothing or insignia showing their religious affiliations.
2	The majority religion develops a sect of zealous and rigorous radicals.	One sect is so much stronger than the other that open warfare is suicidal.	Communities are based on shared religion.
3	The majority religion advocates a belief that is demonstrably false and harmful, inducing more moderate sects to form.	The most violent sects demand such painful sacrifices from adherents that they remain few in number.	Different sects dominate different professions.
4	The majority religion becomes corrupt and venal, provoking reform groups that may be overzealous.	The sect leaders are actually calm-headed, but the common believers are often extremists.	Different sects have assumed control of important resources.
5	A new prophet rises with a creed in direct opposition to the majority faith.	The competing sects all answer to the same supreme authority.	The sects condemn intermarriage or social contact with their opponents.
6	Alien relics or visitors provoke a synergy between their beliefs and sectarians of the majority faith.	The most violently radical believers are very isolated and avoid contact with others.	Sect affiliation is shown by tattooing, scarification, or other permanent modification.
7	Hostile religious sects become closely identified with specific ethnicities or communities.	The sects limit membership to certain ethnicities, professions, or communities, and so do not grow very large.	Sect membership involves the rigorous taboo of some normal behavior.
8	Relics or evidence are uncovered that the world's majority faith is based on a hoax or scheme.	The sects share control over a holy site or valuable resource, and know that fighting would destroy it.	Religious beliefs are extremely private, and discussing them in public is punished.

War			
War never changes, but it finds endless freshness of expression among the myriad societies of the stars. There is almost nothing too trivial to merit massive bloodshed and loss of life, but most planetary struggles revolve around control of political power, vital resources, or the precious treasures of a better past.			
1d8	DETAILS	CONSTRAINTS	CHANGES
1	Horrific violence engulfed almost every significant community on the planet.	The combatants fought each other out, subsiding out of war-weariness.	The populace is inured to death; human life is cheap to them, even their own.
2	A slow-burn guerilla struggle went on between ruthless rebels and the central government.	The conflict was so destructive that those involved were essentially exterminated as meaningful groups.	The defeated group is demoralized and has no faith in their own culture.
3	A brief, savage war of extermination broke out between two or more groups.	One side decisively conquered the other, crushing it as a military rival.	The horrors of war have made the populace highly averse to military action.
4	A cold war between communities or factions regularly flared up.	One side lost its industrial or technological base, and collapsed.	The populace romanticizes life before the war as better and nobler than it was.
5	Highly ritualized combat went on between two or more groups, the fighting contained away from civilians.	One side was betrayed by its leadership, and forced to surrender.	Military organizations and formations have become important social groups.
6	A faction acquired tech or military strength sufficient to goad a war with their rivals.	One side is convinced it was betrayed by its leadership, when in truth it simply had lost.	Many locals bear marks from old radiation, bioweapons, or the legacy of war's privation.
7	Warfare became institutionalized in society, with factional combat the normal means of resolving conflicts.	An outside party forced a peace between the combatants.	Adults are all expected to have basic military training.
8	A brutal deadlock ground on for decades between evenly-matched groups.	An outside enemy or threat compelled the foes to ally against it.	Weaponry is strictly restricted to members of the military and security forces.

An Example Society

The GM has just finished using the World Generation chapter to cook up the planet known as Rothmann's World. According to the dice, Rothmann's World is a warm planet with a breathable atmosphere, a biosphere incompatible with human nutrition, and hundreds of thousands of inhabitants. It has baseline level 4 tech level, and its world tags are Rigid Culture and Altered Humanity. As it seems likely that the PCs are going to want to explore this planet sooner or later, the GM decides to take a little time to flesh out the Rothmanner society.

First, he rolls 1d20 to find out why Rothmann's World was colonized in the first place. According to the table, it was built as a corporate factory world. The reason for that "Altered Humanity" tag is beginning to look fairly obvious, as it seems likely that the locals were imported as purpose-engineered laborers.

Still, the GM holds off the decision on that for a moment as he considers government types. The obvious choice is an Autocracy, representing the corporation's iron grip on the world's governance. That seems a little too pat for the GM, and so he decides to roll instead, coming up with "Feudalism". He decides that the original corporate directorate rapidly broke down into numerous semi-hereditary subdirectors, each of which controlled one of the important factories. As far as Rothmann's World was from the rest of humanity, the home office found it cheaper to deal with the new "Executives" than insist on their removal.

Having established the reason for colonization and the form of government the colony first had, the GM rolls twice on the societal traits table to find out what kind of people the Rothmanners are. The results suggest that they are "Individualistic" and "Self-loathing". They accept and tolerate divergence within their society, and they ultimately feel that their culture is a bad and inferior one.

Clearly, the altered humans enlisted to work the planet's factories were born and bred to be the inferiors of their supervisors, and have absorbed that self-loathing into their culture. Now that their creators are dead and gone, they struggle to redeem their own inferior nature by finding some path to excellence, whether spiritual or material. At least before the Scream, they viewed their feudal masters not so much as tyrants, but as protective guardians charged with shielding them from their own inferior natures.

But there was a conflict at the heart of this old society. The GM might pick something appropriate, but he's curious as to how this story plays out. He rolls randomly, and gets "Privation" as the conflict. Rolls on the Details, Constraints, and Changes come up as 4, 8, and 2. Since the world has an immiscible biosphere, he drops the Details roll and decides that the privation is a lack of edible food. The Constraint gives a reason why the conflict hasn't

torn the society apart yet; the Rothmanners are able to scavenge scattered storage dumps of rations shipped in by their corporate masters centuries ago. The Changes suggest that life is so hungry for the Rothmanners that they've accepted cannibalism.

Things change, and the Scream was a larger change than most. Their ties with the core worlds were shattered, their creators vanished, and their rulers tottered on their thrones. The GM rolls 1d6 to see what became of the world's feudalism, and gets a 6; the feudal Executives couldn't hold on to their power without relying on their inferiors, until society had become a de facto Republic.

The GM makes a side note that the descendents of these Executives are one of the strongest factions to preach the natural inferiority of Rothmanners in the face of "true humans", and that only their Executive ancestors ever truly purified themselves of the taint of their artificial nature. Some of them are convinced that the world needs their "spiritual leadership" once more.

The GM can add a fresh conflict to the society to represent the chaos after the Scream, and out of cheerful malice, decides to do so. After the rise of the Republic, the dice perversely decree that Freedom became even more straitened. Individual Rothmanners were assigned by family to different factories and agricultural works in an attempt to keep society from collapsing. Even today, heirs of these families have become part of rigid castes that are forced to work in the same line of labor that their ancestors performed. Even discussing the dissolution of these castes is considered a crime against the common good. The society as a whole and its elected representatives are convinced that this rigid adherence to caste labor is necessary to keep the planet alive.

Yet despite this harsh economic rule, the Rothmanners are remarkably individualistic about religion, personal beliefs, and social structures. These experimentations are all viewed as necessary steps in the individual's quest to rise above his or her "inferior nature", pursuits that they can conduct without threatening the survival of their neighbors.

With this society drawn out, the GM has an excellent idea how the locals are going to react to any offworlders. Outsiders are idolized and revered by the Rothmanners, "true humans" worthy of emulation and respect. Of course, the leadership dares not oppose the popular feeling of the electorate, but many of them are likely to be distinctly displeased at the idea of offworlders coming in and disrupting the peaceful docility of their voters. An offworlder who somehow manages to solve or mitigate the world's food supply problem can expect to be hailed as little short of a god- and simultaneously convince the Rothmanners even more deeply of their own inferiority in the face of "true" humanity's mighty gifts.

CHAPTER FOURTEEN

DESIGNER NOTES

This chapter covers the behind-the-scenes reasoning that led to some of the design decisions made for *Stars Without Number*. The intent is not to demonstrate that the choices were the One Best Way to handle things, but instead to help GMs make their own modifications and house rules without stumbling into known pitfalls. *Stars Without Number* comes from a gaming tradition that strongly encourages GMs and players to make a game their own, with such rules and structure as they like best. That's a good deal easier when everyone involved knows why a particular rule was made in the first place.

This chapter is broken up into sections that deal with each of the other chapters individually. Optional rules will be suggested in the appropriate section, and pitfalls and dangers will be addressed under the chapter where they are most likely to appear.

Character Creation

Stars Without Number is a class-based game with moderate niche protection. It's not intended that a character of one class should be able to accomplish everything done by other classes, even if they try to focus in those directions. This niche protection is strongest for Psychics; nobody else is ever going to be able to use psionic powers, while all classes can perform skill-based activities and fight enemies to some extent, depending on how they direct their characters.

In practice, Experts and Warriors have fairly strong niche protection as well. The average game will rarely ever see characters above 10th level, at which point Experts are carrying a +4 attack bonus while Warriors are wielding a +7 bonus and have higher weapon skills, too. An Expert who pours his skill points into Combat can approximate a Warrior's skill levels, but he's going to be badly deficient in non-combat skills in that case, and have fewer hit points than the warrior no matter what he does. Perhaps most importantly, he'll lack the Veteran's Luck ability, which guarantees that a warrior is always going to be able to take one more hit than anyone else before going down.

Conversely, nobody else is going to be as widely and deeply skilled as an Expert. Psychics and Warriors don't have the skill points to replicate such a broad range of high skill levels, and the Like A Charm class ability of Experts gets more powerful the higher the original skill. A skill with 90% success chance and a second roll has a 1% chance of failure. A skill with 50% success chance and

a second roll has a 25% chance of failure. For rolls where failure means Very Bad Things, like spike drive navigation, Experts are all but indispensable.

Still, you may want to blur these lines. This is most likely if you want to replicate a world where psychic powers are spread more broadly, and many heroes can have a pinch of them while still focusing chiefly on other pursuits. This sort of effect is easy enough to replicate with the game system. Just make everyone use the Psychic XP tables for advancement, but when they go up a level, allow them to take the level as a Warrior, Expert, or Psychic. Give them whatever skill points, psi power points, or psychic disciplines they might earn from the level, but keep the skill points granted by each class separate. They can spend skill points earned in any class on learning a given skill, but if it's not a class skill for all of them it costs non-class advancement rates. Such characters use the best saving throws and attack bonuses among their various classes, and gain all the class abilities for each class they have.

For example, Marissa Jamison is a level 3 Expert who has just spent a great deal of time winning favor with the psychic academy on Shiraz. When she next goes up a level, she decides to take it in Psychic. She gains a primary and secondary discipline, psi power points as a first level psychic, and can now use whichever saving throws and attack bonuses are best between a level 3 Expert and a level 1 Psychic. She rolls 3d6 and 1d4 together to determine her new hit points for the level, and gains 2 skill points. She can spend them on any skill, but if she spends them on a skill not given to the Psychic class it costs non-class skill rates. For XP and maximum skill level purposes, Marissa is treated as a 4th level character, and can next add another level when she earns enough XP for 5th.

Ability score generation is intended to be fundamentalist old-school in some regards; 3d6 in order with minimal point swapping. I unbend enough to give a free 14 in a prime requisite to ensure that every player can play the class they want to play. This style might not suit groups that want to be able to create specific concepts rather than rolling first and working from the attributes outward. You might prefer to use 4d6, drop the lowest die, and put in whichever order you wish. Or if you want to keep all the PCs on the same power level, let everyone use the highest set of statistics that any among them roll, ordered as they desire. If you let PCs arrange their own attributes, you should probably take away the

free score of 14 the default rules grant, as it's usually no longer necessary to ensure that they get to play the class they want to play.

Ability scores aren't terribly important in *Stars Without Number*. They'll nudge skill checks by a point or two and affect attack rolls by about the same amount. If players feel uncomfortable about playing PCs who might have some very low scores, you might want to phrase attributes as being variations from the average rather than absolute metrics- so someone with an Intelligence of 3 isn't a drooling moron, he's just very much on the low side of intellect for an adventurer, while someone with a Dexterity of 3 isn't hopelessly inept, but just slower or clumsier than most.

Hit point generation is designed to trend closer to the maximum as the character advances in levels. While a first level character can end up with one measly hit point to call their own, the repeated rerolling and taking the best score as they level makes it much more likely that a high-level PC is going to be fairly close to the maximum hit points possible for their class. This is intentional. Classic old-school fantasy gaming usually has resurrection magic available for powerful and wealthy PCs, allowing a player to salvage a high-level PC who catches a bad break. By default, this isn't an option in *Stars Without Number*, so high-level PCs need to be a little more resilient than usual.

The background and training packages are built to give a little extra reward to those PCs who choose them as opposed to the generic adventurer backgrounds, largely because the skills a given background grants might not all be equally valuable to an adventurer; the Steward skill comes in handy for running a complex enterprise, but most PCs are going to be more interested in having a good Combat/Projectiles rating. If you're not worried about PCs cherry picking their skills, you can increase the Adventurer background's skill selection by one and the Adventuring Psychic/Warrior/Expert training package choices by two additional class skills.

Psionics

Most psionic powers aren't going to risk blowing up your game. They tend to be short-range, immediate abilities that do something useful but not impossible to accomplish by other means. Even the precognitive powers tend to simply give the psychic some hints and clues rather than outright answers to a mystery.

The biggest exception is in telepathy. A skilled telepath can blow open a lot of different mystery situations by reading people's minds. As a GM, if a player really wants to play a telepath, you should try to roll with this rather than simply arranging adventures so that telepathic powers are useless to solving the problems involved. You should work on the assumption that the telepath is going to be probing people's heads and that secrets that rely on hidden information won't remain secrets for long.

But just because the party knows a truth doesn't mean that they can conveniently use it. Information gathered by illicit telepathy is almost always inadmissible as evidence, even assuming that anyone would believe them in the first place. There is also the matter of the extremely harsh punishment usually levied on telepaths who



use their powers on unwilling subjects. Most normals get very, very upset at the prospect of having their innermost thoughts rifled by a stranger. Just finding out the truth tends to be the beginning of a solution; after that, they need to figure out some way of proving it without getting the party's telepath lobotomized for illicit brain-scanning.

Biopsionics is a very important discipline, substituting for the party cleric in a traditional fantasy game. And just like many clerics, they don't get the ability to heal hit point damage until second level. Most biopsionic Psychics are going to make a beeline to mastering their healing power at third level, but this is less of a concern than it might initially appear. At a glance it might seem that such a Psychic can dish out unlimited healing forever, but it has to be remembered that System Strain is gained with each die of healing, and most PCs can handle only 9 to 12 points of System Strain before they need entire days to lower the score.

This changes the healing dynamic for *Stars Without Number*. A party will be able to handle multiple back-to-back combats without running out of healing resources, but once they hit their System Strain maximums, that's it. They know that no further healing can help them, and they've got to get out of danger and rest up for a week or more before they'll be able to zero out the strain. This model of healing encourages short, high-intensity conflicts followed by a week or two of rest and recovery.

If you don't care for this model, you can short-circuit it by simply saying that powers that heal hit points can't be mastered and don't add to System Strain. Biopsionic healing powers will always cost psi power points, so the biopsionic will never be able to heal an arbitrarily large number of hit points on their fellows. This will help replicate the dynamics of a more traditional adventuring group,

where the players know that the “cleric” has a limited amount of healing available that can be applied freely to any injured PC. As a consequence, however, the party will always be at full strength if they have so much as one or two days to rest and recover, whereas a party dealing with System Strain might need weeks between adventures to bleed off accumulated healing stress.

When adding additional psionic powers, you can either build entirely new disciplines or simply add variant abilities to existing disciplines. These variants should cost the same to acquire as any other psionic power, though they probably require a mentor already trained in the ability. If you do introduce something like that, you should consider allowing psychics to swap out existing powers of the same level to learn the new ones. A power that is permanently and forever an “NPC ability” is really just a plot device in a hat, and there’s no point in worrying about game balance or what PCs would do with such a power.

Psychics tend to have less versatility than the traditional fantasy magic-user, and this is intentional. Psychic abilities that create a broad range of different effects should be avoided, or else the Psychic risks turning into a replacement for the Expert and the Warrior. In particular, offensive psionic combat powers should be relatively limited in scope or damage so as not to steal the Warrior’s limelight. If a Psychic can constantly outdo a well-equipped Warrior of the same level, then the power is too strong, and should be changed to work only once on a given target or else inflict some negative consequence on the Psychic to discourage spamming it.

Veterans of game design arguments will be aware of the “linear fighter, geometric wizard” issue that “magic” such as psionics can present. In a nutshell, the issue is that low-level magical powers tend to be weak and inferior to the mundane abilities of teammates, while high-level powers are vastly superior to anything they can bring. In consequence, a low-level magic-user is a burden on the party and a high-level one turns them into mere loot caddies to clean up after the magic-user’s victories. The group pushes forward until the magic-user’s powers are exhausted, and then they hole up and rest until the wizard can refresh his abilities.

This doesn’t need to be the case with Psychics if you’re careful about what you permit in the way of new abilities. Most high-level Psychic abilities are quite strong, but limited in effect. They do one thing, and do it well. A GM can also fairly easily keep track of a Psychic’s abilities, and doesn’t need to worry about them pulling some obscure spell out of their hat which just happens to perfectly suit the situation. Perhaps most significantly, the only way a Psychic can gain multiple high-level powers is by strictly focusing in only two disciplines, which further limits their flexibility. Unlike a magic-user who gains potential access to all high-level magic as soon as he reaches the requisite level, a Psychic will never have more than two ninth-level psionic powers unless he reaches a truly ridiculous level of experience. If he hasn’t rigidly focused on only two disciplines, he may never get that second ninth-level power.

Equipment

The equipment chapter can be read as one large shopping list for adventurers, but there’s no guarantee that a given piece of equipment is going to be available on a given planet. Import restrictions, local mores, or simple lack of supply might make one or more items unavailable on a world. If you have a particular dislike of some piece of equipment, you might simply write it out of your world entirely.

Most players will gravitate promptly to the armor and weaponry sections. Unlike many traditional fantasy games, there’s nothing stopping any character from using any armor or any weapon. The game operates on the assumption that PCs are going to grab the best armor and weaponry they can find, starting with an armor class around 6 to 4 and going lower as rapidly as possible. A GM probably shouldn’t fight this, though you should feel free to limit the wearing of heavy armor to wilderness and covert adventures. Striding down main street in a suit of powered armor is something that most PCs should have enough sense to avoid, given the wealth of awkward questions the local police are apt to levy. You should also feel free to make military-grade armor and weaponry more difficult to acquire than a simple jaunt down to the corner store.

Low armor classes are less of an issue in *Stars Without Number* than in many traditional fantasy games because weapons are more deadly and death more final. Even a thug with a revolver can expect to do 1d8 damage on a hit, while a swarm of goons with combat shotguns can ruin just about anyone’s day. By toning down the number of successful hits they make, it lowers the chance of a PC getting turned into blood pudding the first time they come under fire.

By the same token, you shouldn’t feel obligated to make the Psychic stay in the back and avoid combat. It’s true that they have the smallest hit die of the three classes, but Constitution is a prime requisite for the class, and some Psychics can sport impressive hit point totals thanks to that. They can wear the same armor as any other class and gaining basic proficiency with weaponry doesn’t cost them any more skill points than it costs Experts. With psitech weaponry they can even excel if they focus themselves accordingly, though they’ll never be able to take the punishment a Warrior can handle.

It’s intended that projectile and energy weapons both be reasonable choices for combatants, no matter their level. Energy weapons are slightly more likely to hit, while projectile weapons do slightly more damage. Experts and Psychics might favor energy weapons to help boost their otherwise anemic attack bonus, while Warriors might be willing to trade a little extra hit bonus for the sake of heavier damage.

In traditional fantasy games, the prospect of “magic items” drives a lot of exploration and plundering ambitions. The analogs for these in *Stars Without Number* are alien or pretech equipment, especially limited-run prototypes or superbly-crafted artifact items. A lot of this gear operates in ways completely unreproducible by postech devices or serves as an upgrade to standard tech. Alien or pretech devices can serve as “magic” in a game, performing feats that defy scientific understanding.

They shouldn't be added cheaply, however. The equipment list includes some tech level 5 devices that can be found on the open market with enough searching, but the really useful and powerful artifacts probably shouldn't be for sale anywhere. They should be things earned through adventuring or favors to powerful organizations rather than simply a healthy credit balance. If you alter this to allow sales, you give up one of the major tools you can use to motivate adventurers, and you substantially increase the damage that an excess of cash can do to your game.

Starships are extraordinarily expensive and valuable. In large part, this is to keep the number of ships down to a reasonable count. The fewer starships, the more significant interstellar travel becomes, and the more novel and interesting offworlders are. It does present some issues when the players somehow manage to get their mitts on a starship they're willing to sell. Most of the time, their means of acquisition will be highly dodgy, legally speaking, and buyers will no more purchase a starship under such circumstances than they'd buy a yacht from a street corner peddler in a trench coat.

Still, sometimes the players will get massive amounts of credits by one route or another. So long as the cash doesn't count as a reward for XP purposes and as long as there's no market selling extravagantly powerful artifacts, there's really not a lot of damage that this can do to a game. Players will likely sink the money into real property, possibly giving them a start on founding their own faction, or else burn it on whatever goals are motivating them. Let them have these successes. So long as their expenditures don't unreasonably increase their prowess as adventurers, there's no harm in it, and you can always use their purchases as hooks to further adventures.

Systems

The Systems chapter is where a lot of GMs will start making their tweaks, and that's entirely reasonable. It's useful to understand a few things about how the choices were made before you start ripping things out wholesale, however.

Combat works on the assumption that combatants know each other's armor class, which is something the GM has to tell the players explicitly when they fight an NPC or alien creature. If they know that, it's a simple matter of rolling 1d20, adding their attack bonus and the target's armor class, and counting a hit if the result is 20 or greater. I chose this system because it's quick, simple, and is effectively equivalent to a number of traditional to-hit systems.

Some GMs like to conceal armor classes. For these GMs, attack bonuses should be subtracted from 20 to create a target number for hitting AC 0. The player then rolls 1d20 and subtracts it from this target number to find what AC he hit. This is mathematically identical to the former method, but spares the GM from having to reveal a target's AC at the cost of obliging the player to do more cumbersome math.

The use of ascending armor classes instead of descending ones is also popular in some quarters, so what would be AC 9 in *Stars Without Number* would be AC 11 in an ascending system. If you prefer to use this system, just subtract the printed armor class from

20 to find its ascending equivalent. A hit roll is 1d20 plus the attacker's bonus. If it equals or exceeds the target's ascending armor class, it's a hit.

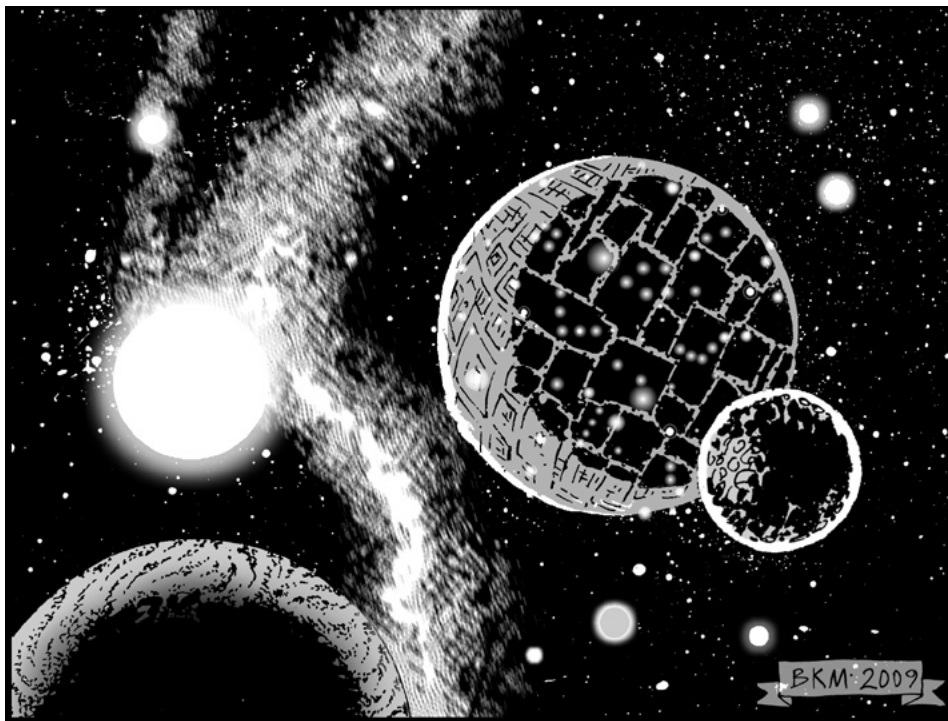
Combat kills off a target at 0 hit points. A limited kind of "resurrection magic" exists in the form of biopsionics and lazarus patches, which can revive a target that has "died" within the past few rounds. But if the group lacks a Psychic with the right tricks and is all out of lazarus patches, or if they have bad luck on the activation, or simply can't get to the victim in time, it's curtains for that PC. Not all GMs like to have unconsciousness and death be quite so proximate, or have almost every 1st level character be within one pistol bullet of the Great Beyond.

If you're in this camp, you can cause unconsciousness at 0 hit points and death at -10 hit points. An unconscious character is bleeding out, and takes one further hit point of damage at the end of each round, dying at -10. Anyone who gets to the character can stabilize them, whereupon they revive in a critically wounded condition as described in the Injury section.

Saving throws are provided for different types of threats to help distinguish between the classes. A Psychic, unsurprisingly, is better at fending off mental intrusions than is a Warrior, but a Warrior generally tends to grow quickest in hardihood and survivability. If you find these multiple saving throws to be more complication than they're worth, you might just give PCs the same default saving throws as monsters and NPCs- 15, -1 for every two full levels.

Spaceship combat is designed to make for relatively brief fights between ships. It's an unfortunate truth that space combat tends to be fairly exciting for the pilot, tedious for the gunners, and boring as can be for the passengers. Starship weapons in *Stars Without Number* are very short-range so as to eliminate the need for any kind of battle map to track ship locations and firing arcs. The defining quality of deep space is that it's a void, and space combat systems that require maps for resolution tend to rely on some of the most boring maps ever created. I thought it better to eliminate that aspect entirely and simply assume that ships get in close and maneuver as needed.

Phase shifts were added to give the pilots and gunners a few more choices each turn, so they have something more to do than simply picking a target and rolling a hit roll. You can drop phase shifting if it's more of a complication than it's worth to you, but that will limit the utility of certain spaceship weapons, and it'll also substantially lessen the defensive advantage of ships with high-rated spike drives. As it stands, some pretech courier ship with a spike drive-6 can shift up to phase 6 and hang there, high above the maximum phase of a posttech battleship with a spike drive-3. Unless the battleship is equipped with weapons designed to hit out-of-phase targets, every volley shot will have to roll 4+ on 1d6 just to have a chance of hitting the courier. A driveless system gunboat might have no effective way at all to harm the courier.



World Generation

The world generation system prioritizes establishing a few critical facts about a planet: whether humans can survive on it, what else lives on it, how many humans live on it, and whether or not the humans living on it have the same technology as the player group. There are a great many other facts about the planet that might be objectively interesting, but those four elements are what I consider to be the most important to establish for actual game purposes. You could add additional data fields for hydrography, local laws, economic elements, or whatever else particularly intrigues you.

The tags are designed to encapsulate numerous traditional science fiction tropes. You can always add your own, leaning on the examples of the tags to break up a given trope into characteristic elements for friends, enemies, places,

things, and complications. There's nothing particularly sacred about that division, but framing your tags that way helps simplify the creation of adventures.

History

It's fairly easy to strip out the existing *Stars Without Number* universe and replace it with something new. By selective dropping of inappropriate elements, you can use the rules to simulate a wide range of settings.

To dispose of psionics, simply drop the Psychic class and turn psitech into devices of mundane technology. If you want to preserve the general outlines of history provided by the chapter, you can blame the failure of the Jump Gates on an unanticipated surge of metadimensional energies, part of an unpredictable cycle of destruction that operated on too long and uncertain a basis for humans to anticipate it. Some modern researchers have designed shunts and failsafes for handling these metadimensional surges, but the humans before the "Burnout" were entirely unprepared.

You might want to axe faster-than-light travel, setting your game inside Sol's system or in some far system reached by ancient slowboat colonization ships. In this case, spike drives no longer provide faster-than-light travel, but merely measure the speed of a ship's in-system flight. Multiply the in-system travel times by a factor of three or more, depending on how long you want to make a flight between planets.

The trope of "humanity passes through a Golden Age of prosperity and expansion before collapsing into a mere candle in the stellar dark" is convenient for a lot of reasons. It gives players the prospect of ancient troves of wealth to plunder, it justifies a universe in need of exploration, and it lets players get in on the "ground floor" of an upward historical arc, influencing the fate of incipient empires with their choices. Still, you might prefer to set things in a more stable, integrated universe where humanity never suffered the collapse. Such a setting would involve worlds with much more closely integrated societies and politics. Entire sectors might be under the control of a single centralized power.

Factions

A retro-inspired game just doesn't feel quite complete without providing some kind of guidelines for high-level characters establishing their own domains. The faction chapter is intended to provide an abstracted system for doing just that, and for integrating multiple domains and groups into the broader events of the sector. By necessity, a faction is somewhat abstracted. There are no specifics provided for membership, absolute credit income, exact tallies of equipment and military forces, or other details that would be necessary for running a more simulationist sort of domain. I avoided including these things because they would imply a degree of simulationist accuracy and detail that the system was never intended to support. A GM is supposed to be able to run the activities of a half-dozen of these factions between each session with no more than ten or fifteen minutes given to the work. A more detail-oriented system might give participants more knobs and dials to play with, but I chose to limit the GM's workload.

By necessity, conflict between factions is also abstracted out, such that a Demagogue can clash with Postech Infantry using the same general system used to resolve conflicts between industrial Saboteurs attacking a shipping concern. GMs can swap out this part of the system for some other means of conflict resolution without changing the basic framework, if they wish, but often as not players aren't going to be all that interested in how two NPC organizations resolve their differences. If they really care about some conflict their own faction gets involved in, it's an excellent excuse to make an adventure out of it and not rely on the conflict resolution system. The system is simply there to make attacks and defenses quickly manageable by the GM.

You should feel free to add in your own assets, using existing ones as a guideline. Particularly valuable and useful assets might be held out as rewards for a particular adventure or used as a way of soaking up excess PC wealth.

Aliens

For this chapter, the focus was on providing a straightforward system for creating the kind of aliens that can actually be useful to a GM building adventures. There are innumerable alien races in science fiction, but the ones useful to a GM tend to be strong in different ways than those built to appeal to speculative xenobiology or xenosociology. Biological or social plausibility is great, but aliens for a game need to be something the GM can *play*.

Some aliens are just there to be Bug-Eyed Monsters for the PCs to fight, and the Others fill that slot in this design. Like aliens are meant to be the sort of creatures the PCs can negotiate with and rationally predict, and that means that they've got to be fundamentally comprehensible in their motivations. The easiest way to do that is to start with an essentially human mindset and then exaggerate certain traits. The Lens system does precisely that.

Fictional alien races that catch the imagination might be subtle and sophisticated and carefully designed, but they almost always have a direct, easily-comprehensible handle. You've got the Proud Warrior Race alien, the Logical alien, the Greedy alien, the Xenophobic alien, and so forth. The species might be a great deal *more* than this, but each species has some trait that an outsider can fix on and use to get a generally correct idea of how that alien is going to act. This is important for a GM who is expected to run alien NPCs.

However you handle alien creation, you should give your players something to grab on to with them. The most elaborate, carefully-designed alien society with thirty different words for tertiary-egg-fertilizer-favored-by-the-moon-ancestors will fall flat if there's no manageable way for the players to approach it.

Adventures

There are innumerable resources available online and in print for GMs who want help with creating adventures. This chapter can't pretend to recapitulate them, but it can help a GM create adventure outlines in a hurry. Due to the nature of a sandbox game, there are a lot of situations where a GM simply doesn't have the certainty necessary to justify sinking a large amount of time and effort into preparing an adventure. There's no guarantee that the players are ever going to see it. A GM might not have more than the time between one session and the next to brew something up, because he'll only know the players' plans that far in advance.

By using the tags established in world generation, the adventure generator automatically taps into a world's local flavor and characteristics to flesh out the adventure. Naturally, you're under no obligation to actually use it that way. If you've drawn up a world fully, you already have a half-dozen different plot elements to play with. That's enough for a lot of GMs.

The real grunt work in adventure design is establishing the specifics once you have the outline in hand. Naming specific NPCs, defining particular locations, statting enemies and threats, and the

ubiquitous need for maps all involve substantial work. You should feel free to take full advantage of online resources for these things, and you can supplement the Resources chapter with your own favorite name generators and map sources.

Xenobestiary

Traditional fantasy games tend to rely fairly heavily on encountering strange beings and stabbing them repeatedly. A science-fiction setting might not naturally lend itself to that sort of thing quite so readily, but players are still going to expect to run into exotic alien beasts. Unlike in fantasy games set mainly on a single world, however, the players are likely going to be travelling to numerous worlds with wildly differing environments. The GM can't easily recycle creatures, unless he can explain how Broxian Lungworms ended up spread from one corner of the sector to the other.

For this, you should consider mining the vast numbers of free old-school monsters available online and in other products. A quick reskinning can turn a fantastic beast into something appropriate for a given alien world, and a lot of magical powers can be handwaved and recolored into the results of Weird Alien Biologies or novel environmental effects.

The stat lines provided in the Xenobestiary chapter are there chiefly to give you a general idea of what a given type of creature might have in terms of hit points, average damage, and armor class. You'll notice that some creatures are fairly fragile, but have substantial attack bonuses and damage rolls. These creatures are intended to be "glass cannons" that mob a group, providing threat without producing a long-running battle. You should be careful about using them with low-level PCs, as all it takes is one bad round to shred a PC.

If you need to extemporize a creature, an easy guideline is to simply pick a number of hit dice, multiply it by 4 to get its hit points, give it an attack bonus equal to its hit dice, and an armor class of 7, 5, or 3 depending on how well-armored or agile it is. Give it one attack for every three hit dice or fraction thereof, and give the attacks 1d8 damage.

Be careful about attack bonuses. An agile warrior in powered armor is likely to have an armor class of 0 or lower, and a creature needs to have a +1 to hit before they start hitting on anything more than natural 20s. You shouldn't feel obligated to automatically start sending alien can-openers after such a character, but you also shouldn't waste time dicing out lengthy battles of attrition when an enemy has no real chance of bringing down such a hulk. If such a character faces unworthy opponents, you might just roll 1d8 and assume that many points of damage managed to scratch the tank before he or she crushed the opposition.

Societies

The society generation system is meant to give you the substance of a world's culture rather than focus on details like language, architecture, costumes, and other specifics. Those details make good window dressing and add flavor to a world, but they don't necessarily do much to help you run a sandbox game with them. You need to give the players something to sink their teeth into, and

most of the time, that means a conflict. The locals have something to fight about, or something to desperately resist, and the PCs are there to respond to that situation. They can ignore it if they choose, but the simple existence of the conflict gives the GM a ready-made focal point for generating all manner of complications, friends, and enemies related to the struggle.

Don't worry about making your cultures too simplistic and one-note. Much as with aliens, your players will inevitably seek to simplify things down anyway, and a bold, sharp delineation of traits and character will give them something on which to hang their understanding. Later, if the players show deeper interest in the society, you can think about adding in shading and complexity to the initial impression. If the PCs are just there for a few sessions before setting course for new adventures, it's just not worth the effort to do more than present the basic outlines of a society.

Robots and Mechs

Both AIs and mechs have substantial genre baggage attached to them, and you should likely take a moment to think it over before deciding whether or not to include them in your campaign. It's entirely legitimate and reasonable to decide that they just don't fit the tone you're looking for, and advise your players that AI PCs and mechs won't be making an appearance in the sector you're creating. That said, some players have a real love for these elements, and you shouldn't forbid them unless they're a genuine problem for the campaign tone.

AIs are intended to be slightly inferior to human PCs in terms of specialization, but superior in versatility. No warbot is ever going to have the same attack bonus as a human warrior, but an AI that focuses on combat skills is can still be stripped out of his Bane hull and slotted into an Eidolon armature for an undercover mission. The mix and match of armatures to fit the situation is the intended balance for the slightly sub-par skills, saves, and attack bonuses of an AI.

Of course, some AIs are going to spend all 20 of their Tolerance points and be consigned to using a Standard armature. This is intentional and acceptable, because an AI that's burnt all 20 Tolerance points in character creation is going to either be very good at one purpose or extremely well-rounded in general. Three skill packages, 3 skill points per level, and good mental statistics come at a price.

The phylacteries of AIs serve two main purposes. First, they counterbalance somewhat for the inability of mechs to heal without parts and repair downtime. A wounded human doesn't need anything but time to get better, and can get boosted back

Point-Buy Characters

You might want to repurpose the AI-building rules as a point-buy system for creating human PCs. Build them the same way, except give them 29 points and require them to buy all six attributes. These PCs treat all skills as class skills. Everyone gets a background skill package for free, while buying a Psychic training package costs 2 points, a Warrior one costs 3 points, and an Expert training package costs 4 points. As an additional attack bonus option, a PC can buy a +2 bonus every 3 levels for 7 points. A PC can pay an extra 5 points to have psychic abilities, or else they can choose one of either Veteran's Luck or Like a Charm for free.

to full hit points quickly by a biopsionic. A damaged armature requires access to a good supply of spare parts and time for repairs, and those aren't always available. The AI is much more likely to be down some hit points for longer periods of time, and so more liable to hit zero hit points in a sudden spike of damage. Allowing the AI to survive many of those situations spares the extra time needed to build an AI PC.

The second purpose is to add to their utility as villains and recurring characters. It's not enough to blast a malevolent AI to bits; the PCs have to destroy its phylactery as well, and if they can't do it within a month the AI will have time to regrow a new one. Players can be given the satisfaction of blowing an enemy to smoking scrap without costing you the use of the AI as a recurring villain.

Mechs are intended largely for military-oriented games, as not a lot of other PCs will have the cash or opportunity to lay hands on even a suit-grade mech. PCs in *Stars Without Number* are fragile by nature, and even a warrior in powered armor can't afford to shrug off heavy mag rifle fire for too long. Mechs and suits allow PCs to get in the very hottest firefights without risking sudden death. It's advisable to be careful about allowing mixed groups with some in mechs and some out of them, as it can often result in situations where the unarmored PCs end up pulped by situations that the mech pilots breeze through unscratched.

You should also take care to make mech users respect the maintenance and upkeep requirements of their fancy hardware. Mechs are most useful when the group knows that it's going to be facing extremely heavy opposition, and they have the time and opportunity to go in armed for bear.

CHAPTER FIFTEEN

HYDRA SECTOR

Hydra Sector is an example of the sort of sandbox sector that can be created with the generation process laid out in chapter six. You might choose to use it intact for your own *Stars Without Number* campaign, or take bits and pieces for import into your own game. Many of the worlds can be lifted out and exported whole into different settings for your own use and convenience.

The first few pages of the chapter give the GM's sector map, descriptions of the important planets, and details of some significant factions in the sector. After that, a separate set of files is provided for the players, maps and details drawn from the assumption that the group will be starting their adventuring career on Gateway and won't know much more about the wider cosmos than is common knowledge on that world. Naturally, if some PCs hail from farther worlds or you choose to start the campaign on a different planet, you'll need to adjust the maps and handouts accordingly.

The GM map shows both widely-known and largely secret drill routes between stars. These are simply the most common routes taken by starship captains and not the only paths between worlds. Private traders and explorers have almost certainly mapped drive routes throughout the sector at one time or another, but it can be an adventure in itself to find a captain willing to part with timely information on recent metadimensional currents. Even those captains brave enough to jump to an isolated world like Liberty probably don't do so often enough to maintain useful drill maps, and some merchants dealing with isolated worlds prefer to keep their course readings private from potential competitors.

Almost all the worlds have experienced offworlder visitors at some time since the Scream, but some have had them more recently or widely than others. Some planets simply lack the communications infrastructure to pass word of a ship landing on one side of the world to the inhabitants of the opposite continent, while other groups found it wisest to conceal their dealings with offworlders from other natives. Any system on a known trade route is going to have at least one deep-space refueling and repair depot for the use of merchant vessels. Ships that venture to less well-known worlds might have to rely on fuel scoops to replenish their drives and hope that nothing crucial breaks during a drill

Some stars do not appear at all on the player's map of the sector. While astronautic specialists on Gateway may be aware that these stars exist, no commonly-known drill routes are available to reach them, and it can be difficult to distinguish between them and other stars in the same general stellar cluster that have no possible access by spike drive. Explorers may be obliged to recover or extract astronomical data simply to confirm the existence of a star before they can begin to try reaching it again.

The Gateway Navigation Bureau handout covers common public knowledge of other worlds on Gateway. Regional specialists will likely be able to tell explorers more if they think to consult with them before heading out for parts unknown.

Nahuatl Pronunciation

Seven of the worlds in the Hydra Sector once belonged to the Far Aztlan Polity, a culture-group that strongly identified with their particular reconstruction of ancient Aztec Mesoamerica. One element of their culture was a reliance on the Nahuatl language, and even today many citizens of the Flower Union and the Burning Mirror Compact know no other language.

The following table gives a few hints on pronunciation. Of course, convenience might suggest that the Nahuatl pronunciation of the year 3200 CE varies from the table below in whatever direction is simplest for you and your group to pronounce.

Pronunciations

CU	"qu" in queen	Coatlan	Co-ab-lan
HU	"w" in win	Octlan	Oak-lan
TL	"l" in clue	Tecalco	Tea-kal-coh
TS	"ts" in cats	Tlapan	Lah-pan
X	"sh" in shell	Tlayacac	Lah-yah-cahk
Z	"s" in sum	Xaltepec	Shal-teh-pehk
		Xochitla	Show-chi-lah

GM SECTOR MAP

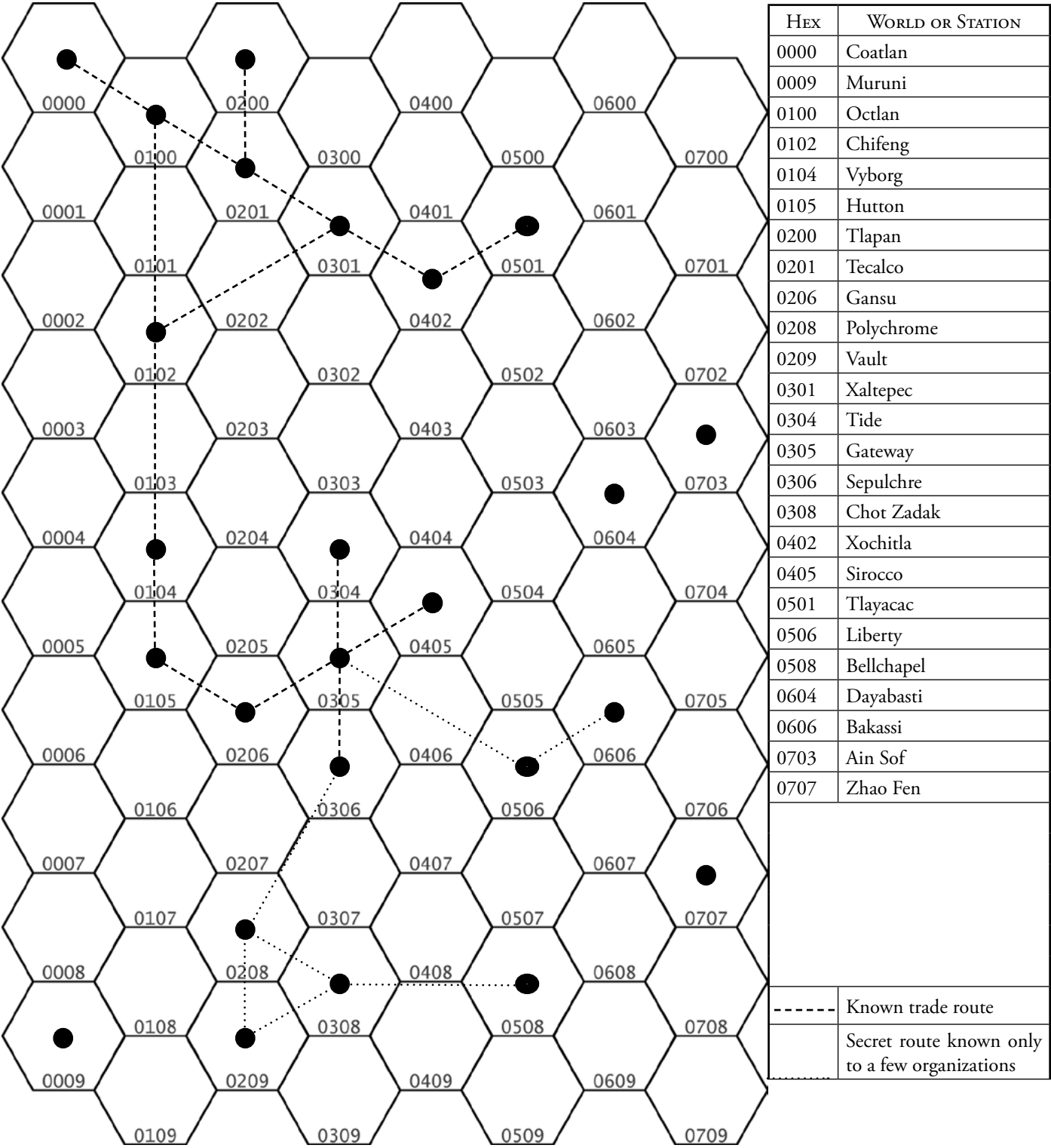
SECTOR NAME *Hydra Sector*

MAJOR SECTOR POWERS

The Flower Union (Coatlan, Octlan, and Tlapan), the Burning Mirror Compact (Xaltepec, Xochitla, Tlayacac), the Republic of Gateway

MAJOR ALIEN SPECIES

Hoosh (Coatlan), Zadak (Chot Zadak), Agathi (Zhao Fen)



Ain Sof

Atmosphere	Breathable	Temp	Temperate	Bio	Miscible	Pop	None	Tech	-
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Tags Alien Ruins, Sealed Menace

Enemies Handful of surviving alien jailers, Automatic weapon systems on the citadels, The Kept Things Within

Friends Alien jailer in need of help to maintain a citadel, Brash colony-site scout Tiana Okole, Crashed scout-ship pilot Thomas Oh

Compl. One of the citadels is beginning to crack, A citadel sends out defensive attack robots, Pirates want the world for a base

Things Key to unlocking a citadel's defenses, Ancient pre-Scream colony supplies, Alien defensive weaponry

Places Fortress of carved silver alloy and white stone, Serene forest untouched by man, Fetid prison-sanctum deep in the earth

The empty world of Ain Sof is surprisingly clement in climate and environment, but its distance from the sector's major trade routes and the numerous ancient alien fortresses discouraged colonization. These massive edifices of stone and glyph-marked alloy defend themselves with advanced energy weapons against attack or encroaching vehicles. The few explorers who investigated the world before the Scream were unable to tell whether life still dwelled within the citadels or whether the edifices were simply responding as their long-dead masters had intended. No one yet realizes that the massive citadels have at their core things as were never meant to be let free.

BAKASSI

Atmosphere	Breathable	Temp	Warm/Temperate	Bio	Miscible	Pop	22,000	Tech	4
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Tags Outpost World, Hostile Biosphere

Enemies Nightmarish native predator, Colonel Basingstoke the crazed hunter, Commissar Fei Lu the offworld slaver

Friends Director Nkanta Aliko the local ViridiCorp executive, Michiko Saku the escaped slave, Explorer Priscilla Otukpo

Compl. Loss of xenoallergen medicine shipment, Jungle perimeter breach. Outbreak of Bakassi madness

Things Crate of precious animal extracts, Exquisite hunting weaponry, Gear from an lost safari

Places Steaming green-litten hell, Slave-worked harvesting camp, Roistering starport compound

Perched at the end of the Sepulchre-Liberty-Bakassi drill route, this world is dominated by thick jungles and rolling grasslands around shallow sweetwater seas. The local ecosystem is savagely vibrant, with even the plants prone to be flesh-eating predators. Practically every animal on the world is dangerous in one way or another, and advanced postech survival gear is often necessary simply for survival. Bat-winged, acid-spitting semi-insectile predators swarm grav vehicles that venture too far from the starport's defensive gunnery, while the jungles and plains are dominated by creatures that look like crosses between dinosaurs and giant spiders. The plant life of Bakassi is exceedingly valuable to the pharmaceutical industry, however, and ViridiCorp, a company out of Gateway, has established an outpost on the planet to serve collectors. ViridiCorp stretched its finances enormously to plant the outpost, and was forced to take in capital from an unsavory state-owned Gansu combine. The Gansu partners import slave labor to harvest the delicate plants, insisting on its legality under Gansu law, despite the local director's abhorrence of the practice. Some of the slaves, deprived of xenoallergens, fall prey to the "Bakassi madness" caused by the local pollen.

BELLCHAPEL

Atmosphere	Breathable	Temp	Cold/Temperate	Bio	Miscible	Pop	355,000	Tech	3
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Tags Altered Humanity, Local Tech

Enemies Zadak salvage party leader, Amok native, Paragon Caractacus of the Brilliance faction

Friends Improver Svartov the biotechnician, Exemplar Julia of the Pankratia faction, Defense Commander Barlowe

Compl. Important NPC suddenly goes Amok, Zadak salvage party attacks city, Modification creche defenses suddenly activate

Things Zadak biotechnology, Bellchapel research data, Keys to a still-sealed Zadak modification creche

Places City blended of human and Zadak structures, Ice-laden forest, Training dojo for Pankraties

With the Scream's destruction of their entire caste of psychic mediators, the alien Zadak blamed humanity for the catastrophe. Their reprisals permanently tainted the atmosphere of Polychrome and took tens of thousands of humans prisoner as laborers for Chok Zadak. Bellchapel also came under Zadak rule for over a century until a series of uprisings successfully destroyed the alien hold on the planet and seized the modification creches where they altered humans to better serve their purposes. The humans promptly built cities atop the Zadak creches in order to defend them from alien raiding parties bent on recovering their lost tech, and used the arts to continue and enhance the Zadak modification programs. The Pankraties prefer to augment human physical abilities at the cost of a greatly lessened lifespan, while the Brilliance improve perceptive and cognitive abilities, knowing that it greatly increases their odds of a destructive insanity known locally as "Amok". Other alterations are more aesthetic in nature, and a vast range of human and near-human forms can be found among Bellchapel's inhabitants.

CHIFENG

<i>Atmosphere</i>	Breathable	<i>Temp</i>	Cold	<i>Bio</i>	Miscible	<i>Pop</i>	12,500	<i>Tech</i>	4
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Tags Seagoing Cities, Local Tech- mineral extraction tech

Enemies Yellowbeak alpha much like a cross between a whale and a kraken, Lu Hao the ice monastery fanatic who despises offworlders, Shen Guo the local murderer who is desperate to get offworld before he is caught

Friends Ying Li the yellowbeak huntress, Carson Cui the harried spaceport chief engineer, Abbot Hong of the ice monastery who fears Lu Hao's rashness

Compl. Freak yellowbeak school attack, Glacier settlement engine breakdown, Pirates attack isolated glacier steading

Things Dried yellowbeak membranes for mineral extraction tech, Engine spare parts, Abandoned spaceship cargo

Places Remote glacier settlement, Storm-tossed sea amid a school of ravenous yellowbeaks, Serene ice monastery

A cold and desolate water-world, Chifeng's major settlement of Tian Wu is the remnant of a Second Wave research colony. The settlement is perched atop a glacier that has been equipped with powerful aquajet engines, which it uses to avoid massive migrating packs of yellowbeaks that would otherwise threaten to overrun the glacier. A few smaller settlements are perched on other glaciers, but the harsh environment and lethal aquatic life claims many Chifengan lives each year. The floating settlements manage to supply themselves with vital minerals through the use of remarkably advanced filtering and extraction technology used on the seawater. This tech is reliant on extracts from certain very dangerous local predators, making it difficult to export. Most offworld credit is earned by refueling and repairing trade ships bound for the Flower Union or Burning Mirror Compact. Compact raiders don't touch Chifeng, lest they lose the ability to send ships deeper into the sector beyond.

CHOT ZADAK

<i>Atmosphere</i>	Breathable	<i>Temp</i>	Warm	<i>Bio</i>	Engineered	<i>Pop</i>	121,000	<i>Tech</i>	2
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Tags Altered Humanity, Tyranny

Enemies Emilio Barr the slave overseer, Chuk-Whirr the Zadak harmony lord, Bestial Changed that stalk the jungles

Friends Baron Raymond of the border marshes, Lady Mara the rebel leader, Otho the malcontent Changed

Compl. Outbreak of mutagenic disease, Fast-growing terraforming plant, Inspection by the Changed

Things Zadak medical supplies for human biology, Augmenting drugs and protocols, Gengineered plant schemata

Places Living Zadak harmony spire, Zadak beetleship, Human worldtender village

The insectile Zadak were relatively peaceful trade partners with humanity until the Scream wiped out their caste of psionically-active mediators. The remaining Zadak blamed the humans, and after savaging the surface of Polychrome they retreated to their homeworld with tens of thousands of human prisoners. Once there, the humans were put to work helping to maintain the elaborate engineered paradise-jungles of Chot Zadak under the guidance of the ruling Harmony Lords. The humans are kept at medieval levels of technology while their Zadak masters employ sophisticated xenotech to alter certain among them to serve more specific purposes. These modifications usually result in drastically shortened life spans, but a Changed can be faster, stronger, and more perceptive than any ordinary human. The Changed generally serve as overseers and inquisitors of their own kind, watching for signs of rebellion. Zadak orbital sensors are weak, but any foreign human visitors are advised to keep a very low profile.

COATLAN

<i>Atmosphere</i>	Breathable	<i>Temp</i>	Cold	<i>Bio</i>	Immiscible	<i>Pop</i>	425,000	<i>Tech</i>	4
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Tags Perimeter Agency. Primitive Aliens - the Hoosh, thickly-pelted, clawed humanoids who resent humanity.

Enemies Oot-Too the Hooshan shaman-warlord, Ms. Xoco Gavilan the True Wayist spy, Crazy Diego the heat-claim jumper

Friends Perimeter Director Huemac Sevilla, Jacinta Huertas the heat prospector, Soohit the Hooshan conciliarist chieftain

Compl. Hooshan insurgents attack the heat mines, Razor-ice storm sweeps the surface, Breakdown in the heat transfer lines

Things Ice sculpture holy to the Hooshans, Perimeter maltech data file, Restricted Perimeter spy technology

Places Undiscovered heat mine, Hooshan holy glacier, Subterranean Perimeter base

Orbiting a cold star, the ice world of Coatlan is rendered livable by the numerous heat mines that tap magma upwellings from the world's core. These heat mines provide the power and warmth for the world's subterranean greenhouses. The native Hoosh dislike and mistrust humans, and largely avoid them when possible, though a few tribes have a reluctant relationship with the interlopers. Coatlan serves as the intelligence hub for the Flower Union, and most Union spies are trained in the subterranean facilities that once housed a Perimeter Agency- and still do, unknown to the public.

DAYABASTI

Atmosphere	Breathable	Temp	Cold	Bio	Remnants	Pop	Special	Tech	4
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- Tags** Zombies, Local Tech- Suspended animation technology
- Enemies** Ravenous Waker pack, Monitor Larissa who is bitter at the centuries of abandonment, Scavenger merchant Ivan Wu
- Friends** Head Monitor Basil who is desperate for help, Newly-defrosted Monitor Jun-Hee, Bold Explorer Krishna Moher
- Compl.** Sudden release of Wakers on the cryovault level above, A freshly-defrosted Monitor turns out to be afflicted with Waker impulses, Waker attack threatens the hydroponic gardens of the Monitors
- Things** Protocol for curing Waker syndrome, Replacement core tap power linkages, Pretech life support technology
- Places** Blackened farmland covered with mold and vermin, Darkened cryovault corridors, Barricaded Monitor hydro station

The world of Dayabasti was once a vital world teeming with life. Advanced experiments in cryogenic suspension were conducted at the planetary university, and the Dayabastan metawheat fields were some of the richest in the sector. This ended with the Scream, for the Dayabastan wheat was engineered to require regular refreshment from Terran seed stock. Millions of Dayabastans faced starvation within a few years. In a herculean feat of engineering, desperate scientists sank multiple core taps to power a sequence of massive cryogenic vaults for the populace. A few tens of thousands of keepers were left awake to monitor the equipment. In the centuries since, new generations of Monitors have discovered that the core taps have polluted the ecosphere so badly as to completely collapse it. Worse still, the fluctuating power is causing some sleepers to wake prematurely, suffering severe neural damage and an insatiable hunger for protein. These “Wakers” seem to find each other unappetizing and can survive on almost no sustenance for years before finally dying; in the meanwhile, they hunt the increasing beleaguered Monitors in growing packs- some with disturbing levels of intelligence.

GANSU

Atmosphere	Breathable	Temp	Warm	Bio	Miscible	Pop	815,000	Tech	4
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- Tags** Restrictive Laws, Theocracy - devout followers of “Reformed Neo-Communism”
- Enemies** Serene Radiance Jianyu Tang the suspicious commissar, Liling Han the underworld queen, Secret policeman Fu Yang
- Friends** Lan Du the fixer, Bohai Long the smuggler, William Wen the aspiring revolutionary
- Compl.** Certain PC possessions are suddenly outlawed, Travel permits are revoked, PCs are “invited” to spy on someone
- Things** Crate of forbidden pharmaceuticals, Dataslabs loaded with counter-revolutionary propaganda, List of informers
- Places** Darkened alleyway meeting, Mass public ceremony, Bustling factory floor

Gansu is a hot, dusty savannah-world under the thumb of a small cabal of hereditary oligarchs who use the principles of “Reformed Neo-Communism” to justify their control of the populace. Virtually everything not mandatory is forbidden on Gansu, and lives are bleak, gray, and isolated from the larger galaxy. Only politically reliable natives are permitted to leave Gansu, and foreigners are usually tailed by “minders” at all times. Still, the Gansu underworld is vibrant in its creativity, and a remarkable range of goods and services are available to those with credits and the right connections.

GATEWAY

Atmosphere	Breathable	Temp	Warm/Temperate	Bio	Miscible	Pop	3,215,000	Tech	4
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- Tags** Forbidden Tech- the maltech remnants remaining in the bunker sites, Pilgrimage Site - the orbital jump gate
- Enemies** Javed Cole the maltech smuggler, Commissioner Brant of the Salvage Board, Calum Feng the psionic schismatic
- Friends** Tobias Vishwanath the mountain guide, Suzanne al-Bayt the salvage buyer, Camaxtli Lopez the psionic mentor
- Compl.** Maltech disaster strikes a remote site, Salvage Board revokes permits, Villagers discover an unmarked cache site
- Things** Keys to a sealed cache, Salvage permit, Exotic psitech artifact
- Places** Perfect Mirror Academy, Ancient pretech cache, Ruins of the jump gate

One thousand years ago, Gateway was the only world in the sector that rated a jump gate. Most of the later colonization of the sector came through Gateway, and countless estates and pleasure-palaces were erected on the tropical shores and high mountains of the world. When the Scream came, Gateway suffered a brutal population crash as bulk food transports could no longer reach the planet. In the chaos, countless wealthy and powerful citizens fortified their homes with supplies and automated defenses in hope of riding out the catastrophe. Many never emerged. Today, the Salvage Board issues permits to explore these sites to suitably brave souls. Oversight is necessary because some of these sites engaged in extremely dangerous maltech experimentation in a desperate attempt to restore the jump gate and the maddened psychics that once powered it. Modern psychic training on Gateway is done at the Perfect Mirror Academy, founded by a refugee from the Temple of the Clear Sky on Tecalco. The methods of the Academy are strictly orthodox-too orthodox for some. A sect of renegade psychics seeks to use some of the ancient experimentation to fuel greater power than the Academy offers, no matter the cost to them or those around them.

HUTTON

Atmosphere	Breathable	Temp	Warm	Bio	Miscible	Pop	410,000	Tech	3
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Tags Feral World, Quarantined World

Enemies Potentially anyone, Dr. Geoffrey Spite the maltech lab owner, “Chopper” MacGinley the organlegger

Friends Claudia Wu the urchin, Aziz Thompson the idealistic reformer, Marissa Patel the profoundly unfortunate “tourist”

Compl. Organ harvest roundup, Gang warfare destroys vital food or water supplies, Hideous mutants erupt from the jungle

Things Cryoboxes full of prime human organs, Maltech biological information, A list of offworld buyers

Places Stock pens full of human organ donors, Genteel salon for discreet buyers, Blood-crusted maltech laboratory

No one's quite sure when Hutton went wrong. It's been this way for centuries, however, a hot jungle world dotted with ramshackle cities and fetid favelas and the isolated citadels of the Everlasting. These soulless maltech bioscientists have mastered the art of replacing failing organs with those of a donor, though the oldest are obliged to swap in one new part or another on a weekly basis. They keep the other inhabitants of Hutton as cattle for their experiments, and entertain buyers from distant worlds who need the kind of help only the Everlasting can provide... and who don't especially care who has to die to get it. Several offworld governments maintain patrol ships to keep an eye on traffic in the Hutton system, and anyone who strays from the observation and refueling post maintained in-system can expect a lot of hard questions on any planet that knows about their dealings.

LIBERTY

Atmosphere	Thin	Temp	Temperate	Bio	Miscible	Pop	13,000	Tech	1
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Tags Abandoned Colony, Out of Contact

Enemies Elijah Ten Masks the cannibal prince, Yarrowstalk Sue the jealous tribal prophet, Jonas Guo the offworld mask harvester

Friends Dana who needs another mask before she can have a child, Wilhelm the scavenger guide, Gopal the prudent chief

Compl. The natives turn out to have very weak immune systems, A disaster destroys a tribe's extra masks, Precious pretech colonization tools are vital to a tribe's survival

Things Untouched cache of no-maintenance, no-power-needed pretech breath masks, Warehouse full of instafab barrack panels, Long-lost colonial food supplies

Places Grassy plain dotted with ceraplast ruins, Tribal camp of hides and scavenged parts, Sealed and pressurized creche

Most of the prisoners on Sepulchre who lived to complete their sentence remained permanently exiled from Terra. Given the reluctance of other worlds to accept them, the Terran government arranged for them to be settled on the unappealing world of Liberty. The oxygen-poor atmosphere required air supplies for the inhabitants, but the Terran Mandate was generous enough to provide advanced pretech masks and recycling systems for the ex-convicts. With the Scream and the sudden absence of vital supplies from Terra, the colony's population crashed and never did recover. The handful of survivors subsist in primitive tribes, each one dependent upon possession of the remarkably sturdy breath masks. Amid the ruins of the lost colony, substantial supplies of colonization materials can still be found, lost or abandoned in the chaos that followed the Scream.

MURUNI

Atmosphere	Breathable	Temp	Cold	Bio	Miscible	Pop	12,000	Tech	2
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Tags Psionics Worship, Local Tech - alien psitech

Enemies Icefinder Abbas One-Eye who grows mad, Raider chieftain Suleiman the Lean, Ras Ibrahim the wicked poet

Friends Apprentice icefinder Aisha al-Basit who is curious, Sheik Muntasir who desperately needs help, Old Ishaq the wanderer

Compl. Ice theft leaves the tribe waterless, Scaled desert beasts attack in the night, An icefinder prophesies of evil strangers

Things Alien psitech, Rich ice mine, Relics from the crash-landed ancestral ship

Places The bone-white alien towers of the Pillars of the Gods, Cold sand wastes, Ice mine

Sometime shortly before the Scream, a scout cruiser crashed on the cold desert world of Muruni. Unable to summon help in the wake of the disaster, their unusually psychically-active descendants still eke out a hard living in several tribes dwelling in the dry, cold wastes of the world. They would have perished long ago had they not discovered a number of precious alien psitech artifacts in the tower-ruins that dot the world. These artifacts allow a psychic to create heat, a vital need in melting the ice that forms most of Muruni's water. These psychics are revered as holy men and women, and use their powers when necessary to find new ice veins. Lacking training, this use invariably kills the icefinder sooner or later, or else drives them mad. Until then their word is law in their tribe.

OCTLAN

Atmosphere	Breathable	Temp	Cold	Bio	Miscible	Pop	815,000	Tech	4
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Tags Trade Hub, Heavy Industry

Enemies Chen Fei the ruthless merchant, Pedro Alvarez the corrupt union boss, Felicia Santos the amoral factory owner

Friends Panitzin Zola the Old Wayist preacher to the traders, Xilali the factory urchin, Dr. Mendez the clinic physician

Compl. Strike-turned-riot at a factory, Merchant dispute turns violent, Picket line obstructs an important route of travel

Things New production prototype, Deed to a factory, Smuggled True Wayist relics

Places Raucous spaceport bazaar, Frozen factory-building reeking of chemicals, Elegant tower-mansions of the elite

Octlan is the heart of the Flower Union's industrial production, its hundreds of factories producing the arms, ship parts, and other necessities for the Flower Union's struggle with the Burning Mirror Compact. The strains of the war have resulted in a deep division between the wealthy factory owners and union officials who control the planet and the poor workers who must labor there. Octlan is also the commercial hub of the Flower Union, with traders coming through via Chifeng to trade for the goods of the Union worlds of Coatlan, Octlan, and Tlapan.

POLYCHROME

Atmosphere	Invasive Toxic	Temp	Temperate	Bio	Remnants	Pop	951,000	Tech	4
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Tags Exchange Consulate, Local Specialty- cyberware

Enemies Zadak raider remnants, Director Marcus Crow the pitiless oligarch, Nemo the scheming revolutionary leader

Friends Consul Annabelle Weatherly of the Exchange, Zipper the street doc, Professor Sterling the cybertech researcher

Compl. Revolutionaries inspire a riot, Warren seals fail and admit atmosphere, Gruesome plague breaks out in the underclass

Things Prototype cyberware, Zadak xenotech, Secrets of a corp executive

Places Inside a warren-city, The color-streaked surface of the planet, Abandoned building in a ruined city

Polychrome was originally named for the gases that lit in streamers of brilliant color across each evening sky. Nowadays nothing lives on the surface of the planet except salvagers in sealed exploration vehicles and the remnants of alien Zadak raiding parties. The insectile Zadak attacked Polychrome shortly after the Scream, detonating a number of atmospheric biotech devices that poisoned the planet irrevocably. The spread of the toxin was slow enough to give some survivors time to seal some underground shelters that grew into the warren-cities that dominate Polychrome today. A degenerate Exchange Consulate splintered into multiple corporations that have effective rule over the planet now, contested only by a "revolutionary" movement that's led chiefly by amoral opportunists. Polychrome cyberware is the finest in the sector, however, and the need to compensate for long-term exposure to trace toxins has made its development and implantation a prime industry.

SEPULCHRE

Atmosphere	Thick	Temp	Warm	Bio	Immiscible	Pop	212,000	Tech	2
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Tags Civil War, Tomb World

Enemies "Liberator" Justin Cardonas, Amal the Butcher and his troops, Mayor Wei who hates all offworlders equally

Friends Maya Lin the spire-city headwoman, Breathkeeper Thomas the mask-maker, Sister Eudora the medical missionary

Compl. A spire-city's atmosphere seal is breached, A raider band breaks in, Gas storm plunges the surface into complete darkness

Things Advanced hydroponic tech, Hidden pretech cache, Lost stockpile of provisions

Places Spire-city peak, Tunnels spattered with blood, Ancient prisons filled with bones

Whatever name Sepulchre originally had, it's now known as one of the worst hellholes in the sector. The towering peaks of its gas-shrouded mountains were rich with valuable rare earths, and Terra used the jump gate of nearby Gateway to ship in tens of thousands of political prisoners and other malcontents to do the extraction. These laborers lived their lives within vast spire-cities atop the mountain peaks. When the Scream hit, the jailers fled in the few available spike drive ships and left the prisoners to their doom. In centuries since, one crazed bandit chief after another has landed on Sepulchre to pick the bones of the dead and fight the survivors of the last expedition. As space travel became more common, Sepulchre became a favorite destination for would-be "emperors" and "dictators" who considered the surviving remnants to be easy pickings for their dreams of unfettered rule. These warlords rule their own little domains of misery and fight each other constantly, collapsing eventually to add their numbers to the native-born remnants. The limited resources on Sepulchre make life very difficult for the people, but new bands always come to search for further relics of a lost age. In orbit, a fueling station operated by a Gateway consortium provides fuel and exceedingly expensive provisioning for explorers.

SIROCCO

Atmosphere	Inert	Temp	Cold	Bio	Miscible	Pop	550,000	Tech	2
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Tags Badlands World, Out of Contact

Enemies Arch-Seer Vodis the Breath Lord, Wheeler Karl the badlands raider chief, Free Merchant Ekdis who hates competition

Friends Arch-Mender Galen the curious Breath Lord, Local merchant Caleb who smells profit, Adept Will the Preceptor missionary

Compl. A Breath Lord goes mad from overexerting his abilities, Oxygen mine collapse threatens air supply, Old feudal bonds are claimed on the local Breath Lord from a malevolent rival

Things Pretech air supply system, Permission for psionic training, Cache of unregistered oxygen

Places Sealed Breath Lord palace, Field of metawheat worked by masked peasants, Psionic training cloister for young psychics discovered amongst the commoners

Sirocco was never anything but a third-tier colony world with an unbreathable atmosphere and a windy, frigid climate. As such, there have been few spike drive captains who cared to risk their ships opening up the lost drill lane from Gateway, and the path has remained unused since the Scream. A few profit-hungry free merchants have recently made the trip, however, and are reporting that Sirocco appears to have had a devastating civil war sometime between now and its last contact six hundred years ago. The planet has been balkanized into fractious nation-states ruled by “Breath Lords” who somehow control the oxygen mines necessary for life on the planet. Furthermore, these merchants insist that the Breath Lords all have substantial psychic ability, and may possess training secrets that have yet to be discovered outside Sirocco’s cold wilds. Several consortia are even now preparing expeditions to investigate the truth of these reports.

TECALCO

Atmosphere	Breathable	Temp	Temperate	Bio	Nothing native	Pop	66,000	Tech	3
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Tags Civil War, Psionics Academy

Enemies Colonel Vasquez the ruthless regimental commander, Big Enrique the bandit chief, Inspector Ixchell Suarez the spy-hunter

Friends Village mayor Ibrahim Cardenas, Archaeologist-priest Ecatzin Chilapan, Psionic mentor-priestess Chantico Salazar

Compl. Plague outbreak in war zone, Famine after pillaging, Temple of the Clear Sky closes applications for a time

Things Military intelligence documents, Precious religious artifact, Long-lost psitech relic

Places Temple of the Clear Sky, Burnt-out village, Ruined city from before the schism

Once the capital of the Far Aztlan stellar union, Tecalco became a battlefield when the True Way split to form the Burning Mirror Compact. For the past four hundred years the forces of the Flower Union and the Compact have been fighting over their former capital world, with the population reduced to a bare remnant subsisting on the engineered rice crops and food animals that remain. Most natives hate both sides equally. The sole neutral territory on the planet is the Temple of the Clear Sky, the only psionic academy functioning in Far Aztlan space. They maintain strict neutrality and accept pupils from both the Union and the Compact. Both sides constantly strive to place their own agents among the staff.

TIDE

Atmosphere	Breathable	Temp	Temperate	Bio	Miscible	Pop	1,488,000	Tech	3
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Tags Oceanic World, Police State

Enemies Black Bess the pirate queen, Watcher Claudette the police chief, Richard Vitter the Imperial troubleshooter

Friends Captain Sara Welling of the archaeology-ship Bantam, Disenchanted Watcher Bertram Gilles, Bumboat-man Wilkes

Compl. Typhoon blowing in, The alien ruin the PCs are in springs a leak, The ship’s captain is arrested by a zealous Watcher

Things Sailing itinerary for the Imperial Fleet, Alien sky pearls, Keys to the alien air defense grid

Places Half-submerged alien ruin, Storm-swept ship deck, Public execution ceremony

The original colonists of the island-dotted water world of Tide were unceremoniously dumped into its fertile seas when the planet’s ancient alien ruins suddenly opened up with a barrage of pretech-grade anti-air lasers. Only a narrow band of equatorial water is far enough from all the ruins to allow for safe landing and use of air vehicles. In the centuries since, the hardy folk of Tide have managed to build a pre-spaceflight civilization on the few habitable islands, relying on their fleets of fishing ships to feed their crowded populace. The planet is under the ruthless rule of the Empress of Storms, and her countless Watchers and their informers teem on the islands. Rebel activity on the seas is occasionally indistinguishable from the pirates that also seek refuge in the alien ruins, which only seem to strike at air vehicles.

TLAPAN

Atmosphere	Breathable	Temp	Warm	Bio	Hybrid	Pop	772,000	Tech	4
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Tags Major Spaceyard, Forbidden Tech- the unbraked AI Daedalus

Enemies Daedalus the unbraked shipyard AI, Jose Izatlan the True Wayist saboteur, Maria Montoya the government agent charged with making sure no one learns about Daedalus' unbraked condition.

Friends Felipe Smith the Perimeter agent, Stanislaus Volkmann the shipyard's chief engineer, Isabella Xicotlan the ecological biotechnician

Compl. Sudden military ban on exit from the system, The PCs' ship is impounded for inspection, Shipyard is stalled due to lack of vital components

Things AI-fashioned ship fitting, Illicit tech schematic, Scrapped and forgotten starship weaponry

Places Daedalus' control core, Shipyard space with myriad half-finished hulls, Roaring foundry satellite

The massive black fern jungles of Tlapan have hybridized with many life forms drawn from the Amazon region of Old Earth, providing food supplies ample for the population at the cost of constant vigilance and biotechnic adjustment. Above, however, is Tlapan's chief claim to fame- the Mixcoac Shipyards. A vast conger of foundry satellites and orbital assembly arrays build the ships that the Flower Union needs to fight back against the Burning Mirror Compact. Unbeknownst to the populace, however, the desperate Union government has removed the brakes from Daedalus, the station AI. The new schematics the AI is producing are more sophisticated and efficient than anything it's built before, but the handful of government officials aware of the act live in fear that Union Intelligence will discover this use of maltech. Director Sevilla on Coatlan is already getting suspicious of this strangely efficient AI "upgrade". The officials yet remain convinced that only Daedalus' improved tech can save the Union.

TLAYACAC

Atmosphere	Breathable	Temp	Temperate	Bio	Miscible	Pop	2,355,000	Tech	4
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Tags Colonized Population, Rigid Culture

Enemies Sacrificial Priest Zolton Xalan, Overseer Barnabas Alting, Faith Monitor Inez Poctlan

Friends Rebel leader Anna Chow, Village headman Ignacio Solis, Marius Alting the Old Way mole

Compl. Peasant uprising that is brutally suppressed, Local priests demand tribute, Native friends are imprisoned for sacrifice

Things List of rebel names, Security key code to a high priest's mansion, Cache of weapons

Places Hidden rebel base, Blood-drenched pyramid of the True Way, Elaborate public ceremony

At the time of the schism between True Way and Old Way believers 500 years ago, Tlayacac was a peaceful agricultural world with minimal planetary defenses. It was easy prey for True Way conquerors out of Xochitla and was rapidly brought under the thrall of True Way priests and the Burning Mirror Compact. The natives have maintained a stubborn devotion to the Old Way, however, despite its outlawing by the ruling class. Since then, the ruling class has become a tiny fraction of the population, maintaining its control through naked terror and a small army of collaborators. Social mores are rigid and enforced with savage violence; the planet is ruled by the priesthood and is the effective capital of the Compact.

VAULT

Atmosphere	Breathable	Temp	Cold	Bio	Miscible	Pop	215,000	Tech	4+
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Tags Preceptor Archive, Pretech Cultists

Enemies Adept Cecilia the guardian of secrets, Malloy "Nine Fingers" Fenton the tech-thief, Abelard the salesman con man

Friends First Speaker Darius the Archive leader, Adept Tertullian the pilot-explorer, Initiate Amana the chief engineer

Compl. PCs are accused of stealing tech secrets, PC's ship is suspected of having pretech on it, Ship needs Vaultan parts

Things Vaultan ship schematics, Forgotten map to a mysterious star, Cache of pretech manufacturing components

Places Vaultan ship-cathedral, Busy shipyard, Cold pine forest

Vault is a cold, forested world dominated by its Preceptor Archive, with the First Speaker serving as the de facto ruler of the planet. The Preceptors have a burning faith in their mission to bring the benefits of ancient art and science to the scattered worlds, but greatly fear being attacked and overrun by a less nobly-minded polity. They willingly dispense conventional TL 4 knowledge, but jealously guard their secrets of advanced ship-building technology. Their small population allows only a handful of ships to be built at a time, but the products of their shipyards are widely considered the finest postech starships in the sector. These ships are never sold, and being found in illicit ownership of one can be very hazardous in the Vault system.

VYBORG

Atmosphere	Breathable	Temp	Temperate	Bio	Miscible	Pop	6,550,000	Tech	4
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Tags Xenophobia, Misandry

Enemies Proctor Ekaterina Ortova, Sergei the press gang recruiter, Irina Stanislava the starport control officer

Friends Nastasia Irinova the emancipationist, Boris Stavski the renegade almas, Curious Marina Abeleva who wants to travel

Compl. Proctor demands the male PCs be 'pacified', Locals assume the male PCs are incompetent, Wild man sabotage attempt

Things Antidote to the pacification drugs, Travel pass, Vyborgan biotech

Places Factory full of drugged male laborers, Demonstration against dangerous outsiders, War zone between two city states

Vyborg is a suspicious, balkanized world of city states and regular warfare over mineral deposits and military resources. They are convinced that the rest of the sector poses a grave danger to the peace and harmony of their gynocratic society and they struggle to build more and better defenses against an invasion that is unlikely to ever come. Men are kept pacified with a cocktail of will-sapping drugs and used as factory and farm labor except when military service is required. Some of these men desert, becoming "almasty", wild men infamous for their depredations. The more enlightened Vyborgan women view their men as primitive innocents prone to violent passions and in need of the calmer, more peaceful female mind for guidance.

XALTEPEC

Atmosphere	Breathable	Temp	Temperate	Bio	Remnants	Pop	450,000	Tech	4+
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Tags Radioactive World, Trade Hub

Enemies Priestess Centeotl Cualac the starport inspector, Shumm the radlands war chief, Mutated horror from the wastes

Friends Mayor Joachim Hull from a borderlands village, Archaeologist Edmund Wilson, Merchant Jia Lao

Compl. Fallout storm rolls in from the wastes, Compact press gang comes through, Foreigners accused of being Old Way spies

Things Restricted life support tech, Ancient deed from the ruins, Lost treasure in a ruined city

Places Oasis of clean land in the wastes, Glowing hellscape ruins, Market full of hawk-eyed, sinister inspectors

Once, Xaltepec was populated by Old Wayist adherents of the Flower Union. That ended in a nuclear holocaust 450 years ago, after the planet's antiquated nuke snuffers were disabled by spies. The resultant fallout turned the world into a wasteland of bones and dead vegetation, but True Wayist colonists were ready to seize the world as a beachhead against the enemy. Their advanced filtering and hydroponic tech is equal to pretech in sophistication, and supports significant population in the less dangerous areas of the planet, where foreign merchants who intend to trade with the Compact are often found landing. The rest of the planet is ripe for plunder and salvage by those willing to risk the still-lethal radiation zones.

XOCHITLA

Atmosphere	Breathable	Temp	Burning	Bio	None	Pop	698,000	Tech	4
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Tags Bubble Cities, Warlords

Enemies Iron Lord Axoloha Sandoval of Texopan, Tribute-Collector Josefina Ruiz, Police Inspector Matthias Toztlan

Friends Guo Han the rebel leader, Bad Luck Michelle the crime boss, Atzi Xilotepec the mining team foreman

Compl. Cold war turns hot between Iron Lords, Molten metal geyser, Earthquake threatens a dome's integrity

Things Ingots of precious rare earths, Bubble city security plans, Deed to a rich mine

Places Island in a river of molten metal, Warrenlike domed city, Twisting volcanic tunnels lit by veins of magma

The endless mines of blazing Xochitla provide the Burning Mirror Compact with a vast supply of rare earths and valuable minerals. Extraction teams are based out of the domed cities that dot the surface, each city under the rule of an "Iron Lord". Theoretically, they work together to provide the world's expected tribute to the Burning Mirror. In practice, the lords hate each other poisonously and their struggles sometimes break into open warfare. They hold the lives of their subjects in casual contempt. Woe to the miner who fails to produce the necessary tribute at tax time, for his heart will surely adorn a True Way altar. Offworlders who fail to demonstrate appropriate respect for local customs can expect the same fate.

ZHAO FEN

<i>Atmosphere</i>	Breathable	<i>Temp</i>	Cold	<i>Bio</i>	Miscible	<i>Pop</i>	621,000	<i>Tech</i>	2
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Tags Primitive Aliens, Eugenics Cult

Enemies Quintessence Ishiro Claring who fears outsiders, Binder Eleanor Chang who is convinced they'll seek to 'steal' her Agathi, Pestilence Autumn Turning who is commanded to destroy the outworlders

Friends Tempest Pale Blue the escaped Agath, Muriel Ocheng the secret Agathi sympathizer, Quintessence Amaro Vincenzo who has no Agathi.

Compl. The Walkers mistrust human outsider, The Agathi take the PCs as a sign for revolt, Outworlders want Agathi too

Things Ancient Agathi psitech artifact, Lost cache of pre-Scream colony tech, Meticulous research data on Agathi psionics

Places Remote Walker sanctuary, Agathi kennel, Battlefield torn by psychic powers

The world of Zhao Fen was originally inhabited by a humanlike alien race known as the Agathi, a technologically primitive species of remarkably powerful psychics. While an individual Agath only ever developed one type of psionic ability, these powers were vastly stronger than those of comparable human psychics. Tempests could hammer entire battlefields with psionic force, Speakers could sift minds for motivations and desires even their owners did not suspect, and other remarkable feats were naturally part of the species' heritage. The original human colonists held a wary peace with the Agathi until the Scream all but eradicated the race. The few demented survivors were barely enough to produce a viable breeding population, and the chaos of their madness shattered Zhao Fen's tenuous technological base and forced the humans into multiple isolated Holdings ruled by leaders known as "Quintessences". The surviving humans ruthlessly slew all the adult Agathi they could bring down and captured the infants to be raised among humans. It wasn't long until the Agathi became used as living weapons in the disputes among Holdings, their bodies often crippled to prevent them from escaping. Only the teleporting Walkers managed to avoid capture. The surviving Agathi are bred amongst each other to more perfectly enhance the strength of each succeeding generation, even at the cost of severe inbreeding and genetic damage. With no contact with the wider sector for centuries, there are no outsiders to protest these barbaric practices, and it is unlikely the Zhao Fenans would care if there were. Still, some among the humans fear that this treatment of the Agathi can only bring them ruin eventually, and prefer to deal more gently with "their" Agathi; even this half-hearted humanity is dangerous given the culture and its constant, pervasive fear of a psychic slave uprising.



The Flower Union

Devout followers of the Old Way, these three planets are locked in a mortal struggle with the schismatics of the Burning Mirror Compact.

ATTRIBUTES	Force 6, Cunning 3, Wealth 5
HIT POINTS	29
ASSETS	Postech Infantry/Force 4 on Tecalco Blockade Fleet/Force 5 on Tecalco Blockade Runners/Wealth 5 on Tlapan Informers/Cunning 1 on Tlapan Bases of Influence on Coatlan, Octlan, and Tlapan, all with 14 hit points.
TAGS	Perimeter Agency, Planetary Government of Coatlan, Octlan, and Tlapan.
FACCREDITS/TURN	5
HOMEWORLD	Tlapan
GOAL	Seize Tecalco.

The Flower Union is one of the two inheritor states of the territory formerly held by the Far Aztlan Polity. The union was originally cemented by a firm belief in the Way of Teotl; the idea that the ancient Aztec religion was correct in its essentials and that its practice was vital for the development of a strong and vibrant Far Aztlan culture. Centuries of theological development and cultural drift had produced rendered the creed unrecognizable to the ancients, perhaps, but it had a living warmth to the people of Far Aztlan. Blood sacrifice had been abandoned from the start, for what God desired most from men was the sacrifice and submission of their metaphorical hearts, their will to do good and act nobly toward the world. The numerous Aztec gods were each viewed as “paths” to the greatness of the divine mystery and their rites and ceremonies were counted as ancient ways to purify the soul and focus the believer’s resolve on their spiritual improvement.

The Scream shattered the Far Aztlan Polity. The confusion and chaos inspired a group of radical Teotl priests to believe that a more ancient power was necessary to maintain their culture, and that those who were willing to claim that power were most deserving to wield it. Their charismatic appeal to strength and purity attracted many new adherents, and a series of savage pogroms triggered a war between them and the Flower Union that persists to this day.

The citizens of the Flower Union are fiercely devoted to the Old Way of Teotl. Priests are honored men and women of personal virtue. District and continental governors are elected in relatively free and fair fashion, and work together to rule the Union from the homeworld of Tlapan. The war with the Burning Mirror Compact has been going on for centuries, but it has only heated up in the past fifty years, with both sides finally managing industrial-scale production of spike drive starships. Unfortunately for them, the citizens of the Flower Union are getting the worst of the fight.

The current goal of the Flower Union is to seize control of the battleground planet of Tecalco. If they can manage to take that world, they’ll be able to narrow their front against the Burning Mirror Compact and deny their enemies easy spike drive access to the worlds of Octlan and Tlapan.

The Burning Mirror Compact

Bloody-handed zealots and steely conquerors, the Burning Mirror Compact split with their old compatriots in the Flower Union to found a new empire based on human sacrifice and the rule of the strong.

ATTRIBUTES	Force 6, Cunning 6, Wealth 4
HIT POINTS	34
ASSETS	Postech Infantry/Force 4 on Tecalco Zealots/Force 3 on Tecalco Strike Fleet/Force 4 on Tecalco Demagogue/Cunning 6 on Tlayacac Heavy Drop Assets/Force 2 on Xaltepec Bases of Influence on Tlayacac, Xaltepec and Xochitla, all with 15 hit points.
TAGS	Imperialist, Planetary Government of Tlayacac, Xaltepec, and Xochitla.
FACCREDITS/TURN	5
HOMEWORLD	Tlayacac
GOAL	Destroy six Force assets of rival factions.

The Burning Mirror Compact was born 500 years ago in the ashes of the Scream. A band of renegade Teotl priests became convinced that only strength could save the Far Aztlan Polity from the chaos that had befallen them. The populace must be taught fear and reverence for their leaders, and the neighboring stars must be brought to heel for the good of all. Where the Old Way forbade human sacrifice as blasphemous misunderstanding of the divine will, the True Way preached it as a sign of strength and faith.

There were enough desperate conflicts in the wake of the Scream to leave many people more than willing to see their enemies bent backward over an altar. The True Way promised power and justice and revenge, and it had a zealous confidence that attracted vast numbers of lost and confused souls. A series of horrific attacks sent the Old Wayist believers reeling, and won the Burning Mirror Compact the planets they still hold today.

The war has intensified in the past fifty years as both sides have finally managed to begin industrial-scale production of combat starships. The Burning Mirror remains confident that victory will be theirs in the end; their vast supplies of slave labor combined with the rare earths of Xochitla give them an edge on output over the Flower Union, even though the Flower Union is far richer in most other consumer goods. The nobles and governors who serve the Council of Priests on Tlayacac have no cause to complain of austerity in their own lives.

Still, the Burning Mirror Compact is anything but decayed. It is absolutely and unflinchingly convinced of its rightness and the truth of the faith it bears. The world was made for the benefit of the strong, and it is only when the strong rule that the weak have the consolations of peace. Anything and everything is acceptable for those who serve the purposes of the faith, and the countless wretched prisoners and slaves who go to the altars go as symbols of the Burning Mirror’s strength and implacable will.

The Everlasting

A sinister cabal of immortal maltech bioscientists, the Everlasting plan to seize control of the sector through the insidious blandishments of their forbidden longevity technology.

ATTRIBUTES	Force 2, Cunning 4, Wealth 4
HIT POINTS	18
ASSETS	Medical Center/Wealth 4 on Hutton Laboratory/Wealth 3 on Hutton Smugglers/Cunning 1 on Hutton Seductress/Cunning 2 on Gateway
TAGS	Machiavellian, Planetary Government of Hutton
FACCREDITS/TURN	3
HOMEWORLD	Hutton
GOAL	Establish a Base of Influence on Gateway.

The shantytowns and port cities of Hutton are little more than the degenerate hunting grounds for the soulless maltech masters known as the Everlasting. Dwelling in remote jungle fortresses or mountain citadels, these scientists have mastered the art of prolonging human life almost indefinitely by transplanting vital organs from other donors. The youngest of them, little more than a century old, can get by with parts from almost any healthy young human implanted no more than once or twice a month. The oldest are over six hundred years old, and require selected fragments and organs from dozens of healthy donors each week.

While Hutton provides these dark rulers with all they require in the way of basic supplies and mortal entertainment, the more elaborate implements of their trade require dealing with offworlders. The Everlasting have incredible medical talents and can cure almost any genetic defect or illness known to humanity; they do a brisk trade with the rich, amoral, and desperate. Some of the Everlasting are content with this arrangement, desiring only solitude and spare parts as they delve deeper into the deep secrets of the human body.

Most are not so satisfied. A network of agents operates on several nearby worlds, working to lure rulers and politicians into taking advantage of the special gifts the Everlasting offer to their friends. Youth, vitality, health in the face of death- these things are powerful temptations. Sacrifices must be made for them, of course, but who would regret the loss of a few dozen feral Huttonite murderers and child-pimps to save a beloved daughter's life? Once the compromise is made, the Everlasting do not let their new friend forget the debt.

Gateway is their chief worry of late. The traditional neutrality of the Republic is tested by the horrors that Hutton represents, and some freelance Gateway adventurers and missionaries are making potentially dangerous inroads into the chaos of Huttonite society. They need to make a few more "friends" among the Gateway senate and ensure that such meddling is halted by governmental authority- all to ensure that the upright people of Gateway are not contaminated by the filth of Hutton's depraved culture, of course.

The Republic of Gateway

The Republic of Gateway was once the capital of the sector government, and it maintains an old pride in its former preeminence.

ATTRIBUTES	Force 6, Cunning 3, Wealth 3
HIT POINTS	24
ASSETS	Postech Infantry/Force 4 on Gateway Planetary Defenses/Force 6 on Gateway Postech Industry/Wealth 3 on Gateway Informers/Cunning 1 on Gateway
TAGS	Deep Rooted, Planetary Government of Gateway
FACCREDITS/TURN	4
HOMEWORLD	Gateway
GOAL	Peaceable Kingdom

Gateway has always been an important world in the sector, and it prides itself on being an island of decency and honest government in a bad stellar neighborhood. The neighboring worlds of Gansu, Hutton, and Tide make for questionable company, and Gateway has cherished a distinct neutrality whenever possible.

This desire for peace and calm is tested by the growing unrest in the sector. The Silence is fading, and with it more and more of the local worlds are reaching out into near space. None of them have the weight of ships necessary for a full-dress planetary invasion yet, but some worry that it's only a matter of time before Gateway finds itself facing a coalition it has no hope of defeating.

A strong segment of the Gateway Senate is arguing for a wider outreach to the other worlds of the sector, insisting on exploratory missions to revive old drill routes and rediscover the half-legendary stars marked on maps that were current six centuries ago.

This "Scout faction" is currently overruled by the dominant "Peace faction", one that wishes to concentrate on internal development and securing harmony on their own world first. Law and government on Gateway is reasonably fair and open, but there remain vast gulfs between the poorest and richest on the world. Many of the more impoverished are tempted to seek salvage permits from the Gateway Salvage Board, gaining permission to attempt to loot the ancient sealed villas and bunkers of the pre-Scream wealthy. Many of them never return, claimed by centuries-old autonomic defense systems and runaway maltech research that had been kept sealed since the start of the Silence.

SECTOR NAME *Hydra Sector*

The Flower Union (Coatlan, Octlan, and Tlapan), the Burning Mirror Compact (Xaltepec, Xochitla, Tlayacac), the Republic of Gateway

Hoosh (Coatlan)



----- Known trade route

Be advised that the navigational data indicated in this publication reflects only public and current information. No representation of completeness is made, and captains intending to set course for unlisted stars are advised to consult with private parties familiar with the course bearings.

WORLD TRAVEL INFORMATION

- Bakassi** Breathable atmosphere, highly dangerous ecosystem. Sole starport operated by ViridiCorp pharmaceutical company with funding and personnel support from Gansu state combine. The local plant life is an integral ingredient in several advanced medical compounds. Reports exist of labor irregularities with the Gansu elements of the operation, and the Republic cannot guarantee safety for citizens who choose to seek employment on Bakassi.
- Chifeng** Breathable atmosphere, glacier-dotted water world. Only major settlement is Chaoyang, which is inset into a glacier that has been fitted with aquajet engines to avoid periodic migrations of yellowbeaks. Ice monasteries exist on other glaciers, along with other small fishing settlements. Major industry is support of the interstellar trade to and from the worlds of the Flower Union and the Burning Mirror Compact.
- Coatlan** Breathable atmosphere, frigid tundra-world. Member of the Flower Union. Human population shares the world with the humanoid Hoosh. Contact with the Hoosh is inadvisable, especially in the absence of adequate defensive measures.
- Gansu** Breathable atmosphere, hot savannah world. Ruled by officials of the Reformed Neo-Communist Party. Landing is at a captain's own risk; violations of Gansuan law and custom are punished with utmost severity and the Gateway consul is unlikely to be able to render meaningful assistance.
- Gateway** Breathable atmosphere, widely varied climate. Former capital of the sector during the Terran Mandate period, and still the most highly-developed planet in sector space. Known for its enlightened representative government and caches of pretech supplies and research data. Parties interested in salvage permits should contact the Gateway Salvage Board.
- Hutton** Breathable atmosphere, hot jungle world. Republic law forbids landing for Gateway-flagged ships. The natives appear utterly devoid of civilized mores and the safety of visitors cannot be hoped for, let alone assured. Please note that Hutton medical services and technology are not legal for import to Gateway.
- Liberty** Thin atmosphere, tolerable surface temperatures. Pressure masks required for surface travel. Natives appear to be remnants of the convict population freed from Sepulchre before the Scream. No technology more sophisticated than scavenged breath masks; ships must tend to their own refueling needs as no service station is present in this system.
- Octlan** Breathable atmosphere, cold and mountainous terrain. Industrial hub of the Flower Union and chief trading world for merchants dealing with Far Aztlan space. Substantial factory development and tech export. Captains should be watchful for Burning Mirror Compact privateers.
- Sepulchre** Thick atmosphere, extremely broken, jagged terrain. Prison world before the Scream, mining the rare earths found in relative abundance on the world. Current population is largely bandits, scavengers, petty dictators, camp followers, and the detritus of their failed predecessors. Oxygen supplies necessary for life. Most natives inhabit sealed "spire cities".
- Sirocco** Inert gas atmosphere, cold hilly terrain. Information on this world is limited, as contact has been renewed only recently. Air supplies necessary for surface activity. Local feudal lords appear to be powerful psychics, but overall technological sophistication is low.
- Tecalco** Breathable atmosphere, rugged terrain with a temperate climate. Travel strongly discouraged; the planet is a war zone between ground forces of the Flower Union and the Burning Mirror Compact. Some traffic exists due to the Temple of the Clear Sky, a psionic academy that maintains a relative degree of neutrality. Planetary natives are unsurprisingly hostile toward outsiders.
- Tide** Breathable atmosphere, temperate water world with few stable islands. Tide is presently still developing spaceflight industries, and the vast majority of transport is via surface marine shipping. Aerial navigation is hampered by numerous semi-submerged alien ruins with active anti-air defenses. Local political structure is led by the "Empress of Storms" and involvement with local politics is strongly discouraged.
- Tlapan** Breathable atmosphere, hot fern jungles. Capital of the Flower Union and site of the Mixcoac Spaceyards. Substantial astrotechnical trading opportunities, but the system is harried by Burning Mirror Compact raiders.
- Tlayacac** Breathable atmosphere, temperate agri-world. Capital of the Burning Mirror Compact. Landing by Gateway citizens is strongly discouraged; violation of local religious norms is commonly punished by death.
- Vyborg** Breathable atmosphere, cold taiga world. Gynocratic pre-spaceflight industrial culture balkanized into multiple nation-states. Males are kept medically pacified outside of military use. Interference in local customs is inadvisable.
- Xaltepec** Breathable atmosphere, temperate badlands world. Large portions of the planet are radioactive ruins, with the remainder being semi-sealed hab zones ruled by the Burning Mirror Compact. Salvage possibilities are substantial, but some accommodation with the local authorities will likely be necessary.
- Xochitla** Breathable atmosphere, superheated local temperatures. Mining world under the control of the Burning Mirror Compact. Rare earths are extracted from rivers of molten metal. Habitation centered around bubble cities ruled by "Iron Lords". Chillsuits necessary for outdoor activity. Visitors must be ready to provide "tribute" to the local tax collectors at any time.

Welcome to Gateway, spacer...

We're glad to have you!

But before you pull on your shore suit and hit the town, let us at the Gateway Navigation Bureau tip you off on the lay of the land. Don't worry. You'll be having plenty of fun here if you're willing to behave.

Weapons are restricted to sidearms only while within city limits. No explosives, either! Outside city limits, you can pack what you like so long as it's man-portable. Individual establishments may limit permitted sidearms. Keep your rifles aboard ship unless you're planning on doing some hunting.

Armor is restricted to civilian-grade protective suits within city limits. Keep that engine room exosuit aboard the ship, spacer! The shore patrol will have to play rough if stun batons won't settle down a situation.

Drugs and Alcohol of all kinds are permitted on Gateway. Handle your fun, spacer. Intoxication is an aggravating factor in criminal infractions.

Prostitution, Gambling, and Dancing are all on tap here on Gateway. But remember to mind your manners! Roughing the boys and girls or stiffing the house is a good way for the shore police to find you in a real bad way when they come to arrest you. Our shore patrols are not famously sympathetic to troublemakers.

Bunker Salvaging is a great way to try for a few bonus credits on a long layover. Just register with the Gateway Salvage Board, and you can be added to the list of authorized bunker salvagers. Hundreds of antique pre-Scream bunkers, villas, and fortified compounds await men and women brave enough to crack them open and shake out the loot! Please file an updated next-of-kin form before registering with the Salvage Board

Looking for work? Check in at the Spacer Brotherhood Hall at the Touchpoint Spaceport. Captains are always looking for new hands, and a seasoned spacer like you is sure to find a quick berth

offworld! In fact, we here at the Bureau are hoping you find one *real soon* after you're done having fun!

Gateway at a Glance

Population	3,215,000
Capital City	Touchpoint, pop. 455,000
Head of State	President Dolores Santos
Atmosphere	Breathable, non-allergenic
Climate	Tropical lowlands and verdant rain forests leading up to cooler grassy plateaus and snowy mountains.
Major Cities	Keyhole, pop. 305,000 High Cape, pop. 155,000 Silverline, pop. 124,000
Government	Representative democracy, with local regions electing Council Representatives and regional Senators. Government is clean and honest here on Gateway, as befits the former capital of the sector under the Terran Mandate.

This flyer sponsored by our friends at...

Rusty Jack's Spaceport Bar	ComCode A887BH
<i>Touchpoint's favorite watering hole for spacers from around the sector. Friendly barkeep, strong drinks, and ship-calibrated air recirculator for that homey starship smell.</i>	
Miss Lucille's House	ComCode 7B144G
<i>Clean and affectionate service for the lonely spacer. All tastes accommodated at reasonable prices, with medical records available for inspection. Temporary help hired seasonally during naval exercises.</i>	
Brannigan's Supply	ComCode 199HJ1
<i>If it shoots, beams, cuts, or crushes, Brannigan can get it for you cheaper! Full range of bunker salvage supply available as well. Preowned pieces available at deep discounts.</i>	
Old Way Temple	ComCode TLALOC
<i>Feeling lost? Unsure about your future in this uncertain cosmos? Come talk to us. The Teotl can help you find a clean heart in a strong body. Free meal offered nightly after the sermon.</i>	

...enjoy your stay!

CHAPTER SIXTEEN

GAME MASTER RESOURCES

The following pages include a number of tables for the quick generation of NPC statistics, names, place names, and random character traits, among many other things. The tables are in no way intended to be exhaustive or particularly detailed. They are simply quick conveniences for the GM to spare constant reference to the internet or other books to nail down the basic flavoring of their worlds or NPCs.

Knowledgeable GMs will doubtless find simplifications and errors in the tables that follow, but knowledgeable GMs should be able to correct them without difficulty. Unless the players are of equally perspicacious capabilities, they are unlikely to either notice or care if small details are off so long as a general flavor and feeling is preserved in the presentation.

After the index, you will also find a number of blank record sheets to assist in making up the Sector File of your particular corner of the galaxy, along with character and starship record sheets for the convenience of you and your players.

1D100	MALE	FEMALE	SURNAME
1-4	Aamir	Aisha	Abdel
5-8	Ayub	Alimah	Awad
9-12	Binyamin	Badia	Dahhak
13-16	Efraim	Bisharah	Essa
17-20	Ibrahim	Chanda	Hanna
21-24	Ilyas	Daliya	Harbi
25-28	Ismail	Fatimah	Hassan
29-32	Jibril	Ghania	Isa
33-36	Jumanah	Halah	Kasim
37-40	Kazi	Kaylah	Katib
41-44	Lut	Khayrah	Khalil
45-48	Matta	Layla	Malik
49-52	Mohammed	Mina	Mansoor
53-56	Mubarak	Munisa	Mazin
57-60	Mustafa	Mysha	Musa
61-64	Nazir	Naimah	Najeeb
65-68	Rahim	Nissa	Namari
69-72	Reza	Nura	Naser
73-76	Sharif	Parveen	Rahman
77-80	Taimur	Rana	Rasheed
81-84	Usman	Shalha	Saleh
85-88	Yakub	Suhira	Salim
89-92	Yusuf	Tahirah	Shadi
93-96	Zakariya	Yasmin	Sulaiman
97-100	Zubair	Zulehka	Tabari

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Adan	51-52	Magrit
3-4	Ahsa	53-54	Masqat
5-6	Andalus	55-56	Misr
7-8	Asmara	57-58	Muruni
9-10	Asqlan	59-60	Qabis
11-12	Baqubah	61-62	Qina
13-14	Basit	63-64	Rabat
15-16	Baysan	65-66	Ramlah
17-18	Baytlahm	67-68	Riyadh
19-20	Bursaid	69-70	Sabtah
21-22	Dahilah	71-72	Salalah
23-24	Darasalam	73-74	Sana
25-26	Dawhah	75-76	Sinquit
27-28	Ganin	77-78	Suqutrah
29-30	Gebal	79-80	Sur
31-32	Gibuti	81-82	Tabuk
33-34	Giddah	83-84	Tangah
35-36	Harmah	85-86	Tarifah
37-38	Hartum	87-88	Tarrakunah
39-40	Hibah	89-90	Tisit
41-42	Hims	91-92	Uman
43-44	Hubar	93-94	Urdunn
45-46	Karbala	95-96	Wasqah
47-48	Kut	97-98	Yaburah
49-50	Lacant	99-100	Yaman

Arabic Names

Arabic names can be complex in construction. They begin with a single given name, an *ism*, followed by one or more additional elements based on virtuous epithets, occupations, lineal line, or honorifics.

A common element of Arabic names is an honorific based on fatherhood or motherhood. Nazir, the he father of Zubair, for instance, might be known as “Abu Zubair Nazir”, and Halah, the mother of Sharif, would be known as “Umm Sharif Halah”, in addition to whatever other elements followed the *ism*.

Place-name elements are also common to refer to a native of a particular locale, and almost any place name can be jury-rigged into a surname with the addition of “al-” and a suffixed “i”, such as turning Yakub, a native of Hubar, into “Yakub al-Hubari”.

These rules are simply a rough and somewhat inaccurate approximation of the complexities involved in a reproduction of Arabic naming conventions. Naturally, the worlds you create may no longer follow such particulars, or might be a great deal looser about them.

Arabic Clothing

Traditional clothing might be found on Arab-culture worlds. For men, this includes the *thobe*, a long robe-like garment often in bright white or earth tones, the *kuffiyah*, a checked scarf worn on the head, the *bisht*, a dark-colored over-robe worn over the thobe in cold weather or on formal occasions, or a round crocheted cap known as a *taqiyah*.

Clothing for women will vary depending on whether or not strict standards of traditional Islamic modesty exist on the world. A traditional *abayah* is a long garment that covers all but the face, hands, and feet, and may be worn with a *niqab* face veil. A *jilbab* is less concealing, being a long coat or tunic that covers the arms and falls to the ankles.

Arabic Cuisine

Arab culture prizes the virtue of hospitality, and guests can often expect to be invited to a meal. Traditional cuisine favors lamb, chicken, and beef, with dates, grain dishes, legumes, and vegetables such as cucumbers and aubergines. Coffee and tea are relished when available, but strict Islamic worlds will forbid pork and alcoholic beverages.

1D100	MALE	FEMALE	SURNAME
1-4	Aiguo	Biyu	Bai
5-8	Bohai	Changying	Cao
9-12	Chao	Daiyu	Chen
13-16	Dai	Huidai	Cui
17-20	Dawei	Huiliang	Ding
21-24	Duyi	Jia	Du
25-28	Fa	Jingfei	Fang
29-32	Fu	Lan	Fu
33-36	Gui	Liling	Guo
37-40	Hong	Liu	Han
41-44	Jianyu	Meili	Hao
45-48	Kang	Niu	Huang
49-52	Li	Peizhi	Lei
53-56	Niu	Qiao	Li
57-60	Peng	Qing	Liang
61-64	Quan	Ruolan	Liu
65-68	Ru	Shu	Long
69-72	Shen	Suyin	Song
73-76	Shi	Ting	Tan
77-80	Song	Xia	Tang
81-84	Tao	Xiaowen	Wang
85-88	Xue	Xiulan	Wu
89-92	Yi	Ya	Xing
93-96	Yuan	Ying	Yang
97-100	Zian	Zhilan	Zhang

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Andong	51-52	Luzhou
3-4	Anqing	53-54	Ningxia
5-6	Anshan	55-56	Pingxiang
7-8	Chaoyang	57-58	Pizhou
9-10	Chaozhou	59-60	Qidong
11-12	Chifeng	61-62	Qingdao
13-14	Dalian	63-64	Qinghai
15-16	Dunhuang	65-66	Rehe
17-18	Fengjia	67-68	Shanxi
19-20	Fengtian	69-70	Taiyuan
21-22	Fuliang	71-72	Tengzhou
23-24	Fushun	73-74	Urumqi
25-26	Gansu	75-76	Weifang
27-28	Ganzhou	77-78	Wugang
29-30	Guizhou	79-80	Wuxi
31-32	Hotan	81-82	Xiamen
33-34	Hunan	83-84	Xian
35-36	Jinan	85-86	Xikang
37-38	Jingdezhen	87-88	Xining
39-40	Jinxi	89-90	Xinjiang
41-42	Jinzhou	91-92	Yidu
43-44	Kunming	93-94	Yingkou
45-46	Liaoning	95-96	Yuxi
47-48	Linyi	97-98	Zigong
49-50	Lushun	99-100	Zoige

Chinese Names

Chinese names are customarily used with the surname preceding the given name- so Xiulan of the Wu family is “Wu Xiulan”. Depending on cultural predominance, other groups on the planet may share this order with their own names- i.e., “Smith John”, or the name order may be inverted. When addressing a person, it is common to use both elements of his or her name, rather than simply using their given name.

The names above are given in Pinyin transliteration, which does not necessarily share a great deal with the pronunciation of the English letters involved. As a quick reference, here are only some of the larger differences:

C is pronounced with a sharp ts as in *spats*.

G is pronounced in most of the worlds above as if it were a k as in *skill*.

Q somewhat resembles the sound of ch in *cheek*.

X is pronounced with a sh sound, similar to that of *she*.

ZH is pronounced in a somewhat similar fashion to ch as in *choke*.

The finer points are likely to be compassed only by someone who already speaks the language, but the above should assist in adding flavor to the names.

Chinese Clothing

Traditional Chinese clothing is not much in evidence in these days, but might make a reappearance on some worlds. For men, this might include the *zhiju*, a long robe with wide sleeves and a lapel folded over and held closed by a sash. Also possible is a *yi*, a narrow-sleeved tunic that runs to the knees, bound with a sash and worn with a skirt called a *chang* and an length of fabric folded over it known as a *bixi* that goes to the knees.

Women might be found wearing a *qipao*, with older styles consisting of a high-necked, loose-fitting dress with broad sleeves. More modern versions tend to be quite snug-fitting and shorten the sleeves to the upper arms. More loose-fitting dress might consist of the *quju*, similar to the masculine *zhiju* save for a left lapel long enough to wrap once around the wearer’s torso before being sashed in place.

Chinese Cuisine

Traditional Chinese cuisine varies widely, but rice is the staple grain and is used in the fashioning of noodles, buns, dumplings, fermented drinks, and other comestibles. Tofu is sometimes found in place of meat, and rice wine and tea are common drinks. Stir-frying is a common preparation technique for many foods.

1D100	MALE	FEMALE	SURNAME
1-4	Adam	Abigail	Barker
5-8	Albert	Anne	Brown
9-12	Alfred	Beatrice	Butler
13-16	Allan	Blanche	Carter
17-20	Archibald	Catherine	Chapman
21-24	Arthur	Charlotte	Collins
25-28	Basil	Claire	Cook
29-32	Charles	Eleanor	Davies
33-36	Colin	Elizabeth	Gray
37-40	Donald	Emily	Green
41-44	Douglas	Emma	Harris
45-48	Edgar	Georgia	Jackson
49-52	Edmund	Harriet	Jones
53-56	Edward	Joan	Lloyd
57-60	George	Judy	Miller
61-64	Harold	Julia	Roberts
65-68	Henry	Lucy	Smith
69-72	Ian	Lydia	Taylor
73-76	James	Margaret	Thomas
77-80	John	Mary	Turner
81-84	Lewis	Molly	Watson
85-88	Oliver	Nora	White
89-92	Philip	Rosie	Williams
93-96	Richard	Sarah	Wood
97-100	William	Victoria	Young

English Names

English names often include a second “middle” given name, sometimes related to a relative’s name or a figure of importance.

English Cuisine

Traditional English cuisine relies heavily on boiled beef and mutton, fish, root vegetables, and pies with a variety of fillings. Roast beef or mutton often appears as a Sunday dinner along with roasted potatoes or other root vegetables. “Fish and chips” with malt vinegar are a form of fast food common to small shops and stalls. Contemporary English cuisine also has enthusiastically adopted curries and other dishes prevalent in the former British Empire.

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Aldington	51-52	Kedington
3-4	Appleton	53-54	Latchford
5-6	Ashdon	55-56	Leigh
7-8	Berwick	57-58	Leighton
9-10	Bramford	59-60	Maresfield
11-12	Brimstage	61-62	Markshall
13-14	Carden	63-64	Netherpool
15-16	Churchill	65-66	Newton
17-18	Clifton	67-68	Oxton
19-20	Colby	69-70	Preston
21-22	Copford	71-72	Ridley
23-24	Cromer	73-74	Rochford
25-26	Davenham	75-76	Seaford
27-28	Dersingham	77-78	Selsey
29-30	Doverdale	79-80	Stanton
31-32	Elsted	81-82	Stockham
33-34	Ferring	83-84	Stoke
35-36	Gissing	85-86	Sutton
37-38	Heydon	87-88	Thakeham
39-40	Holt	89-90	Thetford
41-42	Hunston	91-92	Thorndon
43-44	Hutton	93-94	Ulting
45-46	Inkberrow	95-96	Upton
47-48	Inworth	97-98	Westhorpe
49-50	Isfield	99-100	Worcester

English Clothing

Tweeds, woolens, and jackets can serve to characterize the flavor of English couture, much of which has joined with the sartorial standards of other Continental and American tastes to form the de facto uniform for the wealthy and important in the modern age. A GM may wish to call back to Victorian styles of fitted coats and vests, with top hats and bowlers and walking sticks as accessories. Hot worlds might favor pith helmets, khakis, and light dresses for the women.

1D100	MALE	FEMALE	SURNAME
1-4	Amrit	Amala	Achari
5-8	Ashok	Asha	Banerjee
9-12	Chand	Chandra	Bhatnagar
13-16	Dinesh	Devika	Bose
17-20	Gobind	Esha	Chauhan
21-24	Harinder	Gita	Chopra
25-28	Jagdish	Indira	Das
29-32	Johar	Indrani	Dutta
33-36	Kurien	Jaya	Gupta
37-40	Lakshman	Jayanti	Johar
41-44	Madhav	Kiri	Kapoor
45-48	Mahinder	Lalita	Mahajan
49-52	Mohal	Malati	Malhotra
53-56	Narinder	Mira	Mehra
57-60	Nikhil	Mohana	Nehru
61-64	Omrao	Neela	Patil
65-68	Prasad	Nita	Rao
69-72	Pratap	Rajani	Saxena
73-76	Ranjit	Sarala	Sharma
77-80	Sanjay	Sarika	Sharma
81-84	Shankar	Sheela	Singh
85-88	Thakur	Sunita	Trivedi
89-92	Vijay	Trishna	Venkatesan
93-96	Vipul	Usha	Verma
97-100	Yash	Vasanta	Yadav

Indian Names

Traditional Indian naming conventions vary wildly depending on the region of India in question. Some areas use only a single given name, sometimes prefaced by the first initial of their father's name to help distinguish them. Others sometimes use a profession for a surname, such as "Kiri Navigator" or "Johar Pilot". Some regions favor a first name, middle name, last name construction.

Indian Cuisine

Curries are a famously popular product of Indian cuisine, and come in a broad range of vegetable and meat varieties. For religious reasons, a great deal of Indian cuisine is of vegetarian character, using rice, fruits, vegetables, various pulses, the clarified butter known as *ghee*, and a broad range of spices.

A form of unleavened flatbread called a *chapati* is often used with meals, with pieces being torn off to dip up food, or fragments of the bread used as scoops for some dishes. Chapatis are often made of wheat flour, but versions fashioned of corn, pearl barley, and other grains are known.

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Ahmedabad	51-52	Jaisalmer
3-4	Alipurduar	53-54	Jharonda
5-6	Alubari	55-56	Kadambur
7-8	Anjanadri	57-58	Kalasipalyam
9-10	Ankleshwar	59-60	Karnataka
11-12	Balarika	61-62	Kutchuhery
13-14	Bhanuja	63-64	Lalgola
15-16	Bhilwada	65-66	Mainaguri
17-18	Brahmaghosa	67-68	Nainital
19-20	Bulandshahar	69-70	Nandidurg
21-22	Candrama	71-72	Narayanadri
23-24	Chalisingaon	73-74	Panipat
25-26	Chandragiri	75-76	Panjagutta
27-28	Charbagh	77-78	Pathankot
29-30	Chayanka	79-80	Pathardih
31-32	Chittorgarh	81-82	Porbandar
33-34	Dayabasti	83-84	Rajasthan
35-36	Dikpala	85-86	Renigunta
37-38	Ekanga	87-88	Sewagram
39-40	Gandhidham	89-90	Shakurbasti
41-42	Gollaprolu	91-92	Siliguri
43-44	Grahisa	93-94	Sonepat
45-46	Guwahati	95-96	Teliwara
47-48	Haridasva	97-98	Tinpahar
49-50	Indraprastha	99-100	Villivakkam

Indian Clothing

Traditional women's clothing includes a number of different styles and pieces, perhaps the most famous being the *sari*, a length of seamless cloth carefully wrapped and draped around the wearer. Saris are commonly worn in conjunction with a petticoat and a cropped, snug-fitting blouse known as a *choli*. In some cases, the sari is given over in favor of a choli and a long skirt known as a *langa* in a combination often worn by younger girls. The *salwar kameez* is a popular combination for women of all ages, consisting of the salwar, a pair of light, baggy leggings, and the kameez, a long, loose shirt with long sleeves.

Men occasionally wear the salwar kameez as well, though they can also be found in the unisex *kurta*, a long-sleeved shirt that falls to the wearer's knees. The *dhoti* is also a customary item of male apparel, consisting of a long strip of unstitched cloth that is wrapped around the wearer's hips and knotted at the waist, the drape falling past the wearer's knees. A kurta and dhoti are a common combination.

1D100	MALE	FEMALE	SURNAME
1-4	Akira	Aemi	Abe
5-8	Daisuke	Airi	Arakaki
9-12	Fukashi	Ako	Endo
13-16	Goro	Ayu	Fujiwara
17-20	Hiro	Chikaze	Goto
21-24	Hiroya	Eriko	Ito
25-28	Hotaka	Hina	Kikuchi
29-32	Katsu	Kaori	Kinjo
33-36	Katsuto	Keiko	Kobayashi
37-40	Keishuu	Kyouka	Koga
41-44	Kyuuto	Mayumi	Komatsu
45-48	Mikiya	Miho	Maeda
49-52	Mitsunobu	Namiko	Nakamura
53-56	Mitsuru	Natsu	Narita
57-60	Naruhiko	Nobuko	Ochi
61-64	Nobu	Rei	Oshiro
65-68	Shigeo	Ririsa	Saito
69-72	Shigeto	Sakimi	Sakamoto
73-76	Shou	Shihoko	Sato
77-80	Shuji	Shika	Suzuki
81-84	Takaharu	Tsukiko	Takahashi
85-88	Teruaki	Tsuzune	Tanaka
89-92	Tetsushi	Yoriko	Watanabe
93-96	Tsukasa	Yorimi	Yamamoto
97-100	Yasuharu	Yoshiko	Yamasaki

Japanese Names

Japanese names follow the pattern of family name-given name. Thus Shika of the Goto family is “Goto Shika”. Depending on local tradition and social stratification, commoners might lack a surname entirely, instead going by the place-name of their residence when a surname is necessary.

Japanese Cuisine

Japanese cuisine traditionally makes heavy use of rice and seafood, with substantial use of vegetables and relatively limited amounts of other meats. Grilling and steaming are popular methods for food preparation, as are soups of chopped vegetables and assorted forms of rice and wheat-based noodles. Dried and pickled food is a common element on worlds that lack easy global transport for perishable foodstuffs, and even then, custom encourages consumption of fresh, seasonal foods. Tea and the rice wine *sake* are common drinks.

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Bando	51-52	Mitsukaido
3-4	Chikuma	53-54	Moriya
5-6	Chikusei	55-56	Nagano
7-8	Chino	57-58	Naka
9-10	Hitachi	59-60	Nakano
11-12	Hitachinaka	61-62	Ogi
13-14	Hitachiomiya	63-64	Okaya
15-16	Hitachiota	65-66	Omachi
17-18	Iida	67-68	Ryugasaki
19-20	Iiyama	69-70	Saku
21-22	Ina	71-72	Settsu
23-24	Inashiki	73-74	Shimotsuma
25-26	Ishioka	75-76	Shiojiri
27-28	Itako	77-78	Suwa
29-30	Kamisu	79-80	Suzaka
31-32	Kasama	81-82	Takahagi
33-34	Kashima	83-84	Takeo
35-36	Kasumigaura	85-86	Tomi
37-38	Kitaibaraki	87-88	Toride
39-40	Kiyose	89-90	Tsuchiura
41-42	Koga	91-92	Tsukuba
43-44	Komagane	93-94	Ueda
45-46	Komoro	95-96	Ushiku
47-48	Matsumoto	97-98	Yoshikawa
49-50	Mito	99-100	Yuki

Japanese Clothing

The *kimono* is the most widely-known element of traditional Japanese couture, consisting of a long silk robe that falls to the wearer’s ankles. Women’s kimonos can have extremely wide, draping sleeves, while men’s kimonos favor more restrained cuffs. Kimonos are worn with a belt-like sash known as an *obi*, with female obis being wider and more elaborately decorated than those of men. Some styles of wearing involve as many as a dozen layers of under-robos for women in order to produce intricate layering effects. The correct assembly and folding of a kimono for wear can be an exceedingly intricate endeavor.

For less formal occasions or when work needs make such impractical, the *yukata* might be worn, a wide-sleeved robe in patterned colors that is folded left over right and bound with an obi. Wooden sandals called *geta* might be employed, possibly in conjunction with split-toed *tabi* socks.

Traditional clothing colors tend to the vivid and intricately patterned, either with repeating motifs or weaves or a full-flowing brocade or dyeing. Younger people tend to wear brighter colors and more elaborate patterns than their elders.

1D100	MALE	FEMALE	SURNAME
1-4	Adesegun	Abike	Adegboye
5-8	Akintola	Adesuwa	Adeniyi
9-12	Amabere	Adunola	Adeyeku
13-16	Arikawe	Anguli	Adunola
17-20	Asagwara	Arewa	Agbaje
21-24	Chidubem	Asari	Akpan
25-28	Chinedu	Bisola	Akpehi
29-32	Chiwetei	Chioma	Alik
33-36	Damilola	Eduwa	Asuni
37-40	Esangbedo	Emilohi	Babangida
41-44	Ezenwoye	Fehintola	Ekim
45-48	Folarin	Folasade	Ezeiruaku
49-52	Genechi	Mahparah	Fabiola
53-56	Idowu	Minika	Fasola
57-60	Kelechi	Nkolika	Nwokolo
61-64	Ketanndu	Nkoyo	Nzeocha
65-68	Melubari	Nuanae	Ojo
69-72	Nkanta	Obioma	Okonkwo
73-76	Obafemi	Olafemi	Okoye
77-80	Olatunde	Shanumi	Olaniyan
81-84	Olumide	Sominabo	Olawale
85-88	Tombari	Suliat	Olumese
89-92	Udofia	Tariere	Onajobi
93-96	Uyoata	Temedire	Soyinka
97-100	Uzochi	Yemisi	Yamusa

Nigerian Names

Nigerian naming patterns do not have a surname as such, but instead take two given names and add to it the name of a father, grandfather, or other important ancestor. Given names are provided by the parents, and additional names might be given by family members as epithets speaking of the child's wished-for virtues.

Nigerian Cuisine

The cuisine of Nigeria favors a number of herbs, spices, and sauces involving palm or peanut oil. Potent chili peppers are present in many dishes. Grilled meat kebabs known as *suya* are rolled in crushed peanuts and hot spices, and are a staple of roadside stalls. Jollof rice is another common dish, composed of rice, tomatoes and tomato paste, onions, salt, and a number of spices along with whatever convenient meats or vegetables can be diced into the whole. A rich, spicy meat stew known as *maafe* has a variable composition, but generally involves tomatoes and chili pepper. Palm wine made from fermented palm sap, or its stronger distilled version, *ogogoro*, serves those able to drink it before the sap sours and turns to vinegar a few days after tapping.

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Abadan	51-52	Jere
3-4	Ador	53-54	Kalabalge
5-6	Agatu	55-56	Katsina
7-8	Akamkpa	57-58	Knoduga
9-10	Akpabuyo	59-60	Konshishatse
11-12	Ala	61-62	Kukawa
13-14	Askira	63-64	Kwande
15-16	Bakassi	65-66	Kwayakusar
17-18	Bama	67-68	Logo
19-20	Bayo	69-70	Mafa
21-22	Bekwara	71-72	Makurdi
23-24	Biase	73-74	Nganzai
25-26	Boki	75-76	Obanliku
27-28	Buruku	77-78	Obi
29-30	Calabar	79-80	Obubra
31-32	Chibok	81-82	Obudu
33-34	Damboa	83-84	Odukpani
35-36	Dikwa	85-86	Ogbadibo
37-38	Etung	87-88	Ohimini
39-40	Gboko	89-90	Okpokwu
41-42	Gubio	91-92	Otukpo
43-44	Guzamala	93-94	Shani
45-46	Gwoza	95-96	Ugep
47-48	Hawul	97-98	Vandeikya
49-50	Ikom	99-100	Yala

Nigerian Clothing

Nigerian clothing often involves rich colors and patterns and styles drawn from the traditional dress of specific tribes. One common element of dress for both men and women is the *buba*, a long-sleeved, thigh-length shirt that is often embroidered or patterned. Men might also favor the traditional round, brimless, close-fitting hat known as the *kufi*, or a softer embroidered cap that slouches over one ear called the *fila*.

Women might wear a *buba* along with a wrapper-skirt known as an *iro*. Formal iros might be lace, satin, or richly brocaded cloth, while less formal versions might simply be colored in bright patterns or indigo *adire* tie-dye. A matching headwrap known as a *gele* is usually knotted and folded to complement the *iro*.

1D100	MALE	FEMALE	SURNAME
1-4	Aleksandr	Aleksandra	Abelev
5-8	Andrei	Anastasia	Bobrikov
9-12	Arkady	Anja	Chemerkina
13-16	Boris	Catarina	Gogunov
17-20	Dmitri	Devora	Gurov
21-24	Dominik	Dima	Iltchenko
25-28	Grigory	Ekaterina	Kavelin
29-32	Igor	Eva	Komarov
33-36	Ilya	Irina	Korovin
37-40	Ivan	Karolina	Kurnikov
41-44	Kiril	Katrina	Lebedev
45-48	Konstantin	Kira	Litvak
49-52	Leonid	Ludmilla	Mekhdiev
53-56	Nikolai	Mara	Muraviov
57-60	Oleg	Nadezdha	Nikitin
61-64	Pavel	Nastassia	Ortov
65-68	Petr	Natalya	Peshkov
69-72	Sergei	Oksana	Romasko
73-76	Stepan	Olena	Shvedov
77-80	Valentin	Olga	Sikorski
81-84	Vasily	Sofia	Stolypin
85-88	Viktor	Svetlana	Turov
89-92	Yakov	Tatyana	Volokh
93-96	Yegor	Vilma	Zaitsev
97-100	Yuri	Yelena	Zhukov

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Amur	51-52	Omsk
3-4	Arkhangelsk	53-54	Orenburg
5-6	Astrakhan	55-56	Oryol
7-8	Belgorod	57-58	Penza
9-10	Bryansk	59-60	Perm
11-12	Chelyabinsk	61-62	Pskov
13-14	Chita	63-64	Rostov
15-16	Gorki	65-66	Ryazan
17-18	Irkutsk	67-68	Sakhalin
19-20	Ivanovo	69-70	Samara
21-22	Kaliningrad	71-72	Saratov
23-24	Kaluga	73-74	Smolensk
25-26	Kamchatka	75-76	Sverdlovsk
27-28	Kemerovo	77-78	Tambov
29-30	Kirov	79-80	Tomsk
31-32	Kostroma	81-82	Tula
33-34	Kurgan	83-84	Tver
35-36	Kursk	85-86	Tyumen
37-38	Leningrad	87-88	Ulyanovsk
39-40	Lipetsk	89-90	Vladimir
41-42	Magadan	91-92	Volgograd
43-44	Moscow	93-94	Vologda
45-46	Murmansk	95-96	Voronezh
47-48	Novgorod	97-98	Vyborg
49-50	Novosibirsk	99-100	Yaroslavl

Russian Names

Russian surnames can often change gender depending on the gender of the person bearing them. If this is the case on this world, all surnames ending ending in “-ov” become “-ova” when worn by a woman and all names ending in “-in” become “-ina”. Names ending in other forms do not change.

Russian Cuisine

Russian cuisine relies heavily on cabbage and root crops along with assorted milk products. Cabbage soups are often consumed, as are other soups fashioned from a base of *kvass*, or fermented bread drink. Black rye bread is a staple among other forms of bread.

Meat is often found in boiled form, sometimes as an element of a stew. Baked meats are also used, as are *pelmeni* dumplings filled with minced meats. Similar dumplings filled with potato, rice, cabbage, or chopped hard-boiled egg are known as *pierogies*.

Vodka is perhaps the most characteristic drink of Russian cuisine, though tea is popular, as is kvass.

Russian Clothing

The fur *ushanka* is useful in cold weather, being a round fur hat with earflaps, as are the felted wool boots known as *valenki*, though most worlds will prefer versions that are waterproof rather than the original wool model. Men might also wear a Russian version of the *kafian*, consisting of an ankle-length, robe-like drape with wide sleeves often worn over an inner layer of clothing. The *kosovorotka* is another element of male dress, consisting of a long-sleeved tunic that falls to the wearer's thighs and has a skewed collar that is buttoned down from the left or right side of the wearer's neck rather than down the center.

Women might be seen in a *sarafan*, an unshaped ankle-length dress cinched high on the waist, occasionally worn with a corset. More elaborate is the *kokoshnik*, a fan-shaped headdress that can be elaborately decorated to match the rest of the woman's ensemble.

1D100	MALE	FEMALE	SURNAME
1-4	Alejandro	Adalina	Arellano
5-8	Alonso	Aleta	Arispana
9-12	Amelio	Ana	Borrego
13-16	Armando	Ascencion	Carderas
17-20	Bernardo	Beatriz	Carranzo
21-24	Carlos	Carmela	Cordova
25-28	Cesar	Celia	Enciso
29-32	Diego	Dolores	Espejo
33-36	Emilio	Elena	Gavilan
37-40	Estevan	Emelina	Guerra
41-44	Felipe	Felipa	Guillen
45-48	Francisco	Inez	Huertas
49-52	Guillermo	Isabel	Illan
53-56	Javier	Jacinta	Jurado
57-60	Jose	Lucia	Moretta
61-64	Juan	Lupe	Motolinia
65-68	Julio	Maria	Pancorbo
69-72	Luis	Marta	Paredes
73-76	Pedro	Nina	Quesada
77-80	Raul	Paloma	Roma
81-84	Ricardo	Rafaela	Rubiera
85-88	Salvador	Soledad	Santoro
89-92	Santiago	Teresa	Torrillas
93-96	Valeriano	Valencia	Vera
97-100	Vicente	Zenaida	Vivero

1D100	PLACE NAME	1D100	PLACE NAME
1-2	Aguascebas	51-52	Loreto
3-4	Alcazar	53-54	Lujar
5-6	Barranquete	55-56	Marbela
7-8	Bravatas	57-58	Matagorda
9-10	Cabezudos	59-60	Nacimiento
11-12	Calderon	61-62	Niguelas
13-14	Cantera	63-64	Ogijares
15-16	Castillo	65-66	Ortegicar
17-18	Delgadas	67-68	Pampanico
19-20	Donablanca	69-70	Pelado
21-22	Encinetas	71-72	Quesada
23-24	Estrella	73-74	Quintera
25-26	Faustino	75-76	Riguelo
27-28	Fuentebravia	77-78	Ruescas
29-30	Gafarillos	79-80	Salteras
31-32	Gironda	81-82	Santopitar
33-34	Higueros	83-84	Taberno
35-36	Huelago	85-86	Torres
37-38	Humilladero	87-88	Umbrete
39-40	Illora	89-90	Valdecazorla
41-42	Isabela	91-92	Velez
43-44	Izbor	93-94	Vistahermosa
45-46	Jandilla	95-96	Yeguas
47-48	Jinetes	97-98	Zahora
49-50	Limones	99-100	Zumeta

Spanish Names

Many Spanish names involve both a given name and two surnames, one from the surnames of each parent- thus Juan the son of Felipa Quesada Borrego and Amelio Arellano Vera would probably be Juan Quesada Arellano. Given names with multiple elements are also common- “Raul Diego Quesada Arellano”- and one occasionally finds the conjunction “y” inserted between the two surnames; “Jacinta Carderas y Santoro”. For casual purposes, the first of the two surnames is often all that is used, though the full name is preserved for legal and documentary purposes. Some worlds can grow quite baroque in their constructions.

Spanish Cuisine

Traditional Spanish cuisine favors pork, fish, meat-based stews, sausages, cheeses, and paellas. A “tortilla de patatas” of fried potatoes and onions with egg is a common staple. Sugared almonds and nougats often appear as sweets, as do rice puddings and flans. Wine is common, and occasionally strong apple ciders are involved. Olive oil is an important element of many dishes.

Spanish Clothing

Traditional Spanish couture often involves rich fabrics, stiff cloth, and Moorish-influenced adornments of embroidery, jewels, and heavy belts and collars. Women might affix their hair with a heavy *peineta*, a comb meant to jut high and support the drape of a lace *mantilla* over the wearer’s head and shoulders. Both men and women might wear a *gilet*, a sleeveless vest that can be cut either straight-sided or snugly fitted, and might be richly embroidered by the wealthy. Court dress for women might go so far as to involve *farthingales* beneath their skirts; great hoops meant to force the dress into a bell-like shape around the wearer, sometimes slanted high behind and low in front to elongate the torso and shorten the legs. Less formal occasions might recommend a *pollera* to a woman, a one-piece skirt of brightly-patterned cloth gathered with a few ruffles of embroidered cloth.

Quick NPC Creation

To generate a random NPC with these tables, simply pick up one die each for d4, d6, d8, d10, d12, and d20 and throw them all at once. The resultant numbers will generate a minor NPC.

The tables for gender, age, and height are self-explanatory. The table for problems gives a number of potential complications for the NPC's life, should you decide that they could use a few troubles. These problems might provoke them to approach the PCs for help, or goad them into using the PCs to solve their problem.

Job motivations suggest a reason behind the NPC's performance of their current career. A chop-shop medtech might be performing

under-the-table surgery for wanted criminals because he feels an idealistic obligation to help those in need, or he might be doing it out of sheer spite against the local law enforcement. The particular motivations of an NPC will suggest what sort of things he or she is willing to do in the line of duty.

The quirks table provide a score of minor traits that might help the PCs remember the NPC. It's best to play up the trait during their first meeting, so as to better impress on the players some quality that will help the NPC stick in their recollections.

Problems and quirks are optional, and you might not bother with them for exceptionally minor characters that you don't expect to ever see use again.

1d4	GENDER
1-2	Male
3-4	Female

1d6	AGE
1-2	Young
3-4	Middle-aged
5-6	Old

1d8	HEIGHT
1	Very Short
2-3	Short
4-5	Average height
6-7	Tall
8	Very Tall

1d10	PROBLEMS
1	Grudge against local authorities.
2	Has a secret kept from their family.
3	Chronic illness
4	Enmity of a local psychic
5	Has enemies at work
6	Owes loan sharks
7	Threatened with loss of spouse, sibling, or child
8	Close relative in trouble with the law
9	Drug or behavioral addict
10	Blackmailed by enemy

1d12	JOB MOTIVATION
1	Greed, because nothing else they can do pays better
2	Idealistic about the job
3	Sense of social duty
4	Force of habit takes them through the day
5	Seeks to please another
6	Feels inadequate as anything else
7	Family tradition
8	Religious obligation or vow
9	Nothing better to do, and they need the money
10	They're quitting at the first good opportunity
11	It's a stepping stone to better things
12	Spite against an enemy discomfited by the work

1d20	NOTICEABLE QUIRKS
1	Bald
2	Terrible taste in clothing
3	Very thin
4	Powerful build
5	Bad eyesight, wears spectacles
6	Carries work tools constantly
7	Long hair
8	Bearded, if male. Ankle-length hair if female.
9	Scars all over hands
10	Missing digits or an ear
11	Smells like their work
12	Repeats himself constantly
13	Talks about tabloid articles
14	Booming voice
15	Vocal dislike of offworlders
16	Always snuffling
17	Missing teeth
18	Fastidiously neat
19	Wears religious emblems
20	Speaks as little as possible

Quick NPC Statistics

Occasionally a GM needs an adversary's statistics on short notice. The Xenobestiary chapter has a wide selection of alien beasts and human freebooters from which to pick, but there are times when a rival adventurer or some exceptionally talented villain is necessary, one that deserves more attention than a generic opponent might merit.

Below are condensed stat blocks for NPC experts, psychics, and warriors from levels 1-10. The stat blocks contain hit points, armor class, attack bonus, default weaponry and armor, any skills the NPC might possess, and a recap of their saving throw values. The statblocks assume that the NPCs have a reasonable amount of access to high-tech equipment, and that highly experienced NPCs

will have managed to lay hands on tech level 5 gear at some point during their careers. All modifiers for attributes and skills have been factored into the stat block.

To customize an NPC, you can simply swap any class skill listed for any other class skill. If a non-class skill is desired, you can drop an existing skill to take it at a level one lower than the skill sacrificed. Equipment can be adjusted as necessary, and you might choose to randomly roll their attributes if the default selection seems a little bland.

EXPERTS						
LEVEL	HP	AC	AB	WEAPON/ARMOR	NEW SKILLS	SAVES
1	4	7	+0	Semi-auto pistol (1d6+1)/Undersuit		PE 16/ME 15/Ev 12/ Tech 11/Luck 14
	Total Skills: Focused Skill-1, Support Skill-1, Support Skill-0 * 3, Combat/Projectile-0					
2	8	7	+0	Semi-auto pistol (1d6+1)/Undersuit	+ Support Skill-1	PE 16/ME 15/Ev 12/ Tech 11/Luck 14
	Total Skills: Focused Skill-1, Support Skill-1, Support Skill-0 * 3, Combat/Projectile-0					
3	12	5	+1	Laser Pistol (1d6)/Woven	+ Combat/Energy-0	PE 16/ME 15/Ev 12/ Tech 11/Luck 14
	Total Skills: Focused Skill-1, Support Skill-1 * 2, Support Skill-0 * 2, Combat/Projectile-0, Combat/Energy-0					
4	16	5	+1	Laser Pistol (1d6)/Woven	+ Focused Skill-2	PE 16/ME 15/Ev 12/ Tech 11/Luck 14
	Total Skills: Focused Skill-2, Support Skill-1 * 2, Support Skill-0 * 2, Combat/Projectile-0, Combat/Energy-0					
5	20	4	+3	Laser Pistol (1d6)/CFU	+ Focused Skill-3	PE 14/ME 13/Ev 10/ Tech 9/Luck 12
	Total Skills: Focused Skill-3, Support Skill-1 * 2, Support Skill-0 * 2, Combat/Projectile-0, Combat/Energy-0					
6	24	4	+3	Laser Pistol (1d6)/CFU	+ Support Skill-1 * 2	PE 14/ME 13/Ev 10/ Tech 9/Luck 12
	Total Skills: Focused Skill-3, Support Skill-1 * 4, Combat/Projectile-0, Combat/Energy-0					
7	28	4	+4	Thermal Pistol (2d6)/CFU	+ Combat/Energy-1	PE 14/ME 13/Ev 10/ Tech 9/Luck 12
	Total Skills: Focused Skill-3, Support Skill-1 * 4, Combat/Projectile-0, Combat/Energy-1					
8	32	4	+4	Thermal Pistol (2d6)/CFU	+ Support Skill-2	PE 14/ME 13/Ev 10/ Tech 9/Luck 12
	Total Skills: Focused Skill-3, Support Skill-2, Support Skill-1 * 3, Combat/Projectile-0, Combat/Energy-1					
9	36	2	+6	Thermal Pistol (2d6)/Deflector	+ Support Skill-1	PE 12/ME 11/Ev 8/ Tech 7/Luck 10
	Total Skills: Focused Skill-3, Support Skill-2, Support Skill-1 * 4, Combat/Projectile-0, Combat/Energy-1					
10	40	2	+6	Shear Rifle (2d8)/Deflector	+ Focused Skill-4	PE 12/ME 11/Ev 8/ Tech 7/Luck 10
	Total Skills: Focused Skill-4, Support Skill-2, Support Skill-1 * 4, Combat/Projectile-0, Combat/Energy-1					

An NPC expert's default attributes are Strength 7 (-1), Intelligence 14 (+1), Wisdom 10 (+0), Dexterity 9 (+0), Constitution 11 (+0), and Charisma 14 (+1). Expert NPCs start with a Focused Skill-1, a Support Skill-1, four Support Skills-0, and Combat/Projectile-0. The Focused Skill should be replaced by whatever main skill the expert is focused in- Navigation for a navigator, for example, or Tech/Pretech for a scientist. The support skills should be replaced by other useful skills for the expert's role. Remember that Tech/Psitech, Tactics and Combat skills are not class skills for an expert.

PSYCHICS						
LEVEL	HP	AC	AB	WEAPON/ARMOR	NEW SKILLS	SAVES
1	3	7	-2	Semi-auto pistol (1d6+1)/Undersuit		PE 13/ME 12/Ev 15/Tech 16/Luck 14
	Disciplines: Telepathy 1, Biopsionics 1. 2 Psi Power.					
2	6	7	-2	Semi-auto pistol (1d6+1)/Undersuit		PE 13/ME 12/Ev 15/Tech 16/Luck 14
	Disciplines: Telepathy 2, Biopsionics 2. 6 Psi Power.					
3	9	5	+2	Laser Pistol (1d6)/Woven	+ Combat/Energy-1	PE 13/ME 12/Ev 15/Tech 16/Luck 14
	Disciplines: Telepathy 3 (level 1 mastered), Biopsionics 2 (level 1 mastered), Precognition 1. 10 Psi Power.					
4	12	5	+2	Laser Pistol (1d6)/Woven	+ History-0	PE 13/ME 12/Ev 15/Tech 16/Luck 14
	Disciplines: Telepathy 4 (level 1-2 mastered), Biopsionics 2 (level 1 mastered), Precognition 2. 15 Psi Power.					
5	15	4	+3	Laser Pistol (1d6)/CFU	+ Combat/Energy -2	PE 13/ME 12/Ev 15/Tech 16/Luck 14
	Disciplines: Telepathy 5 (level 1-2 mastered), Biopsionics 3 (level 1-2 mastered), Precognition 2. 22 Psi Power.					
6	18	4	+5	Laser Pistol (1d6)/CFU	+ Tech/Psitech-1	PE 11/ME 10/Ev 13/Tech 14/Luck 12
	Disciplines: Telepathy 6 (level 1-3 mastered), Biopsionics 3 (level 1-2 mastered), Precognition 3. 29 Psi Power.					
7	21	4	+5	Thermal Pistol (2d6)/CFU		PE 11/ME 10/Ev 13/Tech 14/Luck 12
	Disciplines: Telepathy 7 (level 1-3 mastered), Biopsionics 3 (level 1-2 mastered), Precognition 4. 43 Psi Power.					
8	24	4	+6	Thermal Pistol (2d6)/CFU	+ Combat/Energy-3	PE 11/ME 10/Ev 13/Tech 14/Luck 12
	Disciplines: Telepathy 8 (level 1-4 mastered), Biopsionics 4 (level 1-2 mastered), Precognition 4. 52 Psi Power.					
9	27	2	+6	Thermal Pistol (2d6)/Deflector	+ History-1	PE 11/ME 10/Ev 13/Tech 14/Luck 12
	Disciplines: Telepathy 9 (level 1-4 mastered), Biopsionics 4 (level 1-3 mastered), Precognition 5. 65 Psi Power.					
10	30	2	+6	Shear Rifle (2d8)/Deflector	+ Tech/Medical-1	PE 11/ME 10/Ev 13/Tech 14/Luck 12
	Disciplines: Telepathy 9 (level 1-5 mastered), Biopsionics 5 (level 1-4 mastered), Precognition 6. 70 Psi Power.					
An NPC psychic's default attributes are Strength 7 (-1), Intelligence 10 (+0), Wisdom 14 (+1), Dexterity 9 (+0), Constitution 14 (+1), and Charisma 11 (+0). Psychic NPCs start with Tech/Psitech-0, Tech/Medical-0, Combat/Energy-0, and Perception-0. Skill and attribute modifiers are factored into the scores above.						

WARRIORS						
LEVEL	HP	AC	AB	WEAPON/ARMOR	NEW SKILLS	SAVES
1	5	4	+3	Semi-auto pistol (1d8)/Woven		PE 12/ME 15/Ev 14/Tech 16/Luck 13
2	10	4	+3	Semi-auto pistol (1d8)/Woven	+ Combat/Primitive-0	PE 12/ME 15/Ev 14/Tech 16/Luck 13
3	15	3	+4	Combat Rifle (1d12)/CFU	+ Combat/Projectile-2	PE 12/ME 15/Ev 14/Tech 16/Luck 13
4	20	3	+6	Combat Rifle (1d12)/CFU	+ Leadership-0, Exosuit-0	PE 10/ME 13/Ev 12/Tech 14/Luck 11
5	25	3	+6	Combat Rifle (1d12)/CFU		PE 12/ME 15/Ev 14/Tech 16/Luck 13
6	30	1	+7	Combat Rifle (1d12)/Assault	+ Combat/Projectile-3	PE 12/ME 15/Ev 14/Tech 16/Luck 13
7	35	1	+9	Mag Rifle (2d8+2)/Assault	+ Tactics-1	PE 8/ME 11/Ev 10/Tech 12/Luck 9
8	40	1	+9	Mag Rifle (2d8+2)/Assault	+ Combat/Unarmed-0	PE 8/ME 11/Ev 10/Tech 12/Luck 9
9	45	-1	+10	Mag Rifle (2d8+2)/FEP		PE 8/ME 11/Ev 10/Tech 12/Luck 9
10	50	-1	+11	Spike Thrower (3d8)/FEP	+ Combat/Projectile-4	PE 6/ME 9/Ev 8/Tech 10/Luck 7
An NPC warrior's default attributes are Strength 14 (+1), Intelligence 10 (+0), Wisdom 7 (-1), Dexterity 14 (+1), Constitution 10 (+0), and Charisma 11 (+0). Warrior NPCs start with Combat/Projectile-1, Athletics-1, Tactics-0, and Perception-0. Skill and attribute modifiers are factored into the scores above.						

Quick Corporation Creation

Need a villainous megacorp or patron institution on short notice? You can use the tables on this page to conjure up a corporation's name and major fields of business. If you'd prefer to have a corporation named after an owner or founder, you can use the culture pages elsewhere in this chapter to generate a suitable random name, and then attach an organization name from the table below.

Once you have the name in hand, you can roll one or more times on the business table to see where their major fields of interest lie. Not all of the entries will necessarily make sense on all worlds; a corporation devoted to fishing on a desert planet may not be all that rational. Still, you might use unusual fields of interest to spark your creativity. Perhaps the "fish" in question are a species of sand-burrowing xenolife that can be caught and harvested for their valuable biochemical extracts. The reputation and rumors table can add additional color. Other entries in the business table refer to activities that are probably illegal in just about any star system, such as piracy or maltech. In these cases, the business probably has some other focus as a front for their real activities, and only trusted agents and expendable catspaws are ever involved in the real business of the organization.

1d100	NAME	ORGANIZATION
1-4	Ad Astra	Alliance
5-8	Colonial	Association
9-12	Compass	Band
13-16	Daybreak	Circle
17-20	Frontier	Clan
21-24	Guo Yin	Combine
25-28	Highbeam	Company
29-32	Imani	Cooperative
33-36	Magnus	Corporation
37-40	Meteor	Enterprises
41-44	Neogen	Faction
45-48	New Dawn	Group
49-52	Omnitech	Megacorp
53-56	Outertech	Multistellar
57-60	Overwatch	Organization
61-64	Panstellar	Outfit
65-68	Shogun	Pact
69-72	Silverlight	Partnership
73-76	Spiker	Ring
77-80	Stella	Society
81-84	Striker	Sodality
85-88	Sunbeam	Syndicate
89-92	Terra Prime	Union
93-96	Wayfarer	Unity
97-100	West Wind	Zaibatsu

1d100	BUSINESS	1d100	BUSINESS
1-2	Aeronautics	51-52	Journalism
3-4	Agriculture	53-54	Law Enforcement
5-6	Art	55-56	Liquor
7-8	Assassination	57-58	Livestock
9-10	Asteroid Mining	59-60	Maltech
11-12	Astrotech	61-62	Mercenary Work
13-14	Biotech	63-64	Metallurgy
15-16	Bootlegging	65-66	Pharmaceuticals
17-18	Computer Hardware	67-68	Piracy
19-20	Construction	69-70	Planetary Mining
21-22	Cybernetics	71-72	Plastics
23-24	Electronics	73-74	Pretech
25-26	Energy Weapons	75-76	Prisons
27-28	Entertainment	77-78	Programming
29-30	Espionage	79-80	Projectile Guns
31-32	Exploration	81-82	Prostitution
33-34	Fishing	83-84	Psionics
35-36	Fuel Refining	85-86	Psitech
37-38	Gambling	87-88	Robotics
39-40	Gemstones	89-90	Security
41-42	Gengineering	91-92	Shipyards
43-44	Grav Vehicles	93-94	Snacks
45-46	Heavy Weapons	95-96	Telcoms
47-48	Ideology	97-98	Transport
49-50	Illicit Drugs	99-100	Xenotech

1d100	REPUTATION AND RUMORS
1-5	Reckless with the lives of their employees
6-10	Have a dark secret about their board of directors
11-15	Notoriously xenophobic towards aliens
16-20	Lost much money to an embezzler who evaded arrest
21-26	Reliable and trustworthy goods
27-31	Stole a lot of R&D from a rival corporation
32-37	They have high-level political connections
38-43	Rumored cover-up of a massive industrial accident
44-49	Stodgy and very conservative in their business plans
50-54	The company's owner is dangerously insane
55-59	Rumored ties to a eugenics cult
60-64	Said to have a cache of pretech equipment
65-69	Possibly teetering on the edge of bankruptcy
70-74	Front for a planetary government's espionage arm
75-79	Secretly run by a psychic cabal
80-84	Secretly run by hostile aliens
85-89	Secretly run by an unbraked AI
90-94	They've turned over a new leaf with the new CEO
95-99	Deeply entangled with the planetary underworld

Quick Religion

Occasionally the details of a world's religion are necessary. To get the outline of a faith, roll once on the leadership table below, once on the origin tradition, and one or more times on the evolution table to find out the way in which it differs from its parent tradition.

Modern religions have changed substantially in the thousand years since humanity left Earth, and almost every variation of human belief possible has found adherents on some world. You shouldn't worry overmuch about getting a faith's theological details "right" so long as you give the players enough of a sign that you're not attempting to make some pungent social commentary with a version of the Roman Catholic Church led by a council of holy women and served by clergy that seeks to preach Christ as the revealer of Buddha's truth. Faiths have appeared not only around God, but also around human beliefs. Ideologies such as communism, environmentalism, free-market capitalism, and almost any belief which can be interpreted to order a human life have established living faiths on several worlds.

Religious Titles of Many Faiths

Paganism: Druid, Witch, Priest, Shaman, Pontifex, Flamen, Vestal, Teacher, Gothi, Entu, Presbyteros

Catholicism: Pope, Cardinal Archbishop, Bishop, Priest, Deacon, Abbot/Abbess, Monk, Nun

Eastern Orthodoxy: Patriarch, Metropolitan, Archbishop, Bishop, Archimandrite, Archpriest, Priest, Deacon, Monk, Nun

Protestantism: Archbishop, Bishop, Pastor, Preacher, Reverend, Elder, Priest, Minister

Buddhism: Rinpoche, Lama, Bhikku/Bhikkuni

Judaism: Rabbi, Cantor, Rebbe

Islam: Imam, Mufti, Qadi, Sheikh, Mullah, Ayatollah, Caliph, Amir, Sayid

Taoism: Master, Monk, Nun, Sage

Hinduism: Guru, Satguru, Mahatama, Maharishi, Swami, Yogi/Yogini

Ideology: Chairman, Dear Leader, Commissar, Professor, Teacher, President, Cadre

1d8	EVOLUTION
1	<i>New holy book.</i> Someone in the faith's past penned or discovered a text that is now taken to be holy writ and the expressed will of the divine.
2	<i>New prophet.</i> This faith reveres the words and example of a relatively recent prophet, esteeming him or her as the final word on the will of God. The prophet may or may not still be living.
3	<i>Syncretism.</i> The faith has merged many of its beliefs with another religion. Roll again on the origin tradition table; this faith has reconciled the major elements of both beliefs into its tradition.
4	<i>Neofundamentalism.</i> The faith is fiercely resistant to perceived innovations and deviations from their beliefs. Even extremely onerous traditions and restrictions will be observed to the letter.
5	<i>Quietism.</i> The faith shuns the outside world and involvement with the affairs of nonbelievers. They prefer to keep to their own kind and avoid positions of wealth and power.
6	<i>Sacrifices.</i> The faith finds it necessary to make substantial sacrifices to please God. Some faiths may go so far as to offer human sacrifices, while others insist on huge tithes offered to the building of religious edifices.
7	<i>Schism.</i> The faith's beliefs are actually almost identical to those of the majority of its origin tradition, save for a few minor points of vital interest to theologians and no practical difference whatsoever to believers. This does not prevent a burning resentment towards the parent faith.
8	<i>Holy family.</i> God's favor has been shown especially to members of a particular lineage. It may be that only men and women of this bloodline are permitted to become clergy, or they may serve as helpless figureheads for the real leaders of the faith.

1d6	LEADERSHIP
1-2	<i>Patriarch/Matriarch.</i> A single leader determines doctrine for the entire religion, possibly in consultation with other clerics.
3-4	<i>Council.</i> A group of the oldest and most revered clergy determine the course of the faith.
5	<i>Democracy.</i> Every member has an equal voice in matters of faith, with doctrine usually decided at regular church-wide councils.
6	<i>No universal leadership.</i> Roll again to determine how each region governs itself. If another 6 is rolled, this faith has no hierarchy.

1d12	ORIGIN TRADITION
1	Paganism
2	Roman Catholicism
3	Eastern Orthodox Christianity
4	Protestant Christianity
5	Buddhism
6	Judaism
7	Islam
8	Taoism
9	Hinduism
10	Zoroastrianism
11	Confucianism
12	Ideology

Quick Heresies

Establishing a religion is well and good, but occasionally a GM needs a heretical sect for an adventure. The tables below allow for the quick creation of a sect that disagrees with its parent religion on a few important points. GMs should roll on the tables below as they wish, or select those items most useful to their purposes.

1d8	FOUNDER
1	<i>Defrocked clergy</i> : founded by a cleric outcast from the faith.
2	<i>Frustrated layman</i> : founded by a layman frustrated with the faith's decadence, rigidity, or lack of authenticity
3	<i>Renegade prophet</i> : founded by a revered holy figure who broke with the faith
4	<i>High prelate</i> : founded by an important and powerful cleric to convey his or her beliefs
5	<i>Dissatisfied minor clergy</i> : founded by a minor cleric frustrated with the faith's current condition
6	<i>Outsider</i> : founded by a member of another faith deeply influenced by the parent religion
7	<i>Academic</i> : founded by a professor or theologian on intellectual grounds
8	Accidental; the founder never meant their works to be taken that way.

1d12	MAJOR HERESY
1	<i>Manichaeism</i> : the sect believes in harsh austerities and rejection of matter as something profane and evil
2	<i>Donatism</i> : the sect believes that clergy must be personally pure and holy in order to be legitimate
3	<i>Supercessionism</i> : the sect believes the founder or some other source supercedes former scripture or tradition
4	<i>Antinomianism</i> : the sect believes that their holy persons are above any law and may do as they will
5	<i>Universal priesthood</i> : the sect believes that there is no distinction between clergy and layman and that all functions of the faith may be performed by all members
6	<i>Conciliarism</i> : the sect believes that the consensus of believers may correct or command even the clerical leadership of the faith
7	<i>Ethnocentrism</i> : the sect believes that only a particular ethnicity or nationality can truly belong to the faith
8	<i>Separatism</i> : the sect believes members should shun involvement with the secular world
9	<i>Stringency</i> : the sect believes that even minor sins should be punished, and major sins should be capital crimes
10	<i>Syncretism</i> : the sect has added elements of another native faith to their beliefs
11	<i>Primitivism</i> : the sect tries to recreate what they imagine was the original community of faith
12	<i>Conversion by the sword</i> : unbelievers must be brought to obedience to the sect or be granted death

1d10	ATTITUDE TOWARDS ORTHODOXY
1	<i>Filial</i> : the sect honors and respects the orthodox faith, but feels it is substantially in error
2	<i>Anathematic</i> : the orthodox are spiritually worse than infidels, and their ways must be avoided at all costs
3	<i>Evangelical</i> : the sect feels compelled to teach the orthodox the better truth of their ways
4	<i>Contemptuous</i> : the orthodox are spiritually lost and ignoble
5	<i>Aversion</i> : the sect wishes to shun and avoid the orthodox
6	<i>Hatred</i> : the sect wishes the death or conversion of the orthodox
7	<i>Indifference</i> : the sect has no particular animus or love for the orthodox
8	<i>Obedience</i> : the sect feels obligated to obey the orthodox hierarchy in all matters not related to their specific faith
9	<i>Legitimist</i> : the sect views itself as the "true" orthodox faith and the present orthodox hierarchy as pretenders to their office
10	<i>Purificationist</i> : the sect's austerities, sufferings, and asceticisms are necessary to purify the orthodox

1d20	QUIRK
1	Clergy of only one gender
2	Dietary prohibitions
3	Characteristic item of clothing or jewelry
4	Public prayer at set times or places
5	Forbidden to do something commonly done
6	Anti-intellectual, deploring secular learning
7	Mystical, seeking union with God through meditation
8	Lives in visibly distinct houses or districts
9	Has a language specific to the sect
10	Greatly respects learning and education
11	Favors specific colors or symbols
12	Has unique purification rituals
13	Always armed
14	Forbids marriage or romance outside the sect
15	Will not eat with people outside the sect
16	Must donate labor or tithe money to the sect
17	Special friendliness toward another faith or ethnicity
18	Favors certain professions for their membership
19	Vigorous charity work among unbelievers
20	Forbidden the use of certain technology

Quick Political Parties

Peasant revolts, proletariat revolutions, slave rebellions, and titanic popular movements are useful elements for more politically unstable worlds, but it can sometimes be difficult to decide on the specifics of a movement. While it's easy enough to understand why people would rebel against tyranny or oppression, most such movements have a rationale deeper than simple revulsion against the existing order.

1D8 GROUP LEADERSHIP	
1	<i>Social elite</i> : the group is led by members of the planet's ruling class.
2	<i>Outcasts</i> : the group's leadership is filled out by members of a taboo, outcast, or otherwise socially marginal group.
3	<i>Bourgeoisie</i> : the group is driven by a leadership drawn from the middle class and those aspiring to join the elite.
4	<i>Proletariat</i> : the working class, both agricultural and industrial, provides the leadership for this group.
5	<i>Urban</i> : city-dwellers compose the leadership of the group.
6	<i>Rural</i> : farmers, herdsman, small-town artisans, and other residents of the rural zones of a planet make up the leadership of the group.
7	<i>Pious</i> : clergy and devout laymen of a religion form the leadership.
8	<i>Intellectuals</i> : the movement is led by intellectuals.

1D6 ECONOMIC POLICY	
1	<i>Laissez-faire</i> : minimal or no government intervention in the market.
2	<i>State industry</i> : the government should own or support specific industries important to the group
3	<i>Protectionist</i> : the government should tax imports that threaten to displace the products of local manufactures
4	<i>Autarky</i> : the government should ensure that the world can provide all of its own goods and services and forbid the import of foreign goods
5	<i>Socialist</i> : the market should be harnessed to ensure a state-determined minimal standard of living for all.
6	<i>Communist</i> : the state should control the economy, disbursing its products according to need and determined efficiency

1D4 RELATIONSHIP TOWARD OUTSIDERS	
1	<i>Xenophilia</i> : the more immigrants the better, as they provide valuable labor and skills
2	<i>Xenophobic</i> : immigration is to be restricted to protect native jobs and culture
3-4	<i>Provisional</i> : some immigrants are to be encouraged, others to be forbidden. Which is which depends on the interests of the group.

In many cases, a movement might lack the convenient touchstone of despotism to motivate it. Terrorist groups, fringe political groups, violent separatists, and all the other riotous fauna of human political history can be found recapitulated on far worlds. There is no human political structure that has not been attempted somewhere within human space, and there is no model so ludicrous or discredited that some number of humans are not willing to fight and die to install it. Not all such groups need to be violent or rebellious, of course. The tables below can be used to get a rough idea of the political platform of a perfectly respectable faction.

1D12 IMPORTANT ISSUES	
1	Poverty among the group's membership
2	Social hostility to the group's membership
3	Immigration and immigrants
4	The membership's important industries
5	Religion in public life
6	Gender roles and sexual mores
7	Culture of the group membership
8	Military preparedness
9	Governmental reform
10	Secession
11	Foreign relations
12	Wealth redistribution

1D20	NAME ELEMENT	NAME ELEMENT
1	People's	Front
2	Freedom	Party
3	National	Faction
4	Unified	Group
5	Democratic	Element
6	Royal	Consensus
7	Social	Council
8	Progressive	Banner
9	Popular	Union
10	Republican	Combine
11	(A color)	Society
12	Federal	Sodality
13	Liberty	Brotherhood
14	(A local animal)	Commune
15	Homeland	Pact
16	Conservative	Foundation
17	(A direction)	Fellowship
18	Liberal	Guild
19	Victory	Federation
20	(A metal)	Alliance

Quick Architecture

Sometimes it can be difficult to get a feel for the architecture of a particular alien species or human culture. While it's always possible to simply use a stylized, "futuristic" style of construction or to just transplant modern styles to the future, this can occasionally be less than satisfying. Used too often, it can make alien ruins and living human cities feel somewhat interchangeable.

One option is to use the tables below to pick out a half-dozen architectural elements that are characteristic to an alien race or to a particular human world's culture. This can be particularly useful when you plan to use a specific alien race on multiple worlds or for multiple ruins; spotting characteristic architectural styles can give players a hint as to which race authored a particular structure.

Some of the items below are architectural terms of art. A quick internet search for images can usually give a good idea as to what sort of structure an "inflexed arch" might be.

1d6	1d10	ARCHITECTURAL ELEMENT
1	1	Sharply pointed towers
	2	Squat towers
	3	Square, hexagonal, or oval towers
	4	Multi-branching towers
	5	Inverted towers, stretching underground
	6	Bulbous towers
	7	Flat-topped towers
	8	Multiple towers that merge into one
	9	Skeletal towers
	10	Twisted towers
2	1	Square foundations
	2	Hexagonal foundations
	3	Circular foundations
	4	Raised foundations
	5	Pillared foundations
	6	Sloped foundations
	7	Entrenched foundations
	8	Elongated rectangular foundations
	9	Triangular foundations
	10	Oval foundations
3	1	Bas-reliefs on walls
	2	Painting on walls
	3	Mosaics on walls or floors
	4	Statues inset in wall niches
	5	Tiling on surfaces
	6	Carvings on walls
	7	Moldings on walls
	8	Paneling on walls
	9	Geometric designs on surfaces
	10	Featureless surfaces

1d6	1d10	ARCHITECTURAL ELEMENT
4	1	Flying buttresses
	2	Smooth pillars
	3	Adorned pillars
	4	Raised embankments
	5	Pier buttresses
	6	Scroll buttresses
	7	False, decorative buttresses
	8	Pyramidal support piers
	9	Squared support piers
	10	Seeming lack of supports or buttresses
5	1	Round arches
	2	Lancet arches
	3	Oriental arches
	4	Horseshoe arches
	5	Multifoil arches
	6	Monumental arches
	7	Keyhole arches
	8	Inflexed arches
	9	Flat arches
	10	Corbelled arches
6	1	Canals and pools
	2	Balconies and overlooks
	3	Subterranean structures
	4	Absence or profusion of windows
	5	Walled or enclosed courtyards
	6	Open plazas
	7	Elevated walkways
	8	Monoliths or standing stones
	9	Meandering pathways
	10	Climbing vegetation

Quick Room Dressing

Short of ideas for how to fill out an alien ruin, abandoned compound, or forgotten pretech installation? Try picking from the table below to flesh out the rooms or areas of a structure. It can often be useful to roll for one room and then assign nearby locales the sort of function they'd serve to support that area.

For example, if the random roll is “Medical clinic”, then you might consider reasons why the structure has a medical clinic if the answer isn't obvious. Nearby rooms would likely be sickrooms, perhaps with a quarantine room for contagious cases or an office for the medtechs. In this way, a beginning random seed can be grown out into a substantial part of the structure. or lead to further hooks about how the place operates or operated in its heyday.

1d100	ROOM AND FEATURES
1-2	Armory: locked gun cabinets, armor racks
3-4	Art studio: half-finished pieces, tools
5-6	Balcony: flowers, climbing vines
7-8	Ballroom: musical instruments, decorations
9-10	Barracks: footlockers, stacked bunks
11-12	Bath chamber: large bathing pool, steam rooms
13-14	Bedroom: locked cabinets, personal mementos
15-16	Biotech lab: unfinished experiments, toxins
17-18	Broadcasting stage: holocams, props
19-20	Cellar: mold, dampness, spiderwebs on shelves
21-22	Cold storage: haunches of alien meat
23-24	Computer room: flickering servers, vent fans
25-26	Council chamber: large table, mapboard, records
27-28	Crypt: sarcophagi, bones, grave goods
29-30	Dining room: long tables, epergnes, portraits
31-32	Dormitory: bunks, dividers, common baths
33-34	Engineering workshop: parts, electricity, scrap
35-36	Game room: Table games, nets, flashing baubles
37-38	Garden: benches, fountains, exotic foliage
39-40	Great hall: large hearth, tables, raised dais
41-42	Greenhouse: vegetables, irrigation systems, insects
43-44	Icon room: religious paintings, statues, kneelers
45-46	Kenel: stink, fur, bones, feeding bowls
47-48	Kitchen: boiling pots, ovens, numerous knives
49-50	Lavatory: sonic showers, nonhuman facilities

1d100	ROOM AND FEATURES
51-52	Lecture hall: podium, seats, holoboard
53-54	Library: scrolls, dataslabs, codices, massive folios
55-56	Lumber room: spare furniture, dropcloths, dust
57-58	Maintenance closet: mops, cleaning solvents, sinks
59-60	Medical clinic: empty sprayhypos, antiseptic smell
61-62	Monitoring center: banks of screens, darkness
63-64	Mortuary: embalming tools, canopic jars
65-66	Museum: display cases, plaques, audio explanations
67-68	Nursery: toys, brightly-painted walls, cribs
69-70	Operating theater: overhead lights, tables, scalpels
71-72	Pantry: dusty cannisters, sacks of grain
73-74	Prayer room: icons, kneelers, washbasins
75-76	Prison cell: mold, vermin, peeling paint
77-78	Quarantine room: cot, bedpan, handwritten will
79-80	Solarium: transparent aluminum ceiling, plants
81-82	Sparring room: floor mats, practice weapons
83-84	Storeroom: crates, bales, cabinets, chests
85-86	Theater: costumes, stage, secret machinery
87-88	Torture chamber: straps, chemicals, recording gear
89-90	Trophy room: xenolife body parts, plaques, chairs
91-92	Unfinished room: bare wiring, stacked paneling
93-94	Vault: Cameras, thick doors, timed locks
95-96	Vestibule: coat racks, shoe rests, matting
97-98	Wardrobe: out-of-date clothing, mirrors, shoes
99-100	Wellhouse: water filters, tanks, heaters

Sample Starships

The ship design rules given in the equipment chapter are intended to allow for a little personal creativity in putting together a ship, and accomodate the need for specially-designed craft intended for particular needs. An adventuring party bent on voyaging into the unknown black needs different functionality from their free trader than that required by some sleepy merchant running trinkets along an established trade route.

A GM occasionally finds it necessary to have a ready-made spaceship for an adventure or a situation, however, and so the following sample ships are provided for your use. All statistics given assume normal NPC skills and competence for the type of ship in question, and defenses and life support fittings are accounted in the statistics given.

FIGHTER			Power: 5/1 free		Mass: 2/0 free						
Cost:	305,000	Hit Points:	8	Crew:	1/1	Speed:	5	Armor:	5	AC:	4
Weaponry	Reaper Battery (+3 to hit/3d4+1, Clumsy)										
Defenses	None										
Fittings	Spike Drive-1, Atmospheric Configuration										
Fighters are specialized military tools, trading versatility and endurance for speed and heavy armor. Few fighters are found outside of formal space navies, as most poor colonies and hardscrabble worlds find more general use in shuttles or free traders.											

SHUTTLE			<i>Power:</i> 3/2 free		<i>Mass:</i> 5/0 free	
<i>Cost:</i> 210,000	<i>Hit Points:</i> 15	<i>Crew:</i> 1/20	<i>Speed:</i> 3	<i>Armor:</i> 0	<i>AC:</i> 9	
<i>Weaponry</i> None						
<i>Defenses</i> None						
<i>Fittings</i> Spike Drive-1, Atmospheric Configuration, Extended Life Support, 6 tons of cargo space						
Shuttles are the workhorses of most colonial worlds, moving people and equipment where they need to go. In dangerous areas, many owners strip out 2 tons of cargo space and the extended life support, reducing the crew capacity to 10 maximum, and adding in a Sandthrower battery (+1 to hit/2d4, Flak). Such modifications give a shuttle a cost of 255,000 credits and no free power or space.						

FREE MERCHANT			Power: 10/0 free		Mass: 15/0 free						
Cost:	775,000	Hit Points:	20	Crew:	1/6	Speed:	3	Armor:	2	AC:	6
Weaponry	Multifocal Laser (+1 to hit/1d4, AP 20), Sandthrower (+1 to hit/2d4, Flak)										
Defenses	None										
Fittings	Spike Drive-1, Atmospheric Configuration, Fuel scoops, Fuel bunker, 100 tons of cargo space										
Free merchants are built for versatility and cargo capacity on a basic frigate hull. While they lack the armor of their military brethren, they have significant free space for owner modifications or larger cargo holds. This particular configuration represents a merchantman with teeth, equipped to ply the more dangerous trade routes. The weaponry gives it a chance to fight its way through an ambush, while the fuel bunkers allow for a fast turnaround drill out of a system if it turns out that the locals aren't feeling welcoming.											

PATROL BOAT			Power: 10/1 free		Mass: 10/0 free						
Cost:	3,515,000	Hit Points:	25	Crew:	5/20	Speed:	4	Armor:	5	AC:	6
Weaponry	Plasma Beam (+3/3d6+1, AP 10)										
Defenses	None										
Fittings	Spike Drive-2, Atmospheric Configuration, Extended Stores, Boarding Tubes, Armory, Ship's Locker, Survey Scanners										
An uncompromising pocket warship, the patrol boat is a class of ship often found defending the planets of minor stellar powers and doing customs duty in more populous systems. The extended stores allow the ship to operate for up to a month with maximum crew, and the spike drive allows it to run down most interlopers before they can get too far in-system.											

FRIGATE	<i>Power:</i> 10/1 free	<i>Mass:</i> 10/0 free
Cost: 6,315,000 Hit Points: 40 Crew: 10/40 Speed: 2 Armor: 10 AC: 7 Weaponry 2 Plasma Beams (+3 to hit/3d6+1, AP 10), Flak Emitter Battery (+3 to hit/2d6, AP 10, Flak) Defenses Hardened Polyceramic Overlay Fittings Spike Drive-1, Cargo Lighter, Extended Stores, Boarding Tubes, Armory, Ship's Locker Namesake of its class, the standard postech frigate is the backbone of the stellar navies of most minor powers. It doesn't have the long legs or speed of a patrol boat, but its weaponry is heavy enough to render most lesser ships into molten scrap.		
BULK FREIGHTER	<i>Power:</i> 10/2 free	<i>Mass:</i> 25/0 free
Cost: 6,087,500 Hit Points: 40 Crew: 10/40 Speed: 0 Armor: 0 AC: 9 Weaponry Plasma Beam (+1 to hit/3d6, AP 10) Defenses None Fittings Spike Drive-2, Cargo Lighter, Fuel Bunkers, Ship's Locker, 3400 tons of cargo space Most bulk freighters are battered relics of the Second Wave of colonization, antique cruiser hulls gutted and fitted out for long-distance cargo hauling. Not many trade routes support enough commerce to justify their huge cargo bays, but many still retain their old plasma beam weaponry to discourage pirates.		
CRUISER	<i>Power:</i> 50/1 free	<i>Mass:</i> 30/0 free
Cost: 17,287,500 Hit Points: 60 Crew: 50/400 Speed: 1 Armor: 15 AC: 6 Weaponry Gravcannon (+3 to hit/4d6+1, AP 20), Smart Cloud (+3 to hit/3d10, Cloud, Clumsy) 2 Multifocal Lasers (+3 to hit/1d4, AP 20) Defenses Hardened Polyceramic Overlay Fittings Spike Drive-3, Drop Pod, Armory, Ship's Locker, Boarding Tubes, Fuel Scoops, Advanced Nav Computer, Extended Life Support Cruisers are heavily armed ambassadors of goodwill for the more significant stellar empires, and usually the strongest ships that any planet in a sector can field. Their speed, range of operations, and enormous fighting stamina make them the ship of choice for clearing the skies of a target before a planetary invasion.		
BATTLESHIP	<i>Power:</i> 75/7 free	<i>Mass:</i> 50/0 free
Cost: 77,560,000 Hit Points: 120 Crew: 200/2,000 Speed: 0 Armor: 20 AC: 3 Weaponry Vortex Tunnel Inductor (+5 to hit/3d20+2, AP 20, Phase 1, Clumsy) Lightning Charge Mantle (+5 to hit/1d20+2, AP 5, Cloud), 2 Multifocal Lasers (+5 to hit/1d4+2, AP 20) Defenses Hardened Polyceramic Overlay, Ablative Hull Compartments Fittings Spike Drive-3, Drop Pod, Fuel Bunkers, Ship's Locker, Armory, Boarding Tubes, Fuel Scoops, Advanced Nav Computer, Extended Life Support, Ship Bay/Fighter w/Shuttle Only sector hegemony ever have the industrial and military strength to field a battleship, the queen of capital ships. Precious few cruisers can handle more than one hit from their main guns, and few smaller craft have the weaponry necessary to scratch a capital ship's hull. The presence of battleships in a sector changes the balance of power irrevocably as rivals are forced to field navies with the armor-piercing weaponry necessary to damage these massive hulks of war.		
CARRIER	<i>Power:</i> 50/5 free	<i>Mass:</i> 100/1 free
Cost: 126,875,000 Hit Points: 95 Crew: 300/3,000 Speed: 0 Armor: 10 AC: 6 Weaponry Gravcannon (+5 to hit/4d6+2, AP 20) Defenses Hardened Polyceramic Overlay, Ablative Hull Compartments Fittings Spike Drive-3, Drop Pod, Fuel Bunkers, Ship's Locker, Armory, Fuel Scoops, Advanced Nav Computer, Extended Life Support, Workshops, Lifeboats, 20 Ship Bay/Fighter w/Fighters, 5 Ship Bay/Frigate w/Frigates Carriers have an enormous throw weight of attack spacecraft, with their organic combat wing boasting more tonnage than most planetary navies. The speed and range of the carrier allow shorter-legged ships to be brought right to the action, and their integral workshops and fuel scoops allow for the repair and fueling of their wing. Given their usual complement of 1,000 crew and support staff, most carriers can stay out for as long as a month and a half before resupply becomes necessary.		

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SECTOR MAP

SECTOR NAME

MAJOR SECTOR POWERS

MAJOR ALIEN SPECIES

[illegible]

PLANETARY DIRECTORY

[illegible]

NAME _____

PLANET RECORD

ATMOSPHERE

TEMPERATURE

BIOSPHERE

POPULATION

TECH LEVEL

TAGS

CAPITAL AND GOVERNMENT

ENEMIES

CULTURAL NOTES

FRIENDS

COMPLICATIONS

ADVENTURES PREPARED

PLACES

PARTY ACTIVITIES ON THIS WORLD

THINGS

FACTION FILE

FACTION HISTORY AND PURPOSE

[illegible]

PARTY INVOLVEMENT WITH FACTION

[illegible]

ADVENTURE NAME _____

ADVENTURE FILE

LOCATION

EXPECTED LEVELS

DATE RUN

PARTICIPANTS

ADVENTURE OUTLINE

SUMMARY OF EVENTS DURING PLAY

REWARDS AVAILABLE

[illegible]

SPECIES NAME _____

PLURAL _____

ALIEN RECORD

BODY TYPE

HOMEWORLD

LENSES

APPEARANCE AND BIOLOGY

GOALS AND ADVENTURE HOOKS

GOVERNMENTAL STRUCTURE AND SOCIETY

[illegible]

CHARACTER SHEET

NAME

[illegible]

#	READYED GEAR	#	STOWED GEAR	
1		1		PSIONIC DISCIPLINES
2		2		
3		3		
4		4		
5		5		
6		6		
7		7		
8		8		MASTERED DISCIPLINES
9		9		
10		10		
NON-ENCUMBERING GEAR		11		
		12		
		13		CLASS ABILITY
		14		
		15		
		16		
		17		
		18		
LANGUAGES		CREDITS		

STARSHIP RECORD

SHIP NAME

CARGO AND NOTES

Cost

HULL TYPE

SPEED

ARMOR CLASS

ARMOR

CREW MIN/MAX

MAX. HIT POINTS

FREE POWER

FREE MASS

FREE HARDPOINTS

CARGO TONNAGE

CURRENT HP

CURRENT CREW

OPERATING COST

MAINTENANCE COST

LAST MAINTENANCE

HOME PORT

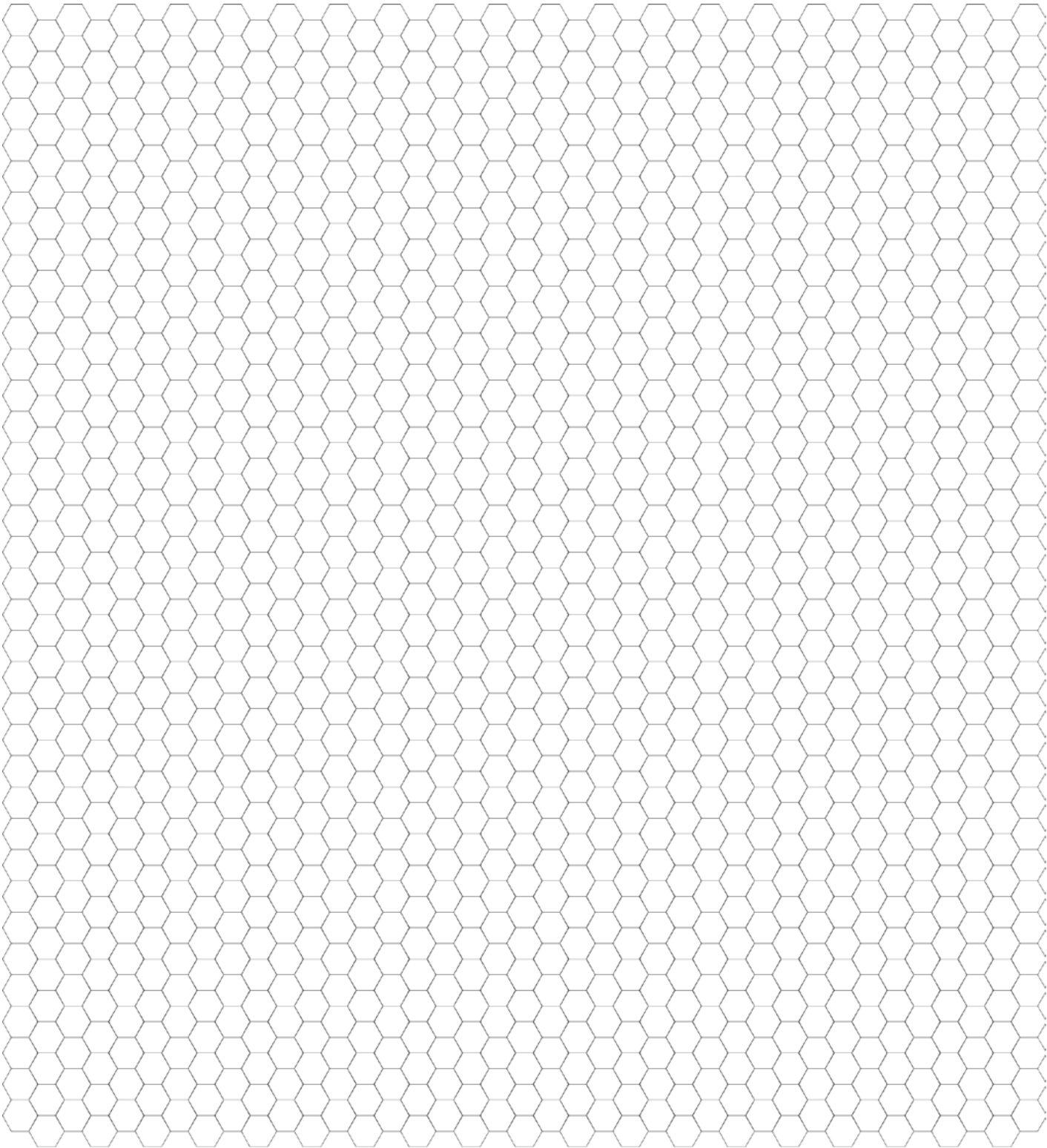
WEAPON	AB	DAMAGE	AMMO	SPECIAL EFFECTS

DEFENSE	SPECIAL EFFECTS

[illegible]

PLANET NAME _____
SECTOR HEX _____

PLANETARY MAP



- | | | | |
|--|--|--|---|
|  Badlands |  Forested Mountains |  Light Evergreen |  Sandy Desert |
|  Dryland Foliage |  Grassland |  Light Forest |  Swamp |
|  Plains |  Heavy Dryland Foliage |  Marsh |  Volcano |