MINDJAMMER™

TRANSHUMAN ADVENTURE
IN THE SECOND AGE OF SPACE

A TRANSHUMAN SCIENCE-FICTION SETTING FOR TRAVELLER

by Sarah Newton & John Snead

TRAVELLER

Galactic
Outer Worlds
Sytar Expansionary Region
Brighten
Sytar Province
Kandistu
Vorshimilayar
Vorshime
Gum Nebula
Trand
Rim Sector
Tsentair
Auriga
Horsus
Fringe Worlds
Successor States
1500 LY
Bastion
1000 LY
Q-Zone
Bastion
Eyes of Orion
Alnitak
Venu Space
Orion Nebula
500 LY
Old
Fish Hook Nebula
Barnards Loop
Nicemone
Lowhigh Radiant
Shrine
Fringe Worlds
Ariane
Arianus Alpha
Pi-Tatl Cultural District
Qipanda
Volshengis
Fabriss Combine
Wolf Clouds
Kandos-Kandos
Ayers
Clandess
Eestin
Galactic
NEW COMMONALITY OF HUMANKIND
PER ANIMUM AD ASTRA

Commonality Space - 193 NCE
t North
Outer Worlds
Guuleman
Guuleman Prime
Valhalla
Lichtstrom
Strahlex
Fringe Worlds
Antares Codominion
Antares
Dimacredont
Corpeddy
Corpeddy
Mardisti Anomaly
Chaimatorque
Geenis Station
Core Worlds
Cepheus
Cepheid Ultor
Earth
0LY
Cepheus Cloud
Galactic Plane
500LY
California Nebula
Hajime
1000LY
Vul
Jesedipere
1500LY
Cygnus Loop
Aquila Rift
Vul Rift
Cyg Rift
Bat-Nebula
Chembu Autonomous Region
Tanagra
Doublehead
Renraku
The Planetary Intelligence
Fringe Worlds
Tormipedee
Commstein
Farsouk
Pecus Major
Mayapur Confederation
Foliate Hierarchy
Peshawar
Cryptomery
Ikeba
Outer Worlds
t South

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DEDICATION by John Snead:

To Alastair Reynolds, Ann Leckie, Charles Stross, and Linda Nagata, four wonderful authors who have helped reinvigorate space opera SF and make it as much as part of the 21st century as it was a part of the 20th, and of course also to my amazing partners Becca and AJ.

The **Necroxenos posthuman entity** is inspired by art master backer Remi Fayomi.

Find out more about ***Mindjammer*** and other Mindjammer Press games and fiction at www.mindjammerpress.com & www.facebook.com/mindjammerpress

MINDJAMMER™

TRANSHUMAN ADVENTURE IN THE SECOND AGE OF SPACE

A SETTING SOURCEBOOK FOR THE TRAVELLER ROLEPLAYING GAME

by Sarah Newton & John Snead

FOREWORDS

Foreword by Sarah Newton

I've loved science-fiction for as long as I can remember; the wonder of watching *Star Wars* as a kid, of being carried away by the words of Carl Sagan in *Cosmos* and wishing, like him, to be transported to Barsoom, or to voyage among the countless worlds and wonders of the Milky Way. Who wouldn't marvel at the vastness and strangeness of the universe and the secrets it oh-so-slowly reveals to us?

Science-fiction is the crucible in which we test our theories about the cosmos as we dream of what might be. Role-playing games let us become co-creators of stories imbued with that sense of wonder; and, together, we share our dreams, and maybe in our thoughts travel somewhere we never knew existed before. Somewhere wonderful.

I've been playing science-fiction roleplaying games for almost as long as I've been reading science-fiction. I've even been privileged to write one: the fantastic transhumanist civilisation of the award-winning ***Mindjammer***, now about to enter its eighth galaxy-spanning year. But ***Traveller*** was the first. I first got my box of little black books back in 1981, and played and refereed it through so many Buck Rogers and Star Wars adventures before discovering the Imperium. So it's with a sense of pride and no small amount of thrills that I find myself coming full circle, to announce ***Mindjammer—Transhuman Adventure in the Second Age of Space***, a setting sourcebook for the ***Mindjammer*** universe for the ***Traveller Core Rulebook*** from Mongoose Publishing. For the past year I've been privileged to work with the awesome John Snead, who has done all the heavy lifting in adapting ***Mindjammer*** to the ***Traveller*** rules, and I'm delighted with the epic scope of what he's created, and I hope you will be, too.

Mindjammer is an attempt to produce a science-fiction role-playing setting for the 21st century, filled with our latest and most keenly felt speculations about the nature of the cosmos and our place within it. Virtual worlds, transhumanism, longevity, genetic engineering; cultural conflicts, global civilisations, utopias versus dystopias, pampered security against dangerous and violent change. The book you're holding will let you play sentient starship characters, hyperadvanced descendants of humankind, individuals who are becoming something more than human—the myriad populations of a vibrant interstellar civilisation.

So charge up your blaster, thoughtcast your orders to the ship sentience, and engage the planing engines—the transhuman adventure is just beginning!

Sarah Newton
Normandy, November 2016

Foreword by John Snead

I first played ***Traveller*** in 1983, and loved both the rules and the setting. I am pleased that ***Traveller*** continues to thrive more than thirty years later, but also recognise that science fiction has changed in that time. The original ***Traveller*** setting of the Third Imperium remains wonderful, but ***Mindjammer—Transhuman Adventure in the Second Age of Space*** provides an additional setting that is very much a part of 21st century space opera. I believe that the combination of this excellent new setting and the classic and enduring magic of ***Traveller*** is especially powerful.

Adventures in the Commonality's Second Age of Space can let you play the iconic ***Traveller*** campaign—a group of explorers or traders in a small starship seeking their fortune in the galaxy—but with one big difference: in ***Mindjammer***, the starship is one of the characters! But this book also expands upon the range of possible adventures for your science-fiction heroes, from Commonality operatives manipulating the cultures and technologies of entire planets, to adventures in the strange virtual worlds of the Mindscape, and much more. As a blend of the oldest science-fiction roleplaying game and a cutting edge science-fiction setting, I'm excited about ***Mindjammer—Transhuman Adventure in the Second Age of Space***, and I hope you will be, too.

John Snead
November 2016

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CHAPTER ONE
INTRODUCTION

"It was the Second Age of Space. The light of human civilisation, which had flickered and threatened to die, suddenly burned bright again with contact with the thousand worlds of space. Humankind laughed, filled with the joys of the power of a new-found youth, and strode forth to bring its message of hope and regeneration to the stars...""

—from "The Songs Of Old Earth", Book I

Welcome to ***Mindjammer—Transhuman Adventure in the Second Age of Space***! This book is a supplement for playing in the ENnie Award-winning far future transhuman science-fiction roleplaying setting using the 2nd edition of the ***Traveller*** rules from Mongoose Publishing. It's a cool yet believable setting of lost worlds, hyper-advanced technologies, and clashing civilisations. In these pages you'll find a unique and compelling space opera universe of action and adventure!

Mindjammer presents the **New Commonality of Humankind**, a vast interstellar civilisation centred on Old Earth. Following the invention of faster-than-light travel only two centuries ago, the New Commonality is expanding to the stars, contacting lost worlds colonised in the distant past. The **Expansionary Era** is a time of turmoil; as the Commonality discovers and assimilates these lost colonies, it finds itself getting "colonised right back", its cultures and stability shaken to the core. Agents of the Commonality battle constantly against cultural contamination, and everywhere the frontier flares in conflict and war.

WHAT'S IN THIS BOOK?

Mindjammer provides a detailed yet open setting, with rich background yet plenty of room for you to create and play the science-fiction game you want. You'll find descriptions of the interstellar civilisation of the New Commonality Era, histories, species and cultures, augmentations, careers, hyper-advanced technologies (including the ubiquitous **Mindscape**), powerful (and often sentient) starships, rules for interstellar travel, worlds, star systems, alien life, and more.

Mindjammer addresses the great science-fiction issues of the 21st century—transhumanism, xenoscience, virtual worlds, synthetic life, cosmological mysteries—while providing a setting ripe with roleplaying potential. It caters for many styles of play: pulpy, hard SF, space opera, political intrigue, military sci-fi, exploration and investigation. This book comprises seventeen chapters; you don't have to read all of them to get started. In fact, you could probably just read **Chapter 2: The Basics** and play using the ***Traveller Core Rulebook***.

Here's what those chapters contain:

- **Chapter 1: Introduction** introduces the ***Mindjammer*** setting and explains what's in this book.
- **Chapter 2: The Basics** gives you a quick overview of the ***Mindjammer*** rules.
- **Chapter 3: Creating Characters** shows you how to create characters, including examples of home cultures, genotypes (species), and careers.
- **Chapter 4: Skills** discusses how ***Traveller's*** skills work in the ***Mindjammer*** setting.
- **Chapter 5: Technology** provides essays on the hyper-advanced technologies of the ***Mindjammer*** setting.

- **Chapter 6: Equipment** details the enhancements and equipment your character may possess.
- **Chapter 7: The Mindscape** describes this crucial part of life in the New Commonality, and provides detailed guidelines for including it in play.
- **Chapter 8: Starships and Space Stations** explains how to use starships to travel between the worlds of the Commonality, and provides statistics blocks for major vessels from Commonality Space and beyond.
- **Chapter 9: Organisations** provides rules for running corporacies, instrumentalities, and other organisations.
- **Chapter 10: The New Commonality Era** describes the history and politics of the New Commonality of Humankind, including example organisation sheets for polities, corporacies, and other organisations.
- **Chapter 11: Cultures** provides rules for describing cultures and cultural conflicts, including guidelines for running cultural operations, as well as descriptions of the key cultures of the New Commonality Era.
- **Chapter 12: Stellar Bodies and Star Systems** provides rules for creating star systems and other stellar bodies, and also for star system resources.
- **Chapter 13: World Creation** provides rules for creating and describing planets and civilisations.
- **Chapter 14: Commonality Space** provides an overview of the universe of ***Mindjammer***, including a detailed look at Manhome, the solar system of Old Earth.
- **Chapter 15: Alien Life** provides rules for alien biospheres and life forms, including example exofauna.
- **Chapter 16: Gamemastering *Mindjammer*** discusses how to incorporate different themes, tones, and styles of play into your game, and how to play popular science-fiction tropes. It also provides rules for **going post**—how to take your character beyond the boundaries of what it means to be human, and to explore transhuman and posthuman themes.
- **Chapter 17: The Outremer Subsector** describes an entire subsector of Commonality Space, providing planetary statistics, maps, and descriptions of more than thirty worlds. At the end of this book we've also provided appendices with blank character and ship sheets, starmap templates and system schematics, a glossary, and an extensive index.

MINDJAMMER AND THE *TRAVELLER* RULES

Mindjammer uses the ***Traveller*** 2nd edition rules from Mongoose Publishing, modified to fit the ***Mindjammer*** universe, and with some additional rules where required. The key differences in ***Mindjammer*** are as follows:

- Skill levels tend to be higher.
- Characters tend to live longer, and have more augmentations.
- Characters use different genotypes (species) and careers, and also have something called **Culture** which can affect their abilities.
- Technology levels are generally much higher, although parts of the Commonality can be much lower.
- Starships use different power plants and manoeuvre and jump drives, different hull sizes, and are generally intelligent. You can even play them as characters!
- World generation is different, with different characteristics and rules for generating star systems and stellar bodies.
- Creatures are designed differently, and are based on **paradigms** and **ecosystems** to let you create realistic and consistent biospheres.
- ***Mindjammer*** has rules for cultures and organisations, and for characters who are **going post**—exploring beyond the frontiers of what it means to be human.

THE NEW COMMONALITY OF HUMANKIND

The **New Commonality of Humankind** is a beacon of light in the blackness of space; hyper-advanced technology and transcendent intelligences are its gifts to the stars. The **Mindscape**, a vast technological "shared consciousness", links the citizens of the Commonality together, storing the memories—and even personalities—of dead generations. Every Commonality citizen can boost their skills and knowledge using **Mindscape implants**—direct neural connections to the Mindscape—and the astonishing powers of **technopsi**.

The Commonality is a predominantly human civilisation—but the very definition of "human" has expanded to a staggering diversity. The inhabitants of Old Earth who began the slower-than-light diaspora millennia ago were a homogenous species, but divergent evolution and genetic manipulation have created a multiplicity of post-human and para-human subspecies—or **hominids**—tailored to the many environments of space. Uplifted animals—the **xenomorphs**—populate whole worlds, taken to the stars as cheap labour, and created intelligences—the **synthetics**—are everywhere, whether sentient starships with the personalities of dead heroes, or intelligent weapons, exploratory probes, or other life forms tailored for a myriad of purposes.

Everywhere the Commonality expands, it finds life, a natural part of the evolution of the cosmos. Since the beginning of the Expansionary Era two hundred years ago, the Commonality has even made contact with alien intelligence—to find it far stranger and more difficult to understand than anyone had ever dreamed. The vegetable intelligences of Harkenay and Jendisti, the violent and corrosive Hooyow, and the silent Lowhigh are only the more comprehensible; and with the Planetary Intelligence, contact threatens to transform even humanity itself.

THE EXPANSIONARY ERA

Mindjammer takes place in an era of violent change. In the past, the First Commonality of Old Earth achieved utopia, blessed by long life and advanced technology. But hand in hand came stagnation and decay and, while the stars sang with humanity's song, Old Earth fossilised and began to die.

Two hundred years ago everything changed. Almost overnight, the scientists of Old Earth discovered the secrets of faster-than-light travel. In their **planeships** they ventured to the stars, in search of the colonies they had sent out millennia before.

What they found stunned them. The galaxy was alive! Everywhere they went, they found people. Vibrant cultures, strange civilisations, worlds savage and untamed. Suddenly, Old Earth found itself old no longer, but young, and excited by the prospects of an unknown future. It was a new age of discovery and expansion—a Second Age of Space.

Now, the Commonality contacts lost colonies almost every day. Some are peaceful, others deeply inimical; the galaxy is a cacophony of conflicting cultures. As it expands, the Commonality struggles with the slow communication times of 2-space; the Mindjammers, sentient starships charged with maintaining interstellar communication and the Mindscape, hold this far-flung civilisation together; in the Core Worlds around Old Earth, new 3-space **far gates** promise instantaneous travel and technological revolution. Everywhere the Commonality struggles to keep control.

TRANSHUMAN SPACE OPERA

This book is a supplement for the ***Traveller*** 2nd edition roleplaying game published by Mongoose Publishing, and provides all you need to play far future transhuman space opera adventure in the ***Mindjammer*** setting using those rules. The New Commonality setting is vast enough to contain any number of campaigns; this book presents one part—the **Outremer Subsector**—as an example campaign, a turbulent frontier region of fractured polities on the very edge of the Commonality, bordering the Venu Empire, one of the Commonality's deadly foes. It's an area of constant cultural conflict and intrigue, and everyone is expecting war. You'll also find descriptions of other parts of the Commonality—including a look at **Manhome**, the solar system of Old Earth itself—which you can use to create your own worlds, sectors, starmaps, cultures, and civilisations, either within the Commonality or beyond its frontier.

Using these rules, you can play characters like:

- **soldiers of the Armed Forces Instrumentality**, defending the Commonality frontier against the incursions of virulent alien cultures.
- **agents of SCI Force**—the Security and Cultural Integrity Instrumentality—investigating strange new cultures and managing their integration into the Commonality.
- **the heroic crews of Space Force**, patrolling the Commonality space lanes and the virtual spaces of the Mindscape on the lookout for spies, alien agents, and invaders.
- **intrepid 2-Pilots**, navigating the deadly mysteries of 2-space in their faster-than-light planeships, in constant mental contact with their sentient starship comrades. You can even play a sentient starship yourself!
- **canny New Traders**—the new breed of merchants on

Other Mindjammer Books

This book isn't the only resource for the **Mindjammer** *universe.* ***Mindjammer Press*** *publishes many other supplements: adventures, sourcebooks, campaign packs, tech books, and more. Although most are written for the* **Fate Core** *version of the* **Mindjammer** *game, they contain huge amounts of playable detail you can easily use in your* **Traveller** *game, and we've taken care to ensure that there's a lot of crossover between* **Mindjammer Fate** *and* **Mindjammer** *in the way game elements are described, so you can easily use* **Mindjammer** *worlds, equipment, creatures, organisations, ships, and even adventures with little or even no conversion. Check out the whole range at* www.mindjammerpress.com *or your favourite friendly local games store!*

the Commonality frontier, mistrusted by most as evolutionary throwbacks to the bad old days of money and speculation, carving out a living carrying information and even goods between worlds, running the Commonality embargo and dodging agents and enforcers.

- **rogues and adventurers**, the flotsam and jetsam of the Fringe, xenomorphs falling between the gaps, disenchanted sentient starships left behind by the new technologies of 3-space.
- **explorers, mercenaries, socialites, scientists and spies**—and just about any character you can imagine in this adventure-filled galaxy of the far future!

But that's not all. The ***Mindjammer*** rules and setting are deliberately modular, allowing you to cherry-pick elements if you have a particular setting in mind. Maybe you'd rather use a different published science-fiction setting—or maybe design one from the ground up. Or maybe you'd like to base your game on a setting you've seen in a movie or read in a novel. Use this supplement to power your transhuman science-fiction adventures; the only limitation is your imagination. Explore the infinite worlds of space!

THE UNIVERSE AWAITS!

Never has there been a greater time of opportunity. Old certainties are dying; the universe is in flux, and for the first time in ten thousand years no one knows what the future will bring. So charge your blaster, thoughtcast your orders to the starship sentience, and fire up the planing engines—come and defend the light of humanity's greatest civilisation as it spreads to the stars!

CHAPTER TWO
THE BASICS

"The universe has a pattern. The further we push ourselves to transcend our limitations, the greater we perceive that pattern to be. It's as though it was all a great game, but you only discover the rules by playing..."

—Ardent Inquiry 7-levo-4, global node dirigeant of the Tysk-Reimform Cluster, upon experiencing Stage III Gestalt Communication from the Planetary Intelligence

LET'S PLAY!

Mindjammer is a supplement for the 2nd edition of the ***Traveller*** roleplaying game from Mongoose Publishing. This chapter gives you a quick overview of how this book works with the ***Traveller Core Rulebook***, including some of the key differences. The chapters which follow expand upon these basics in more detail.

THE CHARACTER SHEET

We're going to structure this overview around the elements you can find on the ***Mindjammer*** character sheet. There's a blank example at the end of the book (page 369); the adjacent sheet is already filled in with an example character, Henivla Ex-Colchis. Henivla is a **new trader**—a ***Mindjammer*** universe take on a ***Traveller*** classic, the tough and gruff independent spacefaring trader. New traders are often found out on the Fringe, away from the complex economies of the Core which are painstakingly managed by hyperintelligent transhuman sentiences. On the Fringe, amid the chaos of Rediscovery, the Commonality has found itself forced to improvise—and even to fall back on methods it had thought outdated millennia ago. There's a lot of scope to play just the character you want in ***Mindjammer***.

Name, Culture and Genotype

Culture is a big thing in ***Mindjammer***. The Core Worlds of the Commonality are an ancient and powerful interstellar civilisation, colonised by slowship over many millennia. They're weird and complex, ancient and baroque—but also extremely varied, thanks to their thousands of years of civilisation. Out on the Fringe, there are civilisations which have only just been rediscovered. Some are very new, some are ancient; some even mimic aspects of extremely ancient historic cultures—or even prehistoric ones, such as our own! You can select from a broad range of cultures, but for your first character we recommend you pick the Commonality culture, as that's the "common" culture to the New Commonality of Humankind, the interstellar melting pot which is spreading to the stars. You can pick any name you choose—there are thousands upon thousands of worlds out there.

Genotype is essentially your species. It's a bit broader than that, as it also includes artificial life forms such as **synthetics**, evolutionarily divergent species derived from human beings called **hominids**, and even sentient beings derived from uplifted terrestrial animals, known as **xenomorphs**. These species fill the roles of "aliens" in many science-fiction games; they are indeed often very alien, but they also share enough commonality with human beings that roleplaying one isn't an impossible task.

"Real" aliens—called **exointelligences**—do exist, but in ***Mindjammer*** aliens really are alien. Exointelligences may be so different from humankind that there are literally no points

MINDJAMMER™

TRANSHUMAN ADVENTURE IN THE SECOND AGE OF SPACE

CHARACTER SHEET

Name: Henivla ex-Colchis
Occupation: New Trader
Culture: Commonality
Genotype: Commonality Human
Actual Age: 162
Tech Index: T9 Second Age of Space
Longevity Packages: 3
Apparent Age: Mature Adult
Homeworld: Colchis / Outremer
Economic System: Disinterested Resource Allocation
Memes: Money is Archaic; Vanguard of the Colchis Cartel; We Are a Light to the Rest of the Galaxy

CHARACTERISTICS

Strength 7 DM +0	Endurance 9 DM +0	Education 10 DM +1
Dexterity 9 DM +0	Intellect 13 DM +2	Social 5 DM -1

RESOURCES

Resource Points:

Credits: Cr162,000

SKILLS

Admin 1	Engineer ( )	Interface (remote ops) 1	Pilot (spacecraft) (0) 1
Advocate	Engineer ( )	Interface ( )	Pilot ( )
Animals ( )	Engineer ( )	Interface ( )	Pilot ( )
Animals ( )	Explosive	Investigate	Profession ( )
Athletics ( )	Flyer (grav) (0) 1	Jack-of-all-Trades	Profession ( )
Athletics ( )	Flyer ( )	Language (Universal)	Recon
Athletics ( )	Gambler	Language ( )	Science (astronomy) 1
Art ( )	Gunner ( )	Language ( )	Science ( )
Art ( )	Gunner ( )	Leadership	Social Science ( )
Astrogation 2	Gun Cbt (energy) (1) 3	Mechanic	Social Science ( )
Broker (3) 6	Gun Cbt ( )	Medic ( )	Seafarer ( )
Carouse (3) 4	Gun Cbt ( )	Medic ( )	Stealth
Deception (1) 2	Heavy Weapons ( )	Melee ( )	Steward 1
Diplomat 2	Heavy Weapons ( )	Melee ( )	Streetwise 1
Drive (wheeled) 0	Informatics (Mindscape) (1) 4	Melee ( )	Survival
Drive ( )	Informatics ( )	Navigation	Tactics ( )
Drive ( )	Informatics ( )	Persuade 1	Vac Suit (0) 1

HALO

Halo augs: Mindscape Implant
Extension: Sentinel ("Market Maker")
Extension: Avatar

Technopsi Points:

OTHER AUGMENTATIONS

Name	TI	Name	TI
Accelerated Healing		Cosmetic Enhancer	
Cognitive Aug +2		Longevity	
Comprehension Aug +2			

CONNECTIONS

Colchis Cartel organisation: Scale 3, Reach 7, Admin, Broker, Diplomat
Contact: New Trader
Contact: SCI Force

STUDY PERIOD

Training in Skill:

Weeks: /

Study Periods Complete:

EQUIPMENT

Weapon	TI	Range	Damage	KG	Mag	Traits
"Colonel Gun" sentient null pistol	7	100m	3D	1	ZIP	Zero-G

Armour	Rad	Protection	KG	Options
T9 P-Suit	70	+11 (+9)	3	Medkit (Biomed Array), Variform, Self-Sealing, Smart Fabric

Equipment	Mass	Equipment	Mass
Effectors	-	Personal Protection Drone	-
Grav Belt	2	PSA (All Sensors)	-
PMI	-		

Total Carried Mass: 6

TRAITS

Notable (EDU)
Insatiable Curiosity 2
Risk Taker 1

NOTES

of commonality: they may think very differently, or at vastly different speeds, or may even have trouble perceiving us—or we them! We've included several exointelligences in this book, including two in **Chapter 15: Alien Life** which are to some extent comprehensible to humankind (page 318), to give you a roleplaying challenge if you're attracted by the alien!

Occupation

Mindjammer uses careers in the same way as standard ***Traveller***, but has its own specific set of careers to chose from (see page 39), including such ***Mindjammer***-specific careers as **Mindscaper**, **Culture Agent**, and **Genurgist**. While it's possible that you've retired from your career when you start play, the fact that lifespans are often extremely extended in ***Mindjammer*** means that you also may still belong to your career, and have it as your occupation in play.

Actual Age, Apparent Age and Longevity Packages

Extreme longevity is a fact of life in the New Commonality, and it's possible that your character may be well over a hundred years old when you start play. In fact, it's possible to play characters who are **centuries** old in ***Mindjammer***—all the while appearing to be in the peak of fitness for a mature adult specimen! Conversely, out on the Fringe, many rediscovered worlds may not yet have access to longevity treatments, and may be limited to standard human lifespans. Use the Actual Age and Apparent Age entries on the character sheet to highlight when longevity has affected your character strongly.

When creating characters, longevity is measured in terms of **longevity packages**, which represent bundles of skills and other abilities your character has gained during a fifty-year period, in addition to gains made in standard career terms. A character with two longevity packages will be 100 years older than an equivalent character without. As extremely long-lived characters can become quite different (and even strange!) from younger characters, we recommend you limit your initial characters to no more than 3 longevity packages, and probably less. See page 78 for much more on longevity.

Tech Index

Mindjammer uses **Tech Indices** instead of standard ***Traveller*** tech levels to describe the types of technology available to characters. There are 10 Tech Indices, from the very low, almost animal-level T0, through to the cutting edge T10 of the Core Worlds. The Commonality generally is T9, the Tech Index at which faster-than-light travel (called **planing**) becomes available, although many rediscovered worlds out on the Fringe are much lower.

Your character has a **personal Tech Index** which represents the technology he is comfortable using. When you start play, your personal Tech Index is equal to the Tech Index of your culture: if you're from the Commonality culture, your personal Tech Index is T9. When you try and use technology that's higher or lower than your personal Tech Index, you may face difficulties. See page 16 for much more.

What Is the Mindscape?

*The Mindscape is the virtual data storage and communication network pervading Commonality Space, to which all citizens are neutrally connected at maturity using the **Mindscape implant**. Citizens isolated from the Mindscape (by distance or illness) report feelings of loneliness, isolation, even depression.*

*It's a vast space, storing the entire experience of the human race and the memory engrams of generations living and dead, enabling skill augmentations and the pseudo-psionic abilities known as **technopsi**, essential to Commonality life. It's the sole reason the Commonality survives as a single civilisation: with its vast distances, long travel times, and enormous number of worlds, the Mindscape allows the Commonality's cultures, languages, and institutions to retain a common identity.*

*Special agents and security forces in the Commonality have **special operations chips** instead of standard Mindscape implants, enabling them to modify the Mindscape in extreme ways and even reach into the minds of those connected with attacks or attempts to control their thoughts. Offenders in the Commonality have their Mindscape implants temporarily or permanently disabled, becoming **Mindscape exiles** or **lockouts**; such criminals often create counterfeit special operations chips known as **black chips**, using the identities of innocent victims they've (usually) killed—identity theft in the Commonality is a lethal business! Black chips are hunted down by SCI Force operatives, Mindscape sentinels, and agents of the Communications and Internal Security Instrumentalities.*

Homeworld and Economic System

You can come up with your own homeworld, or pick one from the many published ***Mindjammer*** worlds, including those from the Heritage Contestation octant of the Outremer subsector detailed in **Chapter 17: The Outremer Subsector** (page 334).

Just as worlds in ***Mindjammer*** can have different levels of technology, they can also have very different economic systems. In the Core Worlds, altruistic hyperintelligences have for millennia taken care of the distribution of goods and services, to the extent that pretty much everyone (or so they say…) gets whatever they want or need, without the need for money. Out on the Fringe, things get a lot more chaotic, and over the past two hundred years the Commonality has found itself forced to

"reinvent" money in the form of the **Rediscovery Era Currency Unit**, usually called the **RECU** or just **credit**.

Your character's initial economic system comes from his culture (or possibly homeworld). If you belong to the Commonality culture, for example, your economic system is **Disinterested Resource Allocation**, meaning you'll have little or no experience of ever needing or using money. See page 208 for much more on economic systems.

Wealth in the Second Age of Space

For millennia, money was an anachronism in the Commonality of Humankind—as outmoded and obsolete as an abacus or a tinder box, a relic of the bad old days of primitive barter and speculation. Resource allocation in the Commonality is both complex and simple: thanks to makepoints, and the near unlimited power provided by zero point power cells, most items people desire or need are readily and freely available. Where there's scarcity, it's usually because of legal or social restrictions—heavy weapons aren't generally made available to the populace, for example. In such cases, acquisition is less a factor of anything as unsophisticated as money, and much more reliant upon personal connections and access to resource allocation plans.

Or, at least, that's the theory. In the last two hundred years, out on the Fringe, all the old economic certainties which upheld the Commonality for ten millennia have fallen, replaced by chaos and unpredictability. In the face of poor communications, lack of intercultural cooperation, and inadequate resource and transportation networks, the Commonality has fallen back on that most primitive of expedients after all—money. The ***Expansionary Era Currency Unit,*** *officially called the EECU but generally called the credit, is accepted as scrip across the Fringe and on many Commonality worlds. Small, difficult to destroy, and semi-sentient, credits are available in various shapes and denominations, from coins, to variable value cards, to flexible bills, and are able to identify themselves in such a way as to preclude forgery by any but the most sophisticated endeavours. They look very impressive, bright, technological, holographic, sentient, and have become the de facto interstellar currency all across the Commonality frontier.*

They're immensely popular amongst the people who use them, and fashionable in some of the Commonality's more decadent or pretentious parts. Needless to say, the Core Worlds refuse to have anything to do with such savagery…

Memes

Memes are the ideological counterpart of genes: they're "units of ideology" which make up cultures—things that people believe in, or think are important. In ***Mindjammer***, memes are brief phrases which sum up your character's view of life and the universe around him. Examples of memes include things like *Live and Let Live*; *Life, Liberty, and the Pursuit of Happiness*; or *We're Bringing the Light of Civilisation to the Universe*.

Your character will have three memes, and they can provide DMs to checks where they might affect how you act. See page 81 for more on memes.

Characteristics

Mindjammer uses the standard ***Traveller*** characteristics. However, ***Mindjammer*** characters may often have much higher characteristic scores than standard ***Traveller*** characters, due to their increased age and level of augmentation. Indeed, ***Mindjammer*** characters may be so augmented that they're on the verge of becoming something other than human—a profound experience called **going post** (see page 326).

Traits

Traits can play a big role in ***Mindjammer***. They're tweaks or exceptions to the ***Traveller*** rules: bonuses, penalties, or other mechanical effects your character gets by virtue of belonging to a particular genotype, or even by being much older or more experienced than other characters. A common trait is a **longevity trait**, which measures how increasingly weird your character may be becoming by virtue of being much older than standard human norms.

Halo

We mentioned the Mindscape above—the vast information store and shared consciousness your character belongs to by virtue of having a Mindscape implant. You can use the Mindscape to gain all kinds of special abilities, from storing and sharing **exomemories**, to acquiring expert skill systems to enhance your abilities. All of these are stored in a virtual extension to your own mind and personality called a **halo**. When you're connected to the Mindscape, all of your halo abilities are available for you to use; when you're disconnected, you temporarily lose access to them. See page 111 for more on your halo.

Augmentations

We've already mentioned augmentations a few times above. They're a big thing in ***Mindjammer***; technology is very advanced in the Commonality, and it's very common for a character to have multiple augmentations, including the near-ubiquitous **Mindscape implant** and **longevity** augmentations.

Augmentations generally use a form of technology which combines aspects of genetic modification, cybernetic implants, artificial life, nanotechnology, and many other fields; in ***Mindjammer***, it's referred to as **genurgy**, and the scientists who deploy it as **genurgists**. The aquatic hominid **Chembu**, who live in symbiosis with the almost incomprehensibly alien **Planetary Intelligence**, are the foremost genurgists of the Commonality.

If an augmentation depends on your halo to function, include it in the "Halo" section of your character sheet; if not, include it in "Other Augmentations".

Skills

Mindjammer mostly uses the standard ***Traveller*** skills, with a few tweaks for things relating to the Mindscape and hyperadvanced technologies; see **Chapter 4: Skills** for details. In particular, skill levels in ***Mindjammer*** can be quite a lot higher than standard ***Traveller***; not only can characters be much older, with one or more **longevity packages** under their belt, but they may also have numerous augmentations which boost their skills. One particular type of augmentation is the **skill chip**, which provides your character with a **halo skill**—an artificially intelligent skill enhancement package which your character can use by virtue of his connection to the Mindscape, and which gives you one or more additional levels for a particular skill. When you mark a skill on your character sheet, write down your unaugmented skill level first, and then any boosted skill level resulting from a halo skill in brackets after. That way, if you're suddenly disconnected from the Mindscape for any reason, you can easily switch to using the unaugmented skill level.

Connections

Connections work basically as they do in standard ***Traveller***, except that ***Mindjammer*** also provides you with **organisations**, which can provide you with DMs to certain actions. For example, if you spent your career in Space Force (the Commonality equivalent of ***Traveller's*** navy), you might have a connection to the Space Force organisation which can provide DMs to skill checks under specific circumstances. See page 185 for more on organisations.

Weapons, Armour, and Equipment

Mindjammer uses many of the standard ***Traveller*** items of equipment, armour, and weaponry, but also provides many more, especially higher tech items. In particular, ***Mindjammer*** has blasters and personal force fields, and many items of sentient equipment—devices augmented with artificial personalities, often derived from the personality matrices of deceased specialists stored in the Mindscape. On the character sheet for Henivla Ex-Colchis on page 9, "Colonel Gunne" is just such an item—a sentient weapon capable of conversing with its wielder, providing targeting enhancements, and even firing on its own.

Resources

Resources are tied closely in with your character's Economic System (see above). Not all characters in ***Mindjammer*** use money; it's very much up to your personal preference, campaign type, or your character's backstory and personal Tech Index and Economic System. The Resources section on the character sheet lets you mark down your money in credits, or alternatively an equivalent level of access to the Commonality's resource allocation sentiences, measured either in credit-equivalents or **resource points**. See page 210 for more.

WHAT NEXT?

Now you've got a broad feel for ***Mindjammer*** and how it differs from the standard ***Traveller*** rules, it's time to jump in and get more detail. If you're interested in creating a ***Mindjammer*** character, go ahead to **Chapter 3: Creating Characters** and check out the checklist which will let you get on with that right away. If you'd like to find out more about the ***Mindjammer*** setting first, take a look at **Chapter 10: The New Commonality Era**, **Chapter 14: Commonality Space**, and **Chapter 17: The Outremer Subsector.**

CHAPTER THREE
CREATING CHARACTERS

"If there's one thing we have in abundance, it's diversity. Everywhere I go, everyone I talk to, human or hominid, xenomorph or synthetic, is different. That would be our greatest strength—the one thing that makes me think our civilisation will survive this era—if only I could get people to understand it. But there I suppose I'm guilty too of wishing we were all the same. A Commonality of individuals: it's the oldest paradox there is."

— Autotroph Iridis Elkior, Emissary of the Von Neumann's World Tribune Sentience, speaking out in favour of the Return To Hunger movement, 186 NCE

Creating characters in ***Mindjammer*** follows the rules from the ***Traveller Core Rulebook,*** but with the important differences described below. You can find a ***Mindjammer*** character sheet on page 369, or download one from *www.mindjammerpress.com*.

Character Creation Checklist

Work through the following checklist to create your ***Mindjammer*** character.

1. Choose a culture, homeworld, and genotype.
    a. Determine your personal tech index (TI).
2. Roll characteristics as per the ***Traveller Core Rulebook***.
    a. Modify characteristics for culture, genotype, and homeworld if required.
    b. Determine characteristic modifiers.
3. Gain **background skills** for your culture and homeworld.
    a. Establish your **initial age** based on culture and genotype.
4. Choose a **career**. You can't choose a career you've already left.
    a. Roll to qualify for the career.
    b. If you qualify, go to step 5.
    c. If you don't qualify, you can go to **Resource Allocation Board** or enter the Civilian career or the Rogue career (page 63). If your personal TI is 8 or less, you can also automatically choose the Downtecher career.
5. If this is your first time on this career, get your **basic training.**
6. Choose a specialisation for the career. If you're changing specialisation while remaining in the same career, ensure you come up with a good explanation, and abide by the rules for changing specialisation in that career (page 40).
7. Roll for skills and **survival** in the career.
    a. Choose one of the skills and training tables for this career and roll on it.
    b. Roll for **survival** on this career.
    c. If you succeed, go to Step 8.
    d. If you didn't succeed, then events have forced you from this career. Roll on the Mishap table, then go to Step 10.
8. Roll for **events** in the career.
    a. Optionally, establish a **connection** with another player character.
9. Roll for advancement.
    a. If you succeed, choose one of the skills and training tables for this career and roll on it. Increase your rank and take any bonus skills from the Ranks table for this career.
    b. If you roll less than the number of terms spent in this career, you must leave this career.
    c. Military and Security career characters can roll for commission **instead of** rolling for advancement.
10. Increase your age by 4 years. If your character has a

biological age of middle age or older (34 years old for humans), roll for **ageing**.

a. Each term, depending on culture, you may have to make a **longevity roll**.

b. If you succeed at the longevity roll, you automatically gain either the Longevity augmentation or the Rejuve augmentation if you don't have it already (see page 103). Increase your **actual age** by 50 years and gain a **longevity package** (page 79). You gain additional skill levels, contacts, augmentations, an **extension** (page 110), and a **longevity restriction** (a kind of behavioural inhibition—see page 80). The skills and augmentations gained from a longevity package must come from your current career.

c. If you fail at the longevity roll, you age 4 years for the current term as normal, and do not gain any of the benefits listed in (b) above.

11. If you've left your current career, roll for a **benefit**. This can be **credit** (cash or resource points, depending on your economic system), or **another benefit** (usually an item of equipment). Then go to Step 4 to choose a new career; or to Step 13 if you wish to finish your character. Otherwise, go to Step 6.
12. Finalise any connections with other characters.
13. Select three **memes** for your character (page 81).
14. Choose a **Campaign Skill Pack** and allocate skills from that pack among your group (replace Electronics with Interface or Informatics—see page 87).
15. Purchase starting equipment.

CHARACTERISTICS

Your first step when creating your character is to generate your characteristics. ***Mindjammer*** uses the same six characteristics as the ***Traveller Core Rulebook*.** You can choose to roll all six characteristics exactly as described in that book, or you can use point-based character generation (see page 82).

While all other characteristics are limited to a maximum score of 15, INT and EDU can reach a score of 18. See **Going Post** (page 326) for raising these characteristics past human limitations. In theory, there's no limit to how high your character's INT or EDU can go. However, characters exceeding 18 in either or both INT or EDU are sufficiently far beyond human limitations and comprehension that they become difficult to play. These posthuman entities typically find the company of ordinary people dull, and seek out others of their kind, or find ways to travel beyond what most believe to be the bounds of reality.

Creating Synthetic Installation Characters

If you want to play a synthetic installation (page 32) such as a sentient starship, roll only for DEX, INT, EDU, and SOC. Note that for installations DEX doesn't refer to physical dexterity, but rather to how carefully you can perform tasks depending primarily on physical accuracy and precision

Social Standing

Social Standing has a different meaning in ***Mindjammer***. Concepts of "nobility" don't really apply in the Commonality, or across most of the Fringe. Some Fringe Worlds and a few independent Lost Colonies may have social systems which resemble feudal structures, but mostly they're the exception, and Commonality society is broadly meritocratic, with individuals coexisting on a more level field.

Instead, the Commonality is characterised by many competing cultural systems, and a deep conservatism in the Core. Some Core Worlds have societies where entire professions are inherited; and the Commonality in general relies more on contacts, influence, and access to resource allocation and distribution systems to determine an individual's lifestyle and relative position in local and broader hierarchies. **This** is what Social Standing refers to in the Commonality: a reflection of fame, influence, and connections. Someone with a high SOC has a greater chance of obtaining favours, gaining access to exclusive events, rare objects, or equipment, than someone with a low SOC.

Characters actively use Social Standing when trying to acquire goods or get things done—it often plays the role of "money", which mostly only exists out on the Fringe. SOC can go up and down relatively easily, and may be damaged by failed missions, social gaffes, and other errors of comportment.

BACKGROUND SKILLS

Your character gets a number of **background skill points** equal to your EDU DM +3. Background skills derive from your education and upbringing on your homeworld and in your culture.

You **must** select any background skills indicated by your **homeworld** (page 16). You **may** select from any of the culture background skills listed in the cultures below.

You may select from any of following **education skills,** regardless of your culture or homeworld. Your choice of skills may be restricted by your **personal Tech Index**. Any background skill you select is acquired at level-0.

Education Skills: Admin, Advocate, Art, Carouse, Drive (or Animals, depending on TI), Engineer, Flyer (if T4+), Interface, Informatics, Language, Mechanic, Medic, Profession, Science, Social Science, Seafarer, Streetwise, Survival, and Vac Suit (if T6+).

Tech Index and Tech Level

Instead of standard **Traveller** *Tech Levels,* **Mindjammer** *uses* ***Tech Indices*** *(abbreviated as "TI" or simply "T"). The following is a conversion table between Tech Index and Tech Level. In this book we refer to TI rather than TL except when specifically referring to technology or equipment in another* **Traveller** *book. It's important to remember that this conversion is approximate; there are substantial differences between technology in* **Mindjammer** *and the technologies in the* **Traveller Core Rulebook**, **High Guard**, *and the* **Central Supply Catalogue.** *Several of the most obvious examples are that gravity engines are only discovered at T7 (TL10-11), small antigravity units like suspensors and grav belts are only developed at T8 (TL12-14), and the 2-space planing engine, the first method of faster than light travel, is only developed at T9 (TL15-18).*

Table 3-1: Tech Index and Tech Level

Tech Index	Tech Level	TI Title
T0	TL0	Post-Animal
T1	TL0	Stone Age
T2	TL1	Metal Age
T3	TL2 - TL3	Age of Enlightenment
T4	TL4 - TL5	Industrial Age
T5	TL6 - TL7	Computer Age
T6	TL8 - TL9	Age of Genurgy
T7	TL10 - TL11	First Age of Space
T8	TL12 - TL14	Age of Ubiquitous Intelligence
T9	TL15 - TL18	Second Age of Space (Commonality standard)
T10	TL19 - TL21	Age of 3-Space (Commonality maximum)
T11	TL22+	Interdimensional Age (theorised next step in Commonality evolution)

Homeworld

*If you're from the Commonality culture or the Core Worlds culture, you don't have to generate your homeworld during character creation, although it's strongly recommended. For all other characters, see **World Creation**, page 249, to create your homeworld. Your homeworld determines your personal Tech Index (page 10), your starting Economic System (below), and may require you to take certain background skills.*

CULTURE

There are three main cultures in the Outremer Sector: the Commonality, the Fringe, and the Venu.

- **The Commonality culture** means your character comes from the Commonality and is part of the largest and most advanced known polity. A Commonality character may automatically gain a **longevity package** (page 79) before you generate his career or careers (see **Pre-career Education**, page 38). Almost all Commonality characters possess both the Longevity augmentation and a Mindscape implant.
- **The Fringe culture** means your character is from one of the dozens of small polities and independent worlds that exist between the Commonality and the Venu. Fringe cultures include the Dendryphon, the Sentient Alliance, the Zarus Dominate, and isolated worlds in the Q-Zone. See **Polities of the Outremer Subsector** (page 334) for more on these Fringe polities, and below for character generation details for several polities and groups.
- **The Venu culture** means your character comes from the warlike and xenophobic Venu.

Cultural Parameters

Each culture write-up contains the same set of parameters. Some are self-explanatory or common to ***Traveller***; new ones are described below.

TECH INDEX

A culture's Tech Index is similar to a culture's TL in the ***Traveller Core Rulebook***. It determines the **personal Tech Index** (page 10) of a character from that culture, representing the tech the character is comfortable with. Personal Tech Index also affects which careers a character can select. Unlike Economic System, personal TI remains static unless events in a character's career change it.

Personal Tech Index is important when interacting with equipment and vehicles from other TIs. Characters suffer a DM-2 per difference in TI when operating, attempting to repair, or learning to use equipment or vehicles from a higher TI, and a DM-1 per difference in TI when operating, attempting to repair, or learning to use equipment or vehicles from a lower TI.

For example, if your personal TI is T8, you incur a DM-4 when attempting to use T10 equipment and a DM-1 when attempting to use T7 equipment.

ECONOMIC SYSTEM

Because it greatly influences benefits rolls and may impose medical debt during character generation, it's important to know the **Economic System** of the culture you're in during each term. If you're in the Commonality culture and injured as part of service, for example, your medical care is free; while being injured in service out on the Fringe may cost you credit and even leave you in debt, depending upon the prevailing Economic System. You can easily change Economic System when you change career, affecting debt and income from that career.

There are seven Economic Systems in the Outremer subsector, affecting how individuals in a given culture acquire goods and wealth. They are:

- **Barter:** Characters exchange goods and services with one another without money, credit, or other intermediary.
- **Confiscation:** Elites confiscate much of the culture's wealth, leading to an increasingly centralised ruling class.
- **Disinterested Resource Allocation:** Society efficiently distributes resources according to need and desire, while also providing incentives for success.
- **Interested Resource Allocation:** Society distributes resources according to need and desire, but ensures elites gain an especially large share of goods and wealth.
- **Regulated Money Economy:** Money is the basis for the economy, but society ensures that even its least well-off members have a reasonable standard of living, which wealthier members pay for with modest taxes.
- **Planned Economy:** Society allocates resources based on need. Individuals are free to purchase luxuries, but pay significant taxes on such purchases.
- **Unregulated Money Economy:** Goods are bought and sold and money is earned as described in the ***Traveller Core Rulebook***.

See **Economic Systems** in **Chapter 10: The New Commonality Era** (page 208) for descriptions and rules for these seven Economic Systems.

TRAITS

Cultures may also provide members with one or more **traits** (page 34), although some do not. Your trait should at least partially be the result of your being raised in your culture, as opposed to being innate.

Changing Economic System and Personal Tech Index During Character Creation

Personal Tech Index and Economic System can change during character creation. For example, spending a term as a Downtecher (Uplifter) can increase your personal TI by +1 (up to a maximum of T9), whereas spending a term as a Downtecher (Barbarian) can decrease your personal TI by -1. Also, some **events** *can alter your personal TI.*

Your Economic System does not determine which careers you are eligible for, but certain careers go along with certain Economic Systems. If you select a career with a different Economic System from your current one, you change your Economic System, and all benefit rolls for that career are made using your new Economic System. See individual career descriptions and events for further information.

GENOTYPES

Some cultures may tend to compromise specific genotypes (natural or artificial "species"). You should select one of these as your genotype.

MEMES

Cultures adhere to certain values or ideologies, known as **memes** (page 81). At least one of your three memes should be based on one of your culture's memes.

INITIAL AGE

This is the age at which you begin your first career term. You may have already been through pre-career education (page 38) by this point.

AGEING

Not all ***Mindjammer*** character are subject to natural ageing; in fact, most Commonality citizens are not. Extremely extended lifespans are common in the Commonality; this section indicates whether or not your character has received the Longevity augmentation (or something similar) and has effectively ceased to age physically, or whether he's subject to the standard ***Traveller*** ageing rules.

CULTURAL BACKGROUND SKILLS

Typical skills which members of your culture possess. You **may** select any of these skills using your background skill points.

BACKGROUND AUGMENTATIONS

Some cultures provide their members with one or more background augmentations. These are free to any character from that culture, and you can obtain them automatically, although you can also choose not to take them. If you choose not to, think of an explanation why (this is particularly important if you decide not to take a Mindscape implant if you're from the Commonality or Core Worlds cultures). If you're from the Commonality or Core Worlds cultures and decide not to take a Mindscape implant, this means you automatically possess the **Implant Reject** flaw: see **Flaws** (page 36). **All characters who obtain a Mindscape implant also automatically gain 1 level of a halo skill** (see page 77).

LANGUAGE

This is the language which you speak fluently.

PRE-CAREER EDUCATION

Education is common in ***Mindjammer***, although, due to their extended lifespans, many Commonality citizens undergo many **decades** of education before they embark on their first career. See page 38 for more on Commonality education.

TYPICAL CAREERS

These careers are common for members of your culture. You don't have to select one of these if your character belongs to this culture, but you may want to bear them in mind if you're looking to create a "typical" member of your culture.

EQUIPMENT

A general guide to the type of equipment your character may possess. Any specific items of equipment mentioned here are provided to your character automatically.

Commonality Culture

Tech Index: Second Age of Space (T9).

Economic System: Disinterested Resource Allocation.

Traits: Notable (EDU).

Genotypes: Commonality Human, Hominid, Xenomorph, Synthetic.

Memes: *Rapid Social Change Is Dangerous; Humanity Is Transcending; We Are a Light To the Rest of the Galaxy.*

Initial Age: 50 / Physical majority + 30 + 2d6 years.

Ageing: All citizens are freely offered the Longevity augmentation.

Cultural Background Skills: Admin, Informatics, Science.

Background Augmentations: Longevity, Mindscape Implant.

Language: Universal.

Pre-career Education: To age 50 is common.

Typical Careers: Civilian (Commonality), Culture Agent, Sci-Tech, Spacer.

Equipment: Most Commonality citizens have additional augmentations, other equipment is advanced and discreet.

This is the culture which unites the many worlds of Commonality Space. Originating on Old Earth and the Core Worlds, it now incorporates the many populations rediscovered during the Expansionary Era. It includes the cultural contributions of divergent races and species, and worlds which have achieved **Stage Four Cultural Integrity** (page 232).

Characters from the Commonality culture are the norm in Mindjammer, and probably the most comprehensible to 21st century minds. They have the widest behavioural range, an unquenchable self-confidence, optimism, and belief they're doing the right thing, and access to the technology and sophistication to back it up. They are skilled, educated, and expert—but sometimes also naïve and inexperienced. Characters from this culture may not take Streetwise as a background skill.

Core Worlds Culture

Tech Index: Age of 3-Space (T10).

Economic System: Disinterested Resource Allocation.

Traits: Notable (EDU).

Genotypes: Commonality Human, Hominid, Synthetic.

Memes: *The Old Ways Are Best; Status and Reputation Above Everything; The Core Worlds Are the Commonality.*

Initial Age: 50 / Physical majority + 30 + 2d6 years.

Ageing: All citizens are freely offered the Longevity augmentation.

Cultural Background Skills: Admin, Diplomat, Informatics.

Background Augmentations: Longevity, Mindscape Implant.

Language: Universal.

Pre-career Education: By world and often inheritance; 50 years is common.

Typical Careers: Civilian (Commonality), Diplomat, Installation, Spacer (starship crew).

Equipment: Complex and distinctive, status-linked clothing, unusual enhancements.

In many ways, the Core Worlds culture is the "true" Commonality culture—that of Old Earth and the ancient colony worlds of the Old Commonality before the discovery of planing. It's thousands of years old, complex and full of incomprehensible hierarchies and traditions. Many individuals have been enhanced to the extent they may no longer be fully human; most view the chaos and conflict of the Fringe with confusion, fear, and disdain. Characters from this culture may not take Streetwise as a background skill.

Neo-Cultures

Tech Index: Any, usually T4 (Industrial Age) to T9 (Second Age of Space).

Economic System: Variable, often Disinterested Resource Allocation.

Traits: Variable.

Genotypes: Commonality Human, Non-Commonality Human, Xenomorph, Synthetic, Hominid.

Memes: Variable.

Initial Age: Variable, often either physical majority +2D years or physical majority + 30 + 2D years.

Ageing: By neo-culture, most commonly:

T4-T6: Standard.

T7-T9: Longevity 6+.

Cultural Background Skills: Variable, choose 3; Informatics (Mindscape) is very common.

Background Augmentations: Variable (none if T4 or T5).

Language: Varies; can usually speak Universal.

Pre-career Education: By culture.

Typical Careers: Civilian (Commonality), Diplomat, Rogue (entertainer).

Equipment: Culturally distinctive clothing and gear; most neo-cultures allow augmentations (including Mindscape implants).

The neo-cultures, also known as **culture worlds**, are a special phenomenon in Commonality Space. Created from worlds with vibrant cultures, the Commonality uses them as defensive bastions in areas of intense cultural conflict. They share the Commonality's core values, and are **subcultures** (page 228), but are highly distinct, often with strong ethnic definition, unique languages and customs, and an insistence that they're right and everyone else is wrong.

Some neo-cultures are unique, found nowhere else in the Commonality; others derive from ancient Old Earth cultures, in particular the Autumn Cultures which preceded the First Commonality and formed the core of the Great Diaspora.

Abraxas—A Culture World

Tech Index: *T7 with T9 (biologically-based) biology, medicine, genurgy, and biotechnology.*

Economic System: *Barter.*

Traits: *Notable (Animals).*

Genotypes: *Hominids and Xenomorphs.*

Memes: All Life Is One; Adapt Your Body to Your Environment; Distrust Mechanical Technology.

Initial Age: *22 (after 1 term of university).*

Ageing: *Longevity 6+.*

Cultural Background Skills: *Animals, Science, Survival.*

Background Augmentations: *Enhanced Metabolism, Longevity.*

Language: *Universal.*

Pre-career Education: *University education is standard (1 term).*

Typical Careers: *Explorer, Rogue (entertainer), Sci-Tech.*

Equipment: *Almost all inhabitants of this world possess the Accelerated Healing augmentation (page 100) and a living Mindscape implant that only functions with biologically-based Mindscapes, and a version of nanocells that only works with living technology. Residents who travel off world almost always possess a T9 purely biological variform p-suit and one or more near-sentient animal companions that have been modified for various useful purposes. Some who travel off world wear a special interface necklace that allows their biological Mindscape implant to interface with the standard Mindscape, but many do not. See* ***Unusual Equipment*** *(page 116) for further information on these devices.*

Abraxas is a tidally-locked planet whose habitable area comprises most of its daylight hemisphere, except for a large desert at the sunward pole. It's one of several worlds where extreme biotech has become the norm. Originally settled by radical ***Chembu*** *(page 26) who rejected mechanically-based genurgy and the perceived Chembu subservience to the* ***Planetary Intelligence*** *(page 27), its inhabitants regard biologically-based genurgy as morally and practically superior, and refuse to allow the Planetary Intelligence to modify (other Chembu would say enhance) their thoughts. Inhabitants of Abraxas exhibit a vast array of genurgic augmentations, but regard inorganic augmentations, including ones using inorganic nanotechnology, as impure and antithetical to a fulfilling life. They have built a living space elevator, living sensors, and other personal devices that can interface with a user's nervous system through a biological equivalent of nanocells, and even living airplanes, airships, boats, rockets, and submarines. Abraxas possesses a T8 Mindscape based on living processors, which inhabitants access via living interfaces to their nervous systems.*

Because of their beliefs, most of Abraxas is wilderness, but many species have been modified to increase intelligence and to create an ecosystem that is highly stable and tolerant of the presence of several hundred million hominids and xenomorphs. While Abraxas has several hundred small- to medium-sized "living cities" with populations of up to 100,000, most of the population lives as nomadic high-tech hunter gatherers who use the many animals and plants tailored for their use. Living in bands of up to 50 people and communicating via biological Mindscape, they breed and engineer plants and animals using tailored mutagens, while the inhabitants of the cities create new genurgic templates in ***womb pools*** *and* ***gene printers****. Although incapable of starship construction, the inhabitants of Abraxas are in demand for genurgy, high-end terraforming, bioremediation, and biological weapon design, as well as their unique performing animal shows.*

Unanimity—A Culture World

Tech Index: *T9.*

Economic System: *Interested Resource Allocation.*

Traits: *Notable (EDU).*

Genotypes: *Human and Hominids in life support pods.*

Memes: Harmonious Competition; Leaving Your Pod Is Madness; Competition Promotes Greatness.

Initial Age: *50.*

Ageing: *All citizens are freely offered the Longevity augmentation.*

Cultural Background Skills: *Admin, Informatics, Interface.*

Background Augmentations: *Longevity, Mindscape Implant.*

Language: *Universal.*

Pre-career Education: *50 years.*

Typical Careers: *Explorer, Rogue, Security, Spacer.*

Equipment: *Life support pod; see Unusual Equipment (page 116). Almost all members also possess a special ops / black chip (page 105).*

Unanimity is a relic of an experiment that swept through part of the Core Worlds more than three thousand years ago, but mostly vanished within two hundred years. The planet's inhabitants live in life support pods and interact with the outside world solely via Mindscape. Almost 90% of the population exclusively inhabit ***virtualities*** *(page 78) and almost never interact with the physical world; the remaining 10% retains an interest in the physical world, but even then would never consider leaving their life pods, instead interacting via avatars and other drones. Some of Unanimity's inhabitants do wish to see the galaxy, but all but a handful of these intrepid explorers continue to regard the physical world as highly dangerous, if fascinating, and consequently either install their life support pods in cities on other worlds or, more commonly, join a starship crew and experience the worlds they visit via avatar and other drones, while their life support pod remains onboard the starship.*

Unanimity is a peaceful world, and all inhabitants are guaranteed a minimum standard of living, but the culture also celebrates the struggle for status. Hacking the Mindscape is permitted as long as lives are not endangered or Mindscape integrity compromised. Restricting someone's Mindscape access is a crime almost as serious as murder, but Unanimity's inhabitants regard spying, altering virtualities, and reading thoughts and exomemories as good business, especially if you don't get caught…

Characters from Unanimity are infamous as experts in remote ops and hacking, and law-abiding Commonality citizens often regard the world and its inhabitants with suspicion. However, the world is home to several of the Commonality's finest virtuality designers. Traders from beyond the Commonality have recently begun to visit Unanimity, seeking high-end virtualities or skilled Mindscape hackers; since most such experts prefer not to interact directly with the physical world, visitors must meet prospective clients in virtualities, and often disorienting experience as Unanimity virtualities often have simulated physical laws that have little in common with the "real" universe.

Lost Colony

Tech Index: Variable T0-T8.

Economic System: Variable, most often Unregulated or Regulated Money Economy.

Traits: Variable.

Genotypes: Mostly Non-Commonality Human or Hominid; Xenomorph and Synthetic are possible.

Memes: Variable.

Initial Age: 18 / Physical majority + 2d6 years.

Ageing: By Tech Index, most commonly:

T1-T6: Standard.

T7-T8: Longevity 9+.

Background Skills: Variable, choose 3.

Background Augmentations: None unless T6+.

Language: Usually an unknown tongue, sometimes related to an ancient Old Earth language. May know a smattering of Universal, usually with a thick accent.

Pre-career Education: Optional, 1 term.

Typical Careers: Civilian (Outer Worlds), Downtecher, Merchant, Military.

Equipment: Culturally distinctive and often backward clothing and gear; no Mindscape implant, usually no augmentations (depending on tech index).

Out beyond the Commonality Fringe lie millions of stars, and thousands of lost worlds, colonised by slowship during the First Age of Space and waiting for Rediscovery. Most are mired in barbarism or at best pre-industrial cultures, but every so often a lost colony is rediscovered which has achieved or retained technological sophistication, sometimes including slower-than-light interstellar travel.

A character from a lost colony culture is in a unique situation; either his world has only just been contacted, and he represents the vanguard of visitors to Commonality Space; or he's from a world still unknown, arrived in the Commonality by some unknown means, such as smugglers, New Traders, or uncontrolled Fringe World exploratory missions. The Fringe is wide, deep, and porous; sometimes people make it through without the Commonality catching on.

Rediscovered World

Tech Index: Most often T4-T9.

Economic System: Variable.

Traits: Variable.

Genotypes: Mostly non-Commonality Human or Hominid; Commonality Human, Xenomorph, and Synthetic possible.

Memes: Variable.

Initial Age: 18 / Physical majority + 2d6.

Ageing: By Tech Index, most commonly:

T4-T6: Standard.

T7-T9: Longevity 8+.

Background Skills: Variable, choose 3.

Language: Usually unique, perhaps related to ancient Old Earth language; Universal as a second language.

Pre-career Education: Optional, 1 term.

Typical Careers: Civilian (Fringe Worlder), Downtecher (bootstrapper or uplifter), Merchant (New Trader), Military, Rogue, Sci-Tech.

Equipment: Mix of local and Commonality gear, Commonality versions of traditional items or local versions of Commonality equipment; possible access to the Mindscape and enhancements, depending on Tech Index and embargo.

When the Commonality rediscovers a lost colony, it begins incorporating it into mainstream Commonality culture. Values are changed, societies manipulated, and the world made ready to take its place alongside other member worlds. Integration is managed by **SCI Force**, the Security and Cultural Integrity Instrumentality (page 199); from Rediscovery to incorporation into the Commonality, the world is known as a **rediscovered world**.

Rediscovered worlds all began as lost colonies—some recently, others almost two centuries ago. They have a Commonality presence, perhaps including the Mindscape and / or a **Temple of Universal Mind** (page 137), and usually some technological uplift. Not all rediscovered worlds are open to visitors; culturally dangerous or fragile worlds are subject to **embargo** (page 275) or even **quarantine** (page 276), with interdiction measures to ward away trespassers.

Varos—A Lost Colony

Tech Index: *T2.*

Embargo: *+3 (see page 275).*

Economic System: *Confiscation.*

Traits: *Temperature Tolerance (cold).*

Genotypes: *Hominid.*

Memes: Hierarchy Is the Natural Order of the World; Life Is Struggle; Never Show Weakness.

Initial Age: *18.*

Ageing: *Standard.*

Background Skills: *Animals, Melee, Survival.*

Language: *Veroan. May know a smattering of Universal, usually with a thick accent.*

Pre-career Education: *Optional, 1 term.*

Typical Careers: *Civilian (Outer Worlder), Downtecher (barbarian).*

Equipment: *Dagger or blade.*

Varos's ice age is now ending, but the onset of glaciation four thousand years ago destroyed initial hopes of advanced civilisation on this world. Settled five thousand five hundred years ago, the colony initially maintained a T6 civilisation; once glaciation began, its largest cities were abandoned, and food shortages decimated the population. Varos never fell below T2, but has remained there for the last three millennia. The glaciers are now in retreat, but Varos remains a harsh world, ruled by shifting alliances of nobles who all obey an empress and her court in the capital city of Pearl.

Until seven years ago, the inhabitants of Varos looked up at the stars with superstitious awe, recounting legends of how their ancestors had sailed to Varos across the great "star sea". But then, seven years ago, people from the stars arrived. Varos's inhabitants initially greeted the visitors with fear and reverence, but the empress and her nobles soon understood they were people like themselves, but with vast power and strange magics. Fearful of the changes the visitors might bring, the empress made the New Traders who had discovered her world agree to limit any non-medical technologies above T2 to the capital city of Pearl only.

Today, Pearl is the location of a tiny starport and an adjoining interstellar district. Beyond the capital, traders are permitted to sell medicines, and the crew of one ship has even helped establish several clinics. However, the Treaty of Pearl prohibits offworlders from advocating violence or revolution, or openly questioning the social order. Visitors may keep any augmentations, but must disable any implanted lethal weapons. Offworlders may travel freely if they use local forms of transportation. The New Traders are all eager to acquire local art, music, and stories before the Commonality learns of this world and likely imposes an embargo.

However, Varos's inhabitants have not remained passive. As part of the Treaty of Pearl, the empress obtained a rejuve treatment. Now, in direct contravention of her own laws, she has convinced a group of new traders to sell her advanced weaponry so she can easily put down any opposition to her rule. Elsewhere on Varos, a bandit lord has been working with a disaffected noble to kidnap traders to secretly ransom them in return for weapons or other prohibited technologies.

The Rowena Alliance—A Trio of Rediscovered Worlds

Tech Index: *T8 with a growing number of T9 additions.*

Economic System: *Planned Economy.*

Traits: *Notable (EDU).*

Genotypes: *Mixed human and human-appearing hominids.*

Memes: Prove Ourselves to the Galaxy; All Sentients Are Equal; Loyalty to the Alliance Gives Us Strength.

Initial Age: *22 (after 1 term of university).*

Ageing: *Longevity 8+.*

Background Skills: *Engineer, Informatics, Science.*

Background Augmentations: *Enhanced Metabolism, Mindscape Implant.*

Language: *Rowenan; Universal as a second language.*

Pre-career Education: *University education is standard (1 term).*

Typical Careers: *Civilian (Fringe Worlder), Downtecher (uplifter), Sci-Tech, Spacer.*

Equipment: *T8 and some T9 equipment necessary or useful for the character's profession.*

The Rowena Alliance was discovered 47 years ago, when a Commonality event horizon probe (page 171) noticed a large slowship travelling between two nearby star systems. The two homeworlds of the Rowena Alliance are a pair of habitable worlds, each of which orbits one of a pair of binary stars that are roughly 0.05 light years (3,100 AU) apart. The crew of the three slowships that settled this star system 4,700 years ago decided to settle both worlds, naming them Fu Xi and Nü Wa. Maintaining a high tech civilisation proved difficult, but the Tech Index of these two worlds never fell below T5, so they were able to maintain radio contact. For the last 3,100 years the Alliance has been able to regularly send T6 slowships back and forth between its two worlds, despite the fact that journeys typically required almost two years each way. The two worlds remained close, with shared values, including a strong commitment to providing every sentient being with the same opportunities, and an emphasis on social harmony and conformity maintained by social pressure rather than legal force.

The Rowena Alliance initially consisted of Fu Xi and Nü Wa. Seven hundred years ago the worlds attained T7 and became able to make the journey between them in less than a month. Soon thereafter, they set their sights on a star system a parsec away, and for the last six hundred years have slowly been colonising a world there they've named Jurla, almost two and a half light years away.

The Commonality made first contact with one of the Alliance's primitive slowships before visiting all of its worlds, which were shocked and dismayed to discover that the Commonality had been travelling faster than light for more than a century, while they had been using ships no better than the ones their ancestors had first settled their star system with millennia ago. Over the last few decades, this dismay has been replaced by a desire to prove themselves to the galaxy, and the Alliance has recently completed its transition to a full T8 culture, and is now constructing several planeships using T9 components provided by the Commonality.

The Sentient Alliance

Tech Index: Largely T7 (First Age of Space) and T8 (Age of Ubiquitous Intelligence), with T9 provided by Commonality services.

Economic System: Variable, but Regulated Money Economy is most common.

Traits: Notable (EDU).

Genotypes: Mostly Xenomorph; some Non-Commonality Human and Hominid populations; very few Synthetics.

Memes: *We Must Find Our Own Way; Remain Free at Any Cost; Free All Xenomorphs From Oppression!*

Initial Age: Physical majority + 2d6.

Ageing: Longevity 7+.

Background Skills: Athletics, Carouse, Diplomat.

Background Augmentations: Longevity and Mindscape Implant are common on T8+ worlds.

Language: Universal.

Pre-career Education: Optional, 1 term.

Typical Careers: Civilian (Fringe Worlder), Diplomat, Explorer, Merchant (New Trader), Rogue (entertainer).

Equipment: Longevity (T8+ only), Mindscape Implant.

In 160 NCE (33 years ago), pro-Venu states instigated anti-xenomorph pogroms on numerous Fringe worlds, which rapidly became a proxy conflict—the **Xeno Wars**. The wars ended 22 years ago in 171 NCE, when a political alliance between pro-xenomorph, pro-Commonality worlds arose which was strong enough to defeat their opponents. This **Sentient Alliance** is the first xenomorph state, a buffer between the Commonality and the Venu. It's a "liberated xenomorph" culture, no longer a subculture but still very much under the Commonality's wing. It's one of the larger Successor States, and the only interstellar xenomorph culture in Human Space (although there are xenomorph cultures on many individual worlds).

The Sentient Alliance is a polity of highly motivated, mostly xenomorph citizens sponsored by the Commonality.

Most inhabitants are connected to the Mindscape, and the polity receives Commonality weapons and technological assistance. Some say the Commonality is assuaging its guilt for millennia of xenomorph mistreatment; while more than a few residents of the Sentient Alliance point out that on many of the Commonality's Core Worlds xenomorphs are still either property, or at best second class citizens.

Most residents of the Sentient Alliance are eager to prove to the galaxy that xenomorphs are equal or superior to any other sentient. Minority factions resent humans and hominids, but most recognise that their alliance with the Commonality is vital, and that trade and other peaceful interactions with human and hominid polities reduces the chances of a new outbreak of war.

Venu

Tech Index: T7 (First Age of Space) with reverse-engineered T9 (Second Age of Space) planing engines.

Embargo: Commonality Quarantine.

Economic System: Confiscation.

Traits: Any one trait and also at least one * trait.

Genotypes: Mostly Non-Commonality Human; some Hominid populations. No Xenomorphs or Synthetics.

Memes: *There Is No God but Venu; Obey the Technopriests; The Ends Justify the Means.*

A Note on Languages

*The Commonality speaks a language known as **Universal**, also called Unilingua or Galingua. It's an amalgam of Anglic, Hispanian, and Shinean, with a wide vocabulary derived from earlier Old Earth tongues. Most Commonality worlds speak Universal as their second language. It has a standard spoken and written form, and also translinguistic stages of greater semantic efficiency and requiring greater conceptual facility known as **gestalt language** (page 105), often used by sentiences enhanced beyond human norms.*

Since Expansion and the establishment of culture worlds throughout the Commonality, ancient Old Earth tongues predating Universal have made a comeback. Culture worlds plunder all periods of history where there's a record, and there are worlds speaking Classical Latin, Enlightenment French, Post-Ruin Frankite, and Diaspora Yarpeen, all co-existing in the Commonality's cultural mélange. Universal continues to be vital.

Other languages include Venu, the languages of the Successor States, and various alien languages, including the multi-sensory "language" of the Planetary Intelligence, predictably known as Chembu. Thankfully, translator sentinels and interpreter synthetics help make this cacophony intelligible!

Initial Age: 18.

Ageing: Standard.

Background Skills: Gun Combat, Recon, Tactics.

Background Augmentations: Any two additional traits, the results of z-radiation (page 153) mutation.

Language: Venu; some may speak Universal as a second language.

Pre-career Education: University and military academy are both possible.

Typical Careers: Venu Executor, Venu Technopriest, Venu Trooper (not included in this book).

Equipment: Venu mask, Venu armour, Venu disruptor.

The Venu are a lesson in what can happen when Rediscovery goes wrong—and one the Commonality has been trying to learn from. A lost colony from the distant Orion Cluster, they were contacted by Old Earth twice during the First Age of Space (each message taking three thousand years there and back). There was no inkling of the trouble that would face the contact team which visited their homeworld of Psi Orionis in the early years of Expansion.

The Commonality contact ship never returned, and eighty years ago a human species calling themselves the Venu exploded out of the Orion Cluster in a frenzy of destruction, using a dangerously unstable FTL drive reverse-engineered from Commonality planing engines and embroiling the Rim Sector in a terrible war. Even now little is known about the Venu; they're human supremacists, but many bear terrible mutations and have strange abilities. Their xenophobic culture worships a "god-emperor" and deifies technology. Thankfully it's less advanced than the Commonality, which is the primary reason the Commonality was able to stop and then turn back the Venu invasion.

Venu often wear masks of varied designs; the subtleties are not understood, although it appears to be a recent custom. Captured Venu spies have been found with transplanted faces stolen from Commonality citizens. Rumours suggest that some Venu possess "psionic" abilities, replicating some Commonality Mindscape abilities without technology; yet Commonality consensus suggests humans lack the capacity to develop such abilities, even with genurgic modification. A link has been theorised to the "Cult of Radiant Darkness", an elite Venu techno-priesthood, although others believe the term "radiant darkness" refers to the debilitating z-radiation emitted by unshielded Venu "dirt drives".

Venu society seems unremittingly hostile, and in the throes of violent change; raids across the Commonality-imposed **Quarantine Zone** (page 335) are constant. There seems no prospect of negotiated peace with these strange, alien humans.

Playing Venu Characters

Venu culture is described above primarily to help players and referees better understand them as opponents. However, it's also possible to play characters who were born as Venu. The rules in **Mindjammer** *lack space to deal with Venu careers and life among the Venu in detail, but playing characters who were born among the Venu and raised on the Fringe or in the Commonality is definitely possible. A Venu transport ship may have crash-landed on a low tech world on the Fringe, leaving a Venu child or adolescent to be raised there. Alternatively, perhaps the Commonality or some other space-faring polity discovered a crippled Venu starship, where the only survivor was a child or adolescent. Or the character might be the only survivor of a raid on a Venu settlement in the Fringe; or was an adolescent or young adult raised among the Venu, but fled for some reason. The Commonality is eager to allow the handful of Venu refugees to join, once psych tests prove that the individual is not a spy or saboteur. Playing characters who were adolescents when they left the Venu (for whatever reason) can be especially interesting; the character will know the Venu language and have at least an adolescent's understanding of the culture, while also possibly possessing Venu augmentations, mutations, and background skills.*

Successor State Cultures

Tech Index: Largely T7 (First Age of Space), with T8 (Age of Ubiquitous Intelligence) and T9 (Second Age of Space) tech available by embargo running / smuggling, or via the Venu.

Economic System: Variable.

Traits: Variable.

Genotypes: Mostly Non-Commonality Human and Hominid populations. Very few Synthetics and Xenomorphs.

Memes: Variable.

Initial Age: Physical majority + 2d6.

Ageing: 8+.

Background Skills: Variable, choose 3.

Background Augmentations: Mindscape implants are moderately common, as is longevity among T8+ cultures.

Pre-career Education: Usually optional, 1 term.

Typical Careers: Variable.

Equipment: Variable.

The Successor States comprise the dozens of small polities and independent worlds that exist between the Commonality and the Venu Q-Zone. Some, like the Sentient Alliance, are client states of the Commonality or the Venu; others have loose alliances with one or the other; and a few are fiercely attempting to hold onto their independence. Currently, the Commonality and the Venu are attempting to increase ties with various Successor states and to destabilise those allied with the other.

The Zarus Dominate—A Successor State Culture

Tech Index: *T7 (First Age of Space).*
Economic System: *Interested Resource Allocation.*
Traits: *Notable (Deception).*
Genotypes: *Non-Commonality Human; some synthetics treated as property.*
Memes: Humankind Loves Domination; The Venu Show the Way; Security Through Submission.
Initial Age: *18.*
Ageing: *8+.*
Background Skills: *Deception, Persuade, Stealth.*
Background Augmentations: *Usually none; possible augmentations to help adapt to homeworld.*
Language: *Zarusian.*
Pre-career Education: *Optional, 1 term.*
Typical Careers: *Civilian (Fringe Worlder), Downtecher (Bootstrapper), Military (Soldier), Security (Agent).*
Equipment: *T7 (TL11) portable computer, T7 (TL10) mobile comm.*

A largely pro-Venu Successor State located predominantly in the Outremer subsector, the Zarus Dominate is a harsh, oppressive culture characterised by dictatorial government and a post-feudal mentality. The Dominate uses Venu planing technology, and almost every world hosts delegations of Venu "advisers".

Creating Your Own Culture

See **Chapter 11: Cultures** for creating new cultures. You should also create at least one world belonging to your new culture, using the guidelines in **Chapter 13: World Creation.**

GENOTYPE

Your character's genotype represents his species, body plan, traits, and other unusual abilities. It also helps determine his chronological and physical ages (which may be different if your character has had longevity treatments), and provides suggestions for traits, careers, and augmentations. Pick one genotype from the following list, or create your own.

COMMONALITY HUMAN

Physical Majority: 14 years, begin career or pre-career education at 18.

Lifespan: 120 standard years without longevity; indefinite with longevity.

Ageing: Even without access to longevity or rejuve, Commonality humans don't make ageing rolls until 42 years of age (at the end of their sixth career term). They also gain a DM+4 on ageing rolls.

Traits: Notable (EDU) (from culture).

Typical Careers: As culture.

Humans are the standard genotype of the Expansionary Era. Except for longevity and ethnicity, Commonality humans are physically little different from our own time.

NON-COMMONALITY HUMAN

Physical Majority: 14 years, begin career or pre-career education at 18.

Lifespan: 100 standard years without rejuve or longevity; unlimited with rejuve or longevity.

Ageing: As described in the ***Traveller Core Rulebook*** (page 47), but with a DM+1 due to genurgic modification in the distant past. Characters from homeworlds with T6+ gain an additional DM+2 to ageing rolls due to advanced medical treatment.

Traits: As culture, all gain one free trait.

Typical Careers: As culture.

The End of Sexual Dimorphism

One consequence of genurgic enhancement is the breaking of the link between sex and reproduction. Many worlds, especially in the Core Worlds, now grow new Commonality citizens entirely in vitro*, although some citizens still voluntarily become pregnant as a "life experience". This has reduced the importance of sexual dimorphism in personal identity and family structures. While many Commonality citizens still adhere to male or female gender identities, just as many do not, adopting more neutral or asexual identities depending on culture and inclination. Nor is physical sexual identity fixed: genurgic regimes allow Commonality citizens to freely shift between biological sexes, becoming male, female, both, or neither, according to preference or temporary inclination. Switching between biological sexes isn't a quick process—it takes a little over a year—but the opportunity to experience life from a wide variety of biological sex standpoints is regarded as lightly as the choice of fashion, occupation, or other enhancements. This is not the case on rediscovered worlds, where a more traditional, largely binary sexual dimorphism persists (although multiple genders are frequently encountered). This simple modification in human identity is perhaps one of the biggest causes of cultural conflict in the Expansionary Era. In game terms, players have a high degree of freedom when selecting their character's sex. Additionally, characters may modify their biological sex, as long as they have access to genurgy and wait the year or so for the enhancement to complete or are willing to spend a couple of weeks recovering from advanced nanosurgery.*

Extreme Longevity

Commonality humans routinely live many centuries. Until the Expansionary Era, life spans were set by the Mortality Statutes at 500 years. Since then, considering the vastly increased scope for accidental death facing Commonality citizens, most worlds have rescinded the Statutes and there is now no legal maximum to how long you can live. Conservative worlds (especially in the Core Worlds) may frown on the "new-fangled" indefinite life spans and quietly continue traditional euthanasia at 500, but the Commonality recently celebrated its millionth citizen to reach 700 years old, and bookmakers are taking bets on how long people will live before accident takes them.

This is changing societies immensely. Commonality citizens now routinely spend 25 to 30 years in education, not beginning their first careers until they are 50 years old. On Fringe Worlds, the Commonality is pragmatic about its longevity treatments, aiming to mitigate culture shock. Most contacted worlds have limited access to advanced medicine, and few of them have been profoundly affected by longevity.

For more on extremely long-lived characters, see "Pre-Career Education in the Commonality" on page 38 and "Ageing, Expertise, and Longevity" on page 78.

Hominid (Homo Variens)

Hominids derive from human stock which through genurgy or genetic drift have become separate species or subspecies. They're the most numerous form of "alien" in ***Mindjammer***—and certainly the ones who interact most with humans. Some are far removed from their human ancestors. Four hominid species—the Javawayn, Chembu, Hydragand-Dezimeer, and Foliates—are introduced below. All hominds possess up to three traits for free, in addition to the single free cultural trait all characters possess. Any traits marked with an asterisk (*) do not count against the traits hominid characters gain for free. Characters may possess any number of * traits.

CHEMBU

The Chembu are genurgists—specialists in genurgic enhancement—and the managers of the Chembu Genurgy Corporacy. Their homeworld is an oceanworld inhabited by a bizarre organic global Mindscape analogue, which welcomed the original colonists (after some horrific initial misunderstandings) into its "mass mind". Known as the **Planetary Intelligence,** or just **Chembu**, it's connected to the Mindscape, although its thoughts are too alien for most people. Before the colonists' arrival, the Planetary Intelligence lived by genurgically modifying its environment. The Chembu hominids now have a symbiotic relationship with it, a phenomenon with significant philosophical ramifications. It has sensory, communication, and manipulative organs best described as "psionic", whose powers the Chembu have been unable to replicate. The Chembu themselves are genurgically-enhanced waterworld dwellers. They appear "streamlined", with hairless, dolphin-like skin, lungs and gills, and other modifications.

Physical Majority: 14 years, begin career or pre-career education at 18.

Lifespan: 120 standard years without longevity; indefinite with longevity.

Traits: Amphibious, Enhanced Smell, Night Vision.

Typical Careers: Civilian (Commonality), Diplomat, Merchant, Sci-Tech (genurgist or researcher).

Differential Bioforms—The Weirdness of the Core

Alternate body plans and extreme divergence from the human norm is more common in the Core Worlds than out on the Fringe, a consequence of millennia of social development and increasing complexity and sophistication (some would say decadence). The following are some alternatives to the standard human body plan, with indications of the enhancements involved. Individuals can be encountered out on the Fringe; in the Core, you can find whole cities or even worlds where these bioforms are the norm.

***Autotrophs:** Individuals with the ability to generate their own nutrition, either from sunlight (photosynthesis), heat sources, proximity to energy fields, implanted ZIP cells, or other sources. These characters possess the Autotroph augmentation (page 100).*

***Extremorphs:** Individuals tailored for extreme environments: vacuum, very high gravity, corrosive or toxic atmospheres, high pressure environments, and so on. These characters possess the Amphibious, Armour, Atmosphere Requirements, Vacuum Tolerant, or Wings traits (see **Traits**, page 34).*

***Integrates:** Individuals with mechanical rather than genurgic enhancements, to the extent they are now mostly non-organic. These characters often possess the Armour and Vacuum Tolerant traits as well as the Autotroph (T8) and Variform Body augmentations. The most extreme consist of a brain and spinal cord in a non-organic variform body.*

***Neutrals:** Individuals without biological sex, including the influential nootropes of Old Earth, whose word is life and death, and the Neumanners of Von Neumann's world, who exist only to serve the Tribune Sentience. These characters often possess the Autotroph augmentation and always possess the Cosmetic Enhancer augmentation.*

The Planetary Intelligence

The Planetary Intelligence is the most remarkable being ever encountered by humankind. The biosphere of the world of Chembu exhibits emergent properties which aren't reducible to its constituent organisms; in effect, the whole planet is a single organism, alive and conscious in ways which its constituents—including the genurgically modified Chembu hominids—cannot comprehend. All organisms on Chembu are attuned to the emergence and maintenance of the Planetary Intelligence—every plant and animal analogue acts as though it was an organ or computing constituent contributing to the Intelligence's whole. Commonality scientists theorise that's exactly what they are—that, at some point in the distant past, the predecessors of the Planetary Intelligence reconfigured all life forms on their planet to act as nanomachine assemblies, giving birth to a single, planetwide organism. It's teaching the Chembu how to do this. And it appears to have a sense of humour…

Bioships

The Chembu aren't the only "children" of the Planetary Intelligence. Since First Contact, the Planetary Intelligence has worked with the Commonality to create the Bioship Fleet—interstellar vessels comprising mechanical components mixed with organic material hybridised from human and Chembu stock.

The bioships are amongst the biggest of the Commonality's citizens: vast bio-mechanical vessels as much as ten kilometres long. The first bioship, Planet Seed 1, with an incept date of 77.244, is now over 115 years old. It's 10.5 kilometres from end to end, and still growing…

JAVAWAYN

The Javawayn are low-gravity hominids with no known homeworld. Inhabitants of gigantic spacefaring vessels known as star cities, they have little experience of planetary life. They're short, emaciated humanoids with large heads, prehensile feet, and brittle bones, highly susceptible to blows, kinetic weapons, and standard gravity and above. Dwelling

Ethnicity

Old Earth eliminated ethnic diversity millennia ago, resulting in a homogenous population where personal appearance is a matter of fashion and preference. Out in the "Ten Thousand Worlds", however, every rediscovered world has its own ethnic variations, developed over millennia of isolation. Further, the Commonality encourages "culture worlds" with robust cultures and ethnicities often derived from Old Earth history. Today's Commonality teems with ethnic diversity—some old, some new.

in 0.3G or less, they're known throughout the Commonality; even before the Expansionary Era they had a relativistic interstellar drive, now mostly updated with Commonality planing engines, although the more traditionalist star cities still travel slower-than-light. They journey throughout the Fringe and Core Worlds, providing excellent shipyards, luxury interstellar hotels, and "cruise ships". Javawayn venturing briefly into environments higher than 0.3G wear grav harnesses. The Javawayn operate the Javawayn Industries corporacy (page 202), manufacturing grav suspensors and hulls for zero-G habitats, starships, orbitals, and plateworlds.

Physical Majority: 14 years, begin career or pre-career education at 18.

Lifespan: 120 standard years without longevity; indefinite with longevity.

Traits: Notable Athletics (dexterity), Prehensile Feet, * Small (-1), * Weak (END).

Typical Careers: Civilian (Commonality), Merchant, Spacer.

HYDRAGAND-DEZIMEER

Hydragand-Dezimeer are two radically divergent hominid subspecies locked in a strange symbiosis. Originally from a lost colony located in the Xi Auri Perseus protoplanetary disk, they appear to have undergone extreme genurgic enhancement millennia ago. The Hydragand are particle harvesters with stony vacuum-sealed carapaces, who float free in the belts, collecting hydrogen and other molecules in naturally-generated magnetic fields and returning them to the Dezimeer—large, slow-moving metabolisers dwelling beneath magnetic sheaths on the surface of planetesimals. The Dezimeer then process some of these materials via complex metabolic activities and incubate new generations of Hydragand. Their "technology" is bizarrely organic—almost agricultural.

On first contact, it was almost impossible to believe the Hydragand-Dezimeer were hominids at all. These exotic *homo variens* are now found throughout Commonality Space in asteroid belts and protoplanetary disks; the Morbius Metals corporacy has even launched a class of mining vessels tailored to their needs. Hydragand characters are created like any other; Dezimeer should be created either as NPC allies for Hydragand characters, or be created as synthetic installation characters that can never become mechanicals, organics, or starship sentiences. Dezimeer are usually ship-bound, using avatars for non-ship activities.

Physical Majority: 14 years, begin career or pre-career education at 18.

Lifespan: 100 standard years without longevity; indefinite with longevity.

Traits:

- **Hydragand:** *Armour (+8), IR/UV vision, Radiation Tolerance, Vacuum Tolerance+, Unique Trait (inborn equivalent of T8 (TL 14) thruster pack, see **Traveller Core Rulebook** (page 96), but with an acceleration of only 0.03G)*[1].
- **Dezimeer:** *Armour (+5), IR/UV vision, Large (+1), Notable (INT), Radiation Tolerance+, * Slow (-4), Vacuum Tolerance*[1].

Typical Careers: Explorer, Spacer.

[1] *This trait must be paid for with a characteristic point or benefit roll.*

FOLIATES

The Foliates are hominids originating in the Foliate Hierarchy sector but now dispersed throughout Commonality Space wherever "vegetable intelligences" (exointelligences based on plant-analogue life forms) are found. They have a mystical world view known as Tree and Leaf, Root and Branch, which strays precariously close to the Commonality prohibition on religion.

Foliates appear mostly human, except for their prehensile feet and greenish skin, veined with a black tracery. They have an ability to communicate with many vegetable intelligences by touch. They travel through space aboard vast **tree ships**, STL vessels which are also plant-analogue exointelligences and which have the appearance of a terrestrial tree-analogue several hundred metres long with its own atmosphere pocket. They usually have a gravity field of 0.3G to 0.5G; T7 tree-ships have low acceleration, but T8 and T9 vessels have organic and genurgic gravity engines and ZIP cells respectively.

Foliates travel through 2-space using **forest ships**, which are essentially FTL tenders for tree ships which have been developed since Commonality contact.

Foliates use many organic devices genurgically engineered from plant-analogue life forms, including the motile carnivorous **cryptomeres**, which are a combination pet / servitor / bodyguard. These tend to be highly efficient, however, and can rapidly overwhelm fragile biospheres, and are therefore deployed sparingly.

Physical Majority: 18.

Lifespan: 120 standard years without longevity; generally have Rejuve available.

Traits: Notable (Athletics: dexterity); Prehensile Feet; Unique Sense (Treespeech); Unique Trait (T7 Autotroph).

Typical Careers: Explorer, Sci-Tech, Spacer.

Xenomorph

Humanity has always looked to the animal kingdom for companionship and aid, domesticating species as desired. For millennia, the Commonality has created animal companions with human-like intelligence and fully or partially humanoid body plans: the **xenomorphs**. Xenomorphs were traditionally considered property under Commonality law. The Expansionary Era, with thousands of rediscovered xenomorph and hominid worlds, upended these rules, and xenomorphs are in a legal limbo, subject to local custom. Xenomorph communities exist on the edges of Commonality society, doing menial jobs, avoiding the attentions of their often arbitrary creators; yet individual humans often accord xenomorphs equal status in their families. Some lost colony worlds (often hominid ones) accept xenomorphs as equal partners; others (usually with little experience of diversity) see them as animals or even "abominations". The "Xenomorph Question" is a burning issue for the Evolutionary Ministry, and xenomorphs travelling the Commonality face an unpredictable reception, with some worlds seeing them as ordinary visitors, and others treating them as second class citizens or property.

Xenomorph characters are uplifted animals, and vary in appearance from nearly completely animal to almost entirely human. Known as **genotype divergence** (GD), this variation ranges from being almost indistinguishable from the original animal, to being almost indistinguishable from human. Creating xenomorph characters that are almost indistinguishable from humans is little different from playing a particularly human-like hominid, and players should create the character using those rules. Playing xenomorphs that are not at least somewhat humanoid is outside the scope of these character generation rules. Xenomorphs created using the rules below range from appearing as somewhat humanoid animals to appearing as humans with at least a few animal features, like a cetacean that appears human in dim lighting, but possesses obvious cetacean features such as rubbery grey skin, blowhole, and streamlined physique.

Before the Expansionary Era, xenomorphs had no access to any longevity treatments, and had tragically short lives. Since the Xeno Wars (page 195), the situation has been chaotic, but Sentient Alliance scientists have developed longevity and rejuve treatments for all xenomorphs who want them. Outside the Alliance, many xenomorphs remain downtrodden, resentful, even rebellious.

CREATING XENOMORPH CHARACTERS

Xenomorphs who do not outwardly appear identical to ordinary humans can have a maximum of three traits either from their culture or from the appropriate xenomorph list below for free, and must take at least one trait from the appropriate xenomorph list below. If any traits are listed as mandatory, you must take this trait to play that type of xenomorph. Any traits marked with an asterisk (*) do not count against the three traits xenomorph characters gain for free.

Xenomorphs may suffer prejudice on worlds and in polities which regard their kind as either subhuman or monstrous. In such cases, xenomorph characters suffer a Bane on all social checks when interacting with people who have significant prejudices against their kind. Players are free to create xenomorphs based on other animals, but should work with the GM to decide appropriate traits.

AVIANS AND REPTILIANS

Physical Majority: 14 years, begin career or pre-career education at 18.

Lifespan: 90 standard years without rejuve or longevity; unlimited with rejuve or longevity.

Ageing: As described in the ***Traveller Core Rulebook*** (page 47), Characters from homeworlds with T6+ gain an additional +2 to ageing rolls due to advanced medical treatments.

Common Avian Traits:

- *Enhanced Sight.*
- *Fast Metabolism (+1 or +2).*
- *Flyer.*
- *Gliding (maximum of slow).*
- *Heightened Senses.*
- *Notable Athletics (dexterity).*
- *Notable DEX.*
- ** Small (-1).*
- ** Weak END.*

Common Reptilian Traits:

- *Armour (+1 or +2) (scales).*
- *Camouflaged.*
- *Enhanced Smell.*
- *IR/UV Vision.*
- *Natural Weapons (+1 or +2).*
- *Notable Athletics (dexterity).*
- *Notable DEX.*
- ** Slow Metabolism (-1 or -2).*
- *Temperature Tolerance (hot).*

CANIDS AND FELINES

Physical Majority: 10 years, begin career or pre-career education at 14.

Lifespan: 45 standard years without rejuve or longevity; indefinite with longevity.

Ageing: As described in the ***Traveller Core Rulebook***

(page 47), but with ageing rolls beginning at 26 (at the end of their third career term). Also, use the character's total number of terms x 2 as a negative DM on this table. Characters from homeworlds with T6+ gain an additional +2 to ageing rolls due to advanced medical treatments.

Common Canid and Feline Traits

- *Enhanced Smell.*
- *Fast (+1 or +2).*
- *Fast Metabolism (+1 or +2).*
- *Heightened Senses.*
- *Natural Weapons (+1 or +2).*
- *Night Vision.*
- *Notable DEX.*
- *Partial Bipedalism.*

CEPHALOPODS

Unlike other xenomorphs, cephalopods are created from invertebrates and remain invertebrates. However, many cephalopods gain a hydrostatic "skeleton" that enables them to use some of their limbs for walking on land in standard gravity, while still retaining the ability to be fully flexible in aquatic or low gravity environments. environments.

Physical Majority: 10 years, begin career or pre-career education at 14.

Lifespan: 45 standard years without rejuve or longevity; indefinite with longevity.

Ageing: As described in the ***Traveller Core Rulebook*** (page 47), but with ageing rolls beginning at 26 (at the end of their third career term). Also, use the character's total number of terms x 2 as a negative DM on this table. Characters from homeworlds with T6+ gain an additional +2 to ageing rolls due to advanced medical treatments.

Common Cephalopod Traits

- *Amphibious.*
- *Camouflaged.*
- *Enhanced Smell.*
- ** Invertebrate (mandatory trait).*
- *Night Vision.*
- *Notable Athletics (dexterity).*
- *Notable DEX.*
- ** Slow (-1 or -2) land only.*
- *Tentacles (mandatory trait).*

CETACEANS, PITHICINES, AND URSOIDS

Physical Majority: 14 years, begin or pre-career education at 18.

Lifespan: 75 standard years without rejuve or longevity; indefinite with longevity.

Ageing: As described in the ***Traveller Core Rulebook*** (page 47), Characters from homeworlds with T6+ gain an additional +2 to ageing rolls due to advanced medicine.

Common Cetacean Traits

- *Amphibious (breath-holding).*
- *Armour (+2) (blubber).*
- *Large (+1).*
- *Notable END.*
- ** Poor Manipulators.*
- ** Slow (-1 or -2) land only.*
- *Sonar.*
- *Temperature Tolerance (cold).*

Common Pithecine Traits

- *Large (+1) or Small (-1).*
- *Notable Athletics (dexterity).*
- *Notable STR or Notable DEX.*

Common Ursoid Traits

- *Armour (+2) (thick hide and fur).*
- *Enhanced Smell.*
- *Heightened Senses.*
- *Large (+1).*
- *Natural Weapons (+2) (claws).*
- *Notable END.*
- *Notable STR.*
- *Partial Bipedalism.*
- *Temperature Tolerance (cold).*

Typical Career (for all xenomorphs): Civilian (Fringe Worlder), Merchant, Rogue (entertainer).

Synthetic

Synthetics are artificial life forms, ranging from entirely mechanical to entirely biological, although the distinction is often blurred; the key is that synthetics are made, not born. Commonality synthetics are as intelligent as they need to be: intelligence is easily created, and synthetics with higher than human intelligence operate starships, space stations, habitats, and even entire worlds. Your synthetic character is an **eidolon**, with a personality derived from a **thanogram**, the memory and personality engram of a deceased individual stored in the Mindscape (see **Chapter 7: The Mindscape**). Eidolons are Commonality citizens; they're most definitely not the same person as the original whose thanogram they derive from, but are instead imperfect copies with many shared memories, new and unique individuals in their own right. Many eidolons revere their source personalities as "parental" figures, and some even display religious feelings. Synthetics usually hail from the Commonality culture, although some neo-cultures support them. Rarely, synthetics may come from advanced lost colonies or rediscovered worlds.

Synthetics come in three types: **mechanicals**, **organics**, and **installations**. Each type is defined by the nature of the body their core corpus occupies. Unlike biological sentient creatures like humans, synthetics can switch bodies, even to the extent of a mechanical becoming an organic or an installation, or the reverse, but this process requires a lengthy and often somewhat traumatic adjustment period, where the synthetic learns to occupy and use an entirely different body. Many synthetics repair their bodies but never entirely replace them, and almost none

Basics

Not all synthetics are eidolons. For less demanding roles, like sentient weapons, vehicles, industrial equipment, and the micro-sentiences in EECU credits, simple, mass-produced personalities known as ***basics*** *are sufficient. Basics aren't Commonality citizens: they're "blank-born", created without memories, and are effectively highly sophisticated machines. Basics begin rudimentary mental development after their incept dates, but rarely develop complex personalities, and are carefully screened for deviations from acceptable norms.*

change bodies more than once or twice a century.

Traits: All synthetics gain the Photographic Memory trait and possess the equivalent of a Mindscape implant. In addition, synthetics do not age. A successful longevity roll allows the synthetic to become 50 years older and gain the listed skills and other benefits, but they do not require any intervention to prevent ageing.

MECHANICALS

Mechanicals are predominantly or entirely composed of inorganic materials, powered by zero point cells. They look like the classic robot, although strictly speaking a mechanical is an eidolon and a robot is a basic. Generally humanoid or vehicle-shaped, mechanicals are employed for ruggedness and endurance, and include attack droids, hazmat or industrial processing synthetics, and alien environment explorers.

Special Rules: A humanoid mechanical character has the same characteristics and skills as a human character, but also has some very important differences. Mechanicals do not need to eat, drink, or breathe, and can easily and comfortably exist and work underwater or in vacuum. In addition, they lack muscles, and their servos and motile fields never become tired. As a result, they automatically succeed at all Athletics (endurance) checks, even if they do not possess the Athletics skill. Finally, they do not heal any damage unless they possess a mechanical version of the Accelerated Healing augmentation, and they require the Mechanic skill rather than the Medic skill to repair any damage. Mechanicals can use variform design (page 92) by acquiring the Variform Body augmentation (page 104). Finally, outside of the Commonality, a number of cultures consider all synthetics to be clever machines little different from basics, or abominations that either trap human souls or are plotting to exterminate all biological life. As a result, mechanical characters suffer a Bane for all social checks when interacting with people who have significant prejudices against their kind.

Physical Majority: 4 years, begin career or pre-career education at 5.

Lifespan: Indefinite.

Traits: Fast Metabolism (+3), Photographic Memory.

Typical Careers: Civilian (Commonality), Explorer, Military, Sci-Tech.

ORGANICS

The term "organic" is often used to refer to naturally-born sentient beings as well as synthetics, though thanks to in vitro reproduction in the Commonality the distinction isn't always clear. Properly speaking, organics are synthetics with a majority of organic components; they may have varying body plans, and are less rugged than mechanicals. They include multi-service synthetics such as domestics and sanitationals, and those tasked with interpersonal duties. Some ships choose to use organic avatars.

Special Rules: Organics often consist of a living, often humanoid body with a durable core corpus located in the individual's head or chest. Rules for creating organic synthetics are largely identical to those for playing human characters. They must have food, water, and air to keep their bodies alive, and their bodies heal like any other living creature. Prior to the development of advanced T8+ sensors, the only way to tell the difference between an organic synthetic and any other biological creature is a detailed medical examination and even at T8+, only a medical exam or scanning the individual with a densitometer will reveal their true nature.

The most important difference between a biological sentient and a synthetic organic is that destruction of the individual's body does not necessary kill it. A synthetic organic's core corpus is always well protected by advanced armour. Usually only a deliberate attempt to destroy the core corpus or the use of overwhelming force will harm it. Once recovered, a synthetic's core corpus can be placed in a new body, which could be a mechanical, organic, or installation. However, like all other synthetics, organic synthetics develop a deep psychological connection to their bodies, and changing bodies is a traumatic experience that requires a minimum of several months of therapy to recover from.

Physical Majority: 10 years, begin career or pre-career education at 12.

Lifespan: Indefinite.

Traits: Photographic Memory.

Typical Careers: Civilian (Commonality), Diplomat, Merchant, Sci-Tech, Security.

INSTALLATIONS

Installations are large-scale synthetics like starship sentiences, node minds (inhabiting global Mindscape instances), and corpuses (operating buildings). Installations sometimes use **avatars** (page 77) to interact more naturally with other sentient beings.

Installations and Careers

*In addition to the Installation career, synthetic characters who are installations can also pursue other careers. These careers are limited to the following: Diplomat, Explorer, Merchant, Military (marine), Sci-Tech, Security, or Spacer (belter). Installations who pursue any of these careers automatically gain an **avatar** (page 77) at the cost of either one extension or benefit roll (you can choose which one to give up), and perform their duties via Mindscape and avatar. Except for a few careers like Diplomat or Merchant (cartel member), where the character can inhabit an embassy or cartel headquarters, the other careers require the character to have a mobile form, typically a sentient starship.*

Special Rules: Installations only possess 4 characteristics: DEX, INT, EDU, and SOC. Moreover, DEX does not refer to physical dexterity, but rather to how carefully the installation can perform tasks depending primarily on physical accuracy and precision. Node minds and corpuses aren't suitable characters for ***Mindjammer*** campaigns involving interstellar travel, so most installation characters will be starship sentiences.

To determine the effects of damage if someone attacks an installation character, use the rules for damaging starships in the ***Traveller Core Rulebook*** (pages 158-159). However, even if the starship is wrecked or otherwise rendered inoperative, unless it is blown up or otherwise deliberately destroyed with high-powered weapons, the character's core corpus survives, protected by a stasis field that activates if the ship is destroyed. Starship sentiences can use variform design (page 92), allowing them to reshape their ship or even to temporarily transform it into a building or another type of vehicle.

Outside of the Commonality and its closest allies, most people have had little contact with sentient installations. Many of these people consider them to be nothing more than clever machines and may become afraid of an installation when they discover it is truly sentient. As a result, installation characters suffer a Bane for all social checks when interacting with people who have significant prejudices against their kind.

If a synthetic installation ever transfers their core corpus into a body and becomes a mechanical or organic, you must immediately generate the character's STR and END. This transference can happen either during character generation or during play, but it always requires a roll on Table 3-106: Eidolon Crisis (page 76), since it's a difficult and somewhat traumatic process that requires several months to recover from.

Physical Majority: 4 years, begin career or pre-career education at 5.

Lifespan: Indefinite.

Traits: Fast Metabolism (+3), Photographic Memory.

Creating a Starship Character

Creating a starship character works pretty much the same as you'd expect from the Commonality human sample character shown on page 9. You'll have the Installation genotype, probably either the Commonality or Core Worlds culture, and at least one term of the Installation (sentient starship) career.

You'll also have two parts to your character sheet. The first is the standard character sheet, containing all your character-level info as a sentient starship character; the second is a ***ship sheet****, as shown in* ***Chapter 8: Starships and Space Stations*** *and on page 370. The ship sheet will contain standard data for a starship (in this case likely a faster-than-light Commonality starship called a* ***planeship****), but it's also where you'll mark battle damage to your actual body (the starship itself), as opposed to your character sheet which will probably contain your avatar's details for if you get caught in a firefight.*

Here's an example of a standard **Mindjammer** *character sheet filled out for a starship character—the* Profit*-class New Trader* Herald of Serendipity:

MINDJAMMER™

TRANSHUMAN ADVENTURE IN THE SECOND AGE OF SPACE

CHARACTER SHEET

Name: Herald of Serendipity
Occupation: Profit-Class New Trader
Culture: Commonality
Tech Index: T9 Second Age of Space
Homeworld: Bireme / Alfabright
Genotype: Installation
Longevity Packages: 3
Economic System: Disinterested Resource Allocation
Actual Age: 162
Apparent Age: n/a
Memes: Humanity is Transcending; Economics Should Provide For Everyone and Harm No One; Share Our Culture With Others

CHARACTERISTICS

Strength n/a DM n/a	Endurance n/a DM n/a	Education 14 DM +2
Dexterity 6 DM +0	Intellect 7 (10) DM +0 (+1)	Social 5 DM -1

RESOURCES

Resource Points:

Credits: Cr262,000

SKILLS

Admin 1 (2)	Engineer ( ) 2(3)	Interface (remote ops) 4 (6)	Pilot (spacecraft) 3 (7)
Advocate 3 (4)	Engineer ( )	Interface (sensors) 0 (1)	Pilot ( )
Animals ( )	Engineer ( )	Interface (comms) 0 (1)	Pilot ( )
Animals ( )	Explosive	Investigate	Profession ( )
Athletics ( )	Flyer (grav) 1	Jack-of-all-Trades 1	Profession ( )
Athletics ( )	Flyer ( )	Language (Universal)	Recon
Athletics ( )	Gambler	Language (Lowhigh) 2(3)	Science ( ) 0
Art ( ) 0	Gunner ( ) 0 (1)	Language ( )	Science ( )
Art ( )	Gunner ( )	Leadership	Social Science (linguistics) 1
Astrogation 2 (5)	Gun Cbt (energy) 0 (1)	Mechanic	Social Science ( )
Broker 1 (5)	Gun Cbt ( )	Medic ( ) 0	Seafarer ( )
Carouse 1 (5)	Gun Cbt ( )	Medic ( )	Stealth
Deception	Heavy Weapons ( )	Melee ( )	Steward
Diplomat 1	Heavy Weapons ( )	Melee ( )	Streetwise
Drive ( )	Informatics (mindscape) 2	Melee ( )	Survival
Drive ( )	Informatics ( )	Navigation	Tactics ( )
Drive ( )	Informatics ( )	Persuade 1 (2)	Vac Suit

HALO

Halo augs: Mindscape Implant
Extension: Avatar (STR9, END9), variform
Extension: Hazmat Avatar
Technopsi Points:

OTHER AUGMENTATIONS

Name	TI	Name	TI
Cognitive Aug +3			
Longevity			
Nanocells			
Stage 1 Gestalt Comms			

CONNECTIONS

Outremer Friendship Fleet Organisation: Scale 3, Reach 7
Network of Sentiences: +2 Contacts

STUDY PERIOD

Training in Skill:
Weeks: /
Study Periods Complete:

EQUIPMENT

Weapon	TI	Range	Damage	KG	Mag	Traits
Paralysis Wand	9	30m	4D	0.5	ZIP	Immobilise, Zero-G

Armour	Rad	Protection	KG	Options
T9 P-Suit	70	+11 (+9)	3	Variform

Equipment	Mass	Equipment	Mass
Flyer			
Grav Belt	2		
PSA (All Sensors)	Neg		

Total Carried Mass: 5.5kg

TRAITS

Concern For All Sentient Life 1
Fast Metabolism (+3)
Needy 2
Notable (EDU)
Photographic Memory

NOTES

Typical Careers: Explorer, Installation, Merchant, Military (marine), Sci-Tech, Spacer (belter).

TRAITS, ADVANTAGES, AND FLAWS

Traits represent abilities which exceed or otherwise modify standard human capabilities. They include physical attributes like fangs, claws, and other natural weapons; wings and gasbags; and being much larger (or smaller) than standard humans. Traits can be natural or engineered. Natural traits or those which are the result of genurgic manipulation usually breed true.

In addition to the new traits listed below, all of the following animal traits listed on pages 80-83 of the ***Traveller Core Rulebook*** are available to hominid and xenomorph characters as either inborn traits or genurgic augmentations: Amphibious, Bioelectricity (up to +2D), Camouflaged, Fast Metabolism (up to +3), Flyer (Very Slow or Slow) (with a maximum size of Small (-1)), Heightened Senses, IR/UV Vision, Large (+1), Poison (with stats equal to tranq gas or neurotoxin), * Slow Metabolism, * Small (-1 only). Traits marked with an asterisk (*) are negative traits that can be added freely and without cost; characters can have as many negative traits as they desire.

Additional Traits

AMPHIBIOUS (BREATH-HOLDING)

This trait is identical to the Amphibious trait, except that you can't breathe water. Instead, you can hold your breath for 15 minutes when performing strenuous activities, or up to 30 minutes when resting. This trait doesn't allow you to survive in vacuum, but if you're in a p-suit or other sealed garment without feeder tanks you can act normally for at least 15 minutes.

ARMOUR (+X)

This trait (***Traveller Core Rulebook*** page 80) has a maximum score of +8. The armour is always visible: +1 to +4 represents blubber, fur, scales, or other relatively normal-looking (if obviously inhuman) coverings, while +5 or higher represents obvious and highly unusual stony plates, thick jointed carapaces, and so on. Characters with Armour +5 or higher also automatically have the Weak (DEX) trait due to the limitations the armour imposes on their range of motion.

* ATMOSPHERE REQUIREMENTS

You require a non-standard atmosphere to survive. This trait can be minor or major. The minor version of this trait typically involves a need for more or less carbon dioxide or oxygen, or the presence of unusual trace gases such as chlorine. It imposes a Bane on all END checks and inflicts one point of damage per hour if forced to breathe a standard atmosphere. However, a simple breathing mask will remove these penalties and permit recovery of the damage sustained by exposure at the rate of 1 point of damage per minute.

The major version of this trait typically involves a need for a radically different atmosphere, without which you suffocate, sustaining 1D damage per round. While a breathing mask is usually sufficient remedy, characters with this trait typically wear p-suits and specially designed feeder tanks when in a standard atmosphere.

ENHANCED SMELL

You have an especially keen sense of smell, allowing you to identify traces of distinctive chemicals by scent and to make Recon checks to identity individuals or track them by scent.

FAST (+X)

Unmodified humans have a movement score / speed of 6m. With this trait, you can move at speeds of up to 6+X m.

GLIDING

You can move through the air at a speed of up to Slow, but cannot gain altitude except under limited circumstances like soaring on thermals, otherwise dropping 1m for every 20 horizontal metres you fly; nor can you take off from the ground without special assistance. Characters of size Large (+1) or larger can only glide in atmospheres with a pressure of High or greater..

*INVERTEBRATE

You lack a rigid skeleton, and can squeeze through small spaces with ease. A human-sized invertebrate could slip through any space at least 20 cm on a side. However, the lack of a skeleton also makes you more vulnerable to damage and gives you less leverage. As a result, you possess the equivalent of the Small (-1) trait (see below), despite your size being unchanged.

LARGE (+1)

In addition to being considerably larger than a normal human, your mass is between 300 and 500 kg, and you have difficulty manoeuvring in confined spaces that normal humans have no trouble with. You're also more resistant to damage; when calculating damage taken by your character, add +2 to each physical characteristic (STR, DEX, or END). This increase doesn't change the actual value of each characteristic, only the amount of damage it can take before being reduced to 0.

For example, a character with END 8 and the Large (+1) trait is treated as if their END was 10 for the purposes of taking damage; ie, it takes 10 points of damage to reduce their END to 0, but for all other purposes their END remains 8. Additional points

heal at the same rate as other characteristic points.

Large size also increases leverage. Add the character's size (+1) as a DM to all STR checks, and add +1D to all damage rolls for any melee attack that relies on your strength. Finally, Large size makes you more conspicuous; apply a DM-1 to all Stealth checks. See "Large (+X)" on page 81 of the ***Traveller Core Rulebook*** for further information.

NATURAL WEAPONS (+X)

You do 1D+X damage with natural weapons like claws or teeth; the natural weapon must be defined when the trait is taken. Remember that animals and characters do damage with their natural weapons based on their size (***Traveller Core Rulebook*** page 81). The maximum weapon bonus for humanoid or near-humanoid characters is +3.

NIGHT VISION

You possess excellent night vision, equivalent to someone wearing light-intensifier googles (***Traveller Core Rulebook*** page 111).

NOTABLE (CHARACTERISTIC) OR (SKILL)

This trait gives you a +2 bonus to either a single characteristic or a single skill. If you don't possess levels in the Notable skill, then this trait gives you the skill at level 2.

PARTIAL BIPEDIALISM

You can walk on two or four feet equally well. As a biped, you have a -2 penalty to Move; as a quadruped, your Move is equal to 3x your bipedal Move, meaning that a human-sized character with no other traits that affect movement would walk upright with a speed of 4 and walk on all fours with a speed of 12. However, when moving on all fours, you can't carry or hold anything in your hands, and can't manipulate objects. Movement modifiers like Fast or Slow affect both types of movement equally.

POOR MANIPULATORS

You have clumsy paw-like hands that suffer a DM-2 to all checks involving manual dexterity or fine manipulation. You don't incur these penalties when operating devices or using tools via Mindscape.

PHOTOGRAPHIC MEMORY

You remember everything you see, hear, or otherwise sense, and can recall it perfectly at any time; you never forget anything unless drugged or mentally manipulated via Mindscape. Mindscape exomemory can duplicate this trait, as long as the character has previously thoughtcast a specific memory to the Mindscape (it's a deliberate act), and is connected to the Mindscape at the time; see page 131.

PREHENSILE FEET

You have four hands, two of which are at the ends of your legs and are larger than ordinary hands. Your hips and ankles are also more flexible, so you can more easily manipulate objects with your feet. You gain a DM+1 with Mechanics checks and any checks to grapple an opponent in combat. However, hands are less good for running than feet, so you also possess the trait Slow (-2).

RADIATION TOLERANCE

You can endure large amounts of radiation; ignore the first 400 rads of any exposure. Additionally, you reduce your cumulative radiation exposure by 50 rads/day due to improved cellular self-repair mechanisms. You must also possess at least the Armour (+2) trait to acquire this trait.

* SLOW (-X)

Unmodified humans have a movement score / Speed of 6m; however, you may only move at speeds up to 6-X m. Sessile characters are poor choices for play, so Slow should be limited to a maximum reduction of -5. Characters with Slow (-1 to -3) can't run as rapidly as normal humans, but have the same walking speed.

* SMALL (-1)

In addition to being smaller than a normal human, your mass is between 25 and 50 kg, and you can move easily through spaces too small for ordinary humans. You're also less resistant to damage; when calculating damage taken by your character, subtract 1 from each physical characteristic (STR, DEX, and END) for each level of Small. This reduction doesn't change the value of the characteristic, just the amount of damage it can take before being reduced to 0.

For example, a character with END 8 and the Small (-1) trait is treated as having END 7 for the purposes of taking damage; 7 points of damage reduces their END to 0. For all other purposes, their END remains 8.

Small size also reduces leverage; you incur your character's size penalty (-1) as a DM to all STR checks.

Finally, Small size makes you less conspicuous; apply a DM+1 to all Stealth checks. See "Small (-X)" on page 84 of the ***Traveller Core Rulebook*** for further information.

SONAR

This trait allows you to produce pulses of ultrasonic sound to scan your environment, providing sensory information similar to that provided by black and white vision. In atmospheres, sonar provides detailed information about shape and position (sufficient to recognise faces) to a range of 10m, and more general information with much lower resolution out to 50m. Sonar functions better underwater, providing precise information to 100m, and lower resolution data to 500m.

Sonar requires no light to function, but its range is reduced by half in Low atmospheric pressure, and half again in Very Low. Sonar can't be used at all in atmospheric pressures of Trace or in vacuum.

TEMPERATURE TOLERANCE

Humans can survive unprotected in temperature ranges from 5ºC to 45 ºC, and suffer damage at higher or lower temperatures (***Traveller Core Rulebook***, page 78). This trait allows you to endure temperatures from -40 ºC to +60 ºC without harm. Most often, characters only possess either Temperature Tolerance (cold), increasing only their ability to endure temperatures down to -40ºC without harm, or Temperature Tolerance (hot), increasing only their ability to endure temperatures up to 60ºC without harm.

TENTACLES

You have boneless flexible limbs that can squeeze through almost any space and provide a DM+2 to all checks involving delicate manipulation, including surgery and repairing or modifying tiny mechanical components, but excluding combat checks except grappling. The tentacles have suckers or other gripping or adhesive measures, also providing a DM+2 to climbing checks and contests of STR involving holding onto an object or person.

Trait Limitations and Purchasing Additional Traits

*All characters may possess one trait from their culture and up to three traits from their genotype. Characters may also exchange up to two characteristic points or benefit rolls for two additional traits. Characters created using point-based character generation (page 82) may also purchase up to two additional traits at a cost of 1 Term Point per trait. However, characters may not purchase additional Notable traits in this fashion, nor may any character possess more than two Notable traits. Traits marked with an asterisk (*) have no cost, and don't count against these limits. You may take as many * traits as you wish.*

UNIQUE SENSE

You possesses a sense that standard humans do not, such as the ability to see x-rays, or to send and receive radio waves. Work out the details of this sense with your GM.

* WEAK (CHARACTERISTIC)

You suffer a -2 penalty to a single characteristic, with a minimum score of 1. Characters with INT 1 are not suitable characters for ***Mindjammer***.

VACUUM TOLERANCE

You can survive in vacuum, possessing the equivalent of a built-in p-suit (page 97). To possess this trait, you must also have at least the Armour (+5) trait. You may survive indefinitely in vacuum as long as you have access to food and water; you no longer need to breathe, exactly as if you had built-in feeder tanks.

FLAWS

Some characters have special physical or psychological limitations, known as **flaws**. You may freely choose up to two flaws, and may gain others during character generation and play.

Common Flaws

Some individuals are born with these flaws, others acquire them from psychological trauma such as mindburn (page 75), or (for synthetics) eidolon crisis (page 76). Each common flaw a character possesses before starting their careers provides either a +1 to any characteristic, or one additional skill roll from a career of their choice.

COWARD
You become afraid unusually easily; checks to intimidate you gain a Boon. You try to avoid situations of immediate danger, and must make a Routine (6+) END check to avoid running or surrendering when given a chance to do so in such a situation.

FANATIC
You're passionately devoted to a particular **meme** (page 81), willing to suffer social, legal, and even physical penalties for living by it. You look positively on others who share the same meme.

LAW-ABIDING
You avoid breaking your culture's laws, and won't even attempt to do so without a compelling reason; if you do, you suffer a Bane on any related checks. While anyone can have this flaw, it's most often found among Commonality citizens who have violated Commonality law and been subjected to therapeutic re-education (see textbox).

LONGEVITY RESTRICTION
You suffer from a **longevity restriction**, even if you're not exceedingly old; see page 80. These are cumulative with longevity restrictions gained elsewhere; ie, if you gain Pacifism 1 as a flaw, and later acquire another level due to longevity, you'd have Pacifism 2.

PHOBIA
You're terrified of a particular creature, circumstance, or phenomenon. In the presence of the phobia's trigger, you incur a Bane on all checks not directly involved with getting away from or eliminating it. You'll also take steps to avoid coming into contact with the trigger. Appropriate triggers for phobias shouldn't be ubiquitous or unavoidable, like gravity or air, but neither should they be exceptionally rare, like a particular type of animal found only on a single planet, or elemental mercury. Common triggers include: open flame, complete or almost complete darkness, small insect-like creatures, venomous animals, stasis fields, and (in some cases) xenomorphs.

PREJUDICED
Your character fears, loathes, or simply dislikes a particular group. Bigotry against xenomorphs or synthetics is most common, but other targets include Commonality citizens, residents of the Fringe, or even anyone from a different culture. You incur a DM-2 on all checks involving social interaction with members of the group you're prejudiced against, and you go out of your way to avoid spending time with them.

TECH CONSERVATIVE
You're only comfortable using technology you're very familiar with, and have great difficulty learning to use new technology. Double all penalties for using equipment with a tech index different from your personal TI, incurring a DM-4 per TI difference when operating, attempting to repair, or learning to use equipment or vehicles from a higher TI; and a DM-2 when operating, attempting to repair, or learning to use equipment or vehicles from a lower TI. If you change your personal TI, you still suffer these penalties when using equipment from other tech indices, including the TI which was previously your personal TI.

Commonality Law and Re-Education

The Commonality abolished prisons, judicial executions, and similar archaic punishments thousands of years ago. However, sometimes Commonality citizens commit serious crimes. The Commonality takes a dim view of its citizens being imprisoned, tortured, or executed by other polities, regardless of the crimes the individual has committed, and negotiates for the release of those imprisoned by foreign states, with the promise that the individuals will be held responsible for their crimes.

*For serious crimes, the Commonality subjects criminals to **therapeutic re-education**, a process whereby individuals have their minds and values altered to ensure they obey Commonality laws in future. The Commonality also prefers its citizens not to violate the laws of states they're visiting, but unless the law violated is also part of Commonality law, or the person is visiting a closely allied state like the Sentient Alliance, individuals suffer no punishment beyond exile from that state and promising Commonality representatives that they won't return. Individuals violating these guarantees are usually detained at the world's starport or point of entry, and violators without **excellent** reasons are likely to be subjected to mandatory therapeutic re-education.*

Major Flaws
Major flaws are particularly limiting, equal in severity to two common flaws; if you take one, you gain 2 additional characteristic points, or 2 additional skill rolls, for each major flaw. Since characters can possess up to two flaws, you could take both of these as major flaws and receive 4 additional points of characteristics or skills. You can't acquire major flaws during your careers or in play.

IMPLANT REJECT
Your body rejects most or all augmentations. You can never have a Mindscape implant, gain access to the Longevity augmentation, or use other augmentations. The only form of longevity you can use is rejuve.

YOUNG

For Commonality characters or cultures where members gain the Longevity augmentation at adulthood and then enjoy several more decades of education, someone who is in their 20s or 30s is barely more than a child. However, for some reason you rejected the decades of education on offer and began your career at age 18, just like the low tech inhabitants of the Fringe. You can still take the Longevity augmentation if you wish, but due to choice or circumstance you began your career at age 18; perhaps you didn't want to wait decades before setting out for adventures in the Fringe, or maybe the your starship crashed, and you lived as a downtecher for several years, after which you didn't want to go back to being treated as an adolescent.

PRE-CAREER EDUCATION

Once you've decided on your character's culture and genotype, you're ready to enter your pre-career education or your first career (page 39). On Fringe worlds of T2 or higher, on some Commonality culture worlds, and among the Venu, characters who are interested in doing so can use the rules for universities and military academies presented in the ***Traveller Core Rulebook*** (page 14), with the following changes.

FOR UNIVERSITY:

- Replace Electronics with Interface or Informatics on the skill list.
- Graduation and Graduation with Honours provide the listed bonuses to qualify for the following careers; Diplomat, Explorer, Military, Sci-Tech, Security.

FOR MILITARY ACADEMY:

- Military Academy is the same for AFI Soldier and Space Force Marine: END: 8+. There is no academy for Hi-Threat Assault Troopers.
- Skills provided are the service skills from the Military career.

Events During Pre-Career Education

The **Events During Pre-Career Education** table on page 15 of the ***Traveller Core Rulebook*** is modified as shown in Table 3-2: Pre-Career Education Events.

Pre-Career Education Within the Commonality

Most Commonality citizens can expect to live lives of many centuries, and happily spend their first decades in education, preparing themselves for productive careers in the new golden age of Rediscovery. As a result, all beginning Commonality characters automatically receive a **longevity package** (page 79) at adulthood. Except on a few culture worlds, this extended pre-career education is almost universal, and typically lasts until citizens are at least 50 years old. In rules terms, Commonality characters who lack the Young or Implant Reject major flaws gain a longevity package, and all its benefits, before choosing their first career.

Table 3-2: Pre-Career Education Events

Roll	Event
2	Replace the entry with: You catch the interest of someone from the Commonality. They offer you Commonality citizenship. If you accept, you do not graduate, but gain a Commonality longevity package and become a Commonality citizen. Even if you refuse, your contact with someone from the Commonality increases your personal TI by +1 if it is lower than 9.
4	Any roll of 2 on the SOC roll is ignored.
11	Replace the entry with: Your world is raided or at war. If you roll SOC 9+ you can continue your education normally. Otherwise, you do not graduate and instead choose between immediately joining either the Military or the Rogue career.

Because the Commonality prefers citizens to have a grounding in general life skills and specialise once they choose a career, this initial longevity package is slightly different from the standard longevity package described on page 79. First, its skills and benefits are automatically drawn from the Civilian (Commonality citizen) career. Second, you can gain a maximum of 2 levels in any given skill (if you're rolling for skills, reroll any roll that would take you above level 2)—the Commonality tries to produce well-rounded citizens. And, thirdly, the package provides you with a +2 to EDU, and 6 skills (rather than the default 8 skills of the standard package). Note that the +2 EDU is in addition to the bonus from the Notable EDU trait that growing up in the Commonality provides. Note also that you don't roll for any career events, survival or advancement during your pre-career education; the Civilian career just specifies the tables to pick your skills from.

Finally, your Commonality education provides you with all the other benefits of the standard longevity package. These are detailed on page 79, but we'll recap them here. You gain:

- a single extension (an Avatar, Emulator, Halo, or Sentinel: see page 110);
- a single connection, ally, or organisation;

- Cr250,000-worth of unrestricted augmentations or other pieces of unrestricted personal equipment.

Once you've completed your Commonality education, you then gain a DM+2 if you try to qualify for any of the following careers: Diplomat, Explorer, Merchant (cartel member), Military, Sci-Tech, and Security.

CAREERS

Your personal Tech Index and culture may restrict your choice of career. If either of these changes during character generation, check the careers list to see which careers ones you're now eligible for, or which you're no longer eligible for.

Civilians, Rogues, and the Resource Allocation Board

As in the ***Traveller Core Rulebook***, you may attempt to enlist in one career each term if you aren't continuing with an existing career. If you fail to qualify for a new career, you have several options. Every character automatically qualifies for the Civilian career on their homeworld, or in the polity where they last had a career as a Civilian. Additionally, any character also automatically qualifies for the Rogue career, and any character from a Fringe world with T8- automatically qualifies for the Downtecher career. You may choose any of these options that

Fifty Years of Education

With lifespans expected in centuries and perhaps even millennia, Commonality citizens feel no need to get education over with quickly. The first fifty years of life in the Commonality usually consists of the following.

Table 3-3: Fifty Years of Education

Age	Education
1-3	"Cyber-nursery".
4-6	Socialisation.
7-10	Basic skills, analysis, filling out.
11-16	Broad skill base.
17-21	Mindscape (initial implant and training).
21-25	Primary education and correctives.
26-30	Longevity augmentation acclimation.
31-35	Life skills and correctives.
36-40	Mentoring, contributory education, and additional augmentations.
41-50	Specialisation selection (including career).

Table 3-4: Resource Allocation Board Table

1D	Career
1	Downtecher (uplifter only)
2	Explorer (scout only)
3	Merchant (corporacy mercantilist only)
4	Military (AFI soldier or marine only)
5	Security (culture agent only)
6	Spacer (belter or starship crew only)

you meet the requirements for without rolling.

In addition, in the Commonality, you can apply to the **Resource Allocation Board** to be assigned to a career that you could not otherwise qualify for. The Resource Allocation Board is the Commonality's version of the draft; people who apply to it are assigned to duties which the Commonality needs personnel for. Characters can apply to the Resource Allocation Board up to once a term, but must accept the result of the board's choice for at least the next term.

Changing Careers or Assignments

Changing careers is handled identically to the process described on page 18 of the ***Traveller Core Rulebook***. Changing assignments in the Diplomat, Explorer, Installation, Military, and Sci-Tech careers simply requires a qualification roll. If this roll is unsuccessful, the character continues in the career with their previous assignment, without penalty. If the qualification roll is made, the character adopts the new assignment and continues in the career, retaining their rank.

New assignments in the Civilian, Downtecher, Merchant, Security, and Spacer careers are considered to be new careers. Benefit rolls are made as normal, and a qualification roll is necessary to enter the assignment. Characters who change assignments in these careers do not retain their rank. A character who fails the qualification roll must become a Rogue, a Civilian in their current culture, or submit to assignment by the Resource Allocation Board.

Specialisation, Genotypes, and Augmentation

Occupational specialisation is a feature of the hyper-advanced societies of **Mindjammer**. *Human and other beings are increasingly tailored for certain tasks and roles. Human beings evolved to be adaptable generalists; in the Commonality, and especially in the Core, this seems to be in reverse: Commonality nootropes are highly adapted administrators, the Chembu specialise in genurgy, starship 2-pilots are usually synthetics, n-pilots are often feline, cetacean, or cephalopod xenomorphs, and so on. This isn't necessarily the case on the Frontier—another instance of the diverging Fringe and Core societies.*

New Listings for Careers

The careers listings which follow include several new parameters, described below.

Tech: *Only characters with a personal TI in the listed range may choose this career. Some careers and events alter your personal TI, but it typically does not change during a term.*

Economic System: *This is the economic system or range of economic systems that offer this career. Choosing this career means that your benefits rolls are governed by the rules of this economic system. Changing careers can change your economic system.*

Longevity Package: *This is a roll, listed as Longevity Package: X+. For every term that you're in this career, you must roll to acquire a* ***longevity package*** *in this career. Longevity packages provide you with skills, augmentations, equipment, and other benefits, and are detailed on page 79. If you're from the Commonality culture, you'll have already acquired a slightly customised longevity package as part of your initial pre-career education; this is in addition to that. Success on the roll makes you 50 years older, and gives you various advantages (see page 79). Failure means you take no longevity package this term, but you must roll again the next term. You must make a longevity package roll every term, and unless your referee permits older characters, you must end character generation as soon as you have obtained 3 longevity packages, including the one obtained from Commonality pre-career education.*

Extensions: *This is the 2D roll needed to gain an* ***extension*** *(see page 110) in this career term, together with a list of possible extensions. Only characters with Mindscape implants whose personal TI is at least T8 may gain extensions. Characters may roll for extensions once per term.*

Connections: *This is the 2D roll needed to gain a* ***connection*** *in this career term. Connections are ties to other characters or groups, including allies, contacts, and* ***organisations****. See page 185 for more on organisations; allies and contacts are described on page 18 of the* **Traveller Core Rulebook**. *Characters may roll for connections once per term.*

How Long Should I Stay In My Career?

Usually in **Traveller**, *the creeping enfeeblement caused by successive ageing rolls encourages you to stop rolling for career terms for your character before he's too old to make a difference. In* **Mindjammer**, *with its vastly extended lifespans, synthetic characters, and longevity and rejuvenation technologies, things are somewhat different. In theory, it's possible to keep your character rolling for career terms almost indefinitely, gradually racking up skill levels and expertise; in the Commonality, there are synthetic sentiences thousands of years old, and even normal humans have lifespans measured in centuries.*

In practical terms, we advise you to put a maximum age limit on your characters. Specifically, once your character hits 150 years old, we suggest you finish up with character creation and get ready to play. Practically speaking, this is really only an issue for synthetics and Commonality culture characters; Fringe Worlders, xenomorphs, Outer Worlders, and the like come from cultures where longevity isn't yet widely available and therefore not a problem.

For long-lived characters, this means you're topping out at two or three longevity packages. You'll have a character who's highly competent and with a long history, extensive contacts and organisational ties, and possibly many augmentations; but importantly he'll also be a little "strange" to his younger counterparts, simply by virtue of having lived so long. In **Mindjammer**, *long-lived characters gain* ***longevity restrictions*** *(page 80), which are behavioural restrictions (and even flaws) which can force your character to act in certain ways, and, the older your character is, the more such restrictions he'll have.*

Lastly, keeping your character under 2-3 longevity packages means he'll be less than 200 years old. That means he'll have been born, instantiated, or otherwise created since the beginning of the New Commonality Era, part of the brave new golden age of Rediscovery.

Of course, there's nothing stopping you from playing older and stranger characters; discuss it with your referee if that's something that interests you. But also bear in mind that it'll be the rare 500-year old who wants to put his life at risk watching a gang of greenbacks stumbling through life making all the same mistakes he once did before FTL was ever even thought of!

CIVILIAN

Qualification: EDU 5+, DM-1 for every previous career (but only if choosing a Civilian career outside of your culture). No qualification roll is necessary to choose this as a first career or to return to this career, as long as the character returns to the same assignment. However, changing assignments is considered to be starting a new career. If this roll is successful, this new assignment requires no roll to return to. Most people are civilians—from the densely populated Core Worlds, to the lost colonies being rediscovered every day.

TI Modification: If someone not raised in the Commonality becomes a Commonality citizen, their personal TI increased by +1 (to a maximum of T10). If someone who was not raised as an Outer Worlder becomes an Outer Worlder, their personal TI decreases by -1 (to a minimum of the TI of that outer world).

SPECIALISATION: COMMONALITY CITIZEN

Commonality citizens lead charmed lives, with extended lifespans, genurgic enhancements, and post-scarcity economies. Social structures vary: Core World citizens are often born *in vitro* and raised in communal, specialised environments, whereas those on rediscovered worlds differ from planet to planet.

Tech: T9-T10.

Economic System: Disinterested Resource Allocation (other options are possible for citizens of Culture Worlds).

Longevity Package: 7+, DM-1 per additional term.

Extensions: EDU 9+ (avatar, emulator, skill chip).

Connections: SOC 9+; choice of ally, contact, or organisation (corporacy or instrumentality).

SPECIALISATION: FRINGE WORLDER

The most recent additions to Commonality society are the Fringe Worlds—sometimes already integrated, sometimes full of fiery resistance, they are unique and energetic cultures unfamiliar with the Commonality's ways.

Tech: T8-T9 (by homeworld).

Economic System: By homeworld.

Longevity Package: 10+, DM-1 per additional term.

Extensions: EDU 10+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 9+; choice of ally, contact (any local or Commonality citizen), or organisation (corporacy).

SPECIALISATION: OUTER WORLDER

Populations of the Outer Worlds have probably never heard of the Commonality, and may not even know there's life out there among the stars. If they're not on their homeworld, they've either been abducted, or are part of a secret exchange with an off world power.

Tech: T1-T8 (by homeworld).

Economic System: By homeworld.

Longevity Package: 11+ (if permitted by TI), DM-1 per additional term.

Extensions: EDU 10+ (emulator, sentinel (if TI 8+), skill chip).

Connection: SOC 10+; choice of ally (any local citizen or disguised off-worlder) or organisation (local government).

Table 3-5: Civilian Career Progress

Specialisation	Survival	Advancement	Longevity
Commonality Citizen	SOC 6+	EDU 6+	7+*
Fringe Worlder	EDU 6+	INT 6+	10+*
Outer Worlder	END 6+	EDU 8+	11+* (if permitted by TI)

**DM-1 per additional term.*

Table 3-6: Civilian Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 10)
1	+1 EDU	Broker	Advocate
2	+1 INT	Carouse	Art
3	+1 SOC	Drive or Flyer	Diplomat
4	Carouse	Informatics	Informatics
5	Drive or Flyer	Profession	Language
6	Jack of All Trades	Steward	Medic

Table 3-7: Civilian Specialist Skills and Training

Roll 1D	Specialist: Commonality Citizen	Specialist: Fringe Worlder	Specialist: Outer Worlder
1	Admin	Admin	Admin
2	Advocate	Drive or Flyer	Animals or Drive
3	Diplomat	Informatics	Carouse
4	Informatics	Language	Language
5	Interface	Persuade	Profession
6	Profession	Profession	Survival

Table 3-8: Civilian Ranks and Benefits (Commonality Citizen)

Rank	Specialist: Commonality Citizen	Skill or Benefit
0		
1		Admin 1
2	Important Citizen	
3		Informatics (Mindscape) 1
4	Respected Citizen	
5	Influential Citizen	+1 SOC
6		

Table 3-9: Civilian Ranks and Benefits (Fringe Worlder)

Rank	Specialist: Fringe Worlder	Skill or Benefit
0		
1		Profession 1
2		
3	Consultant	Admin 1
4		
5	Counsellor	
6		+1 SOC

Table 3-10: Civilian Ranks and Benefits (Outer Worlder)

Rank	Specialist: Outer Worlder	Skill or Benefit
0		
1		Streetwise 1 or Survival 1
2	Spokesperson	
3	Leader	Leadership 1
4		
5	Elder	Diplomat 1
6		

Table 3-11: Civilian Mustering Out Benefits

Roll 1D	Credit	Other Benefits
1	1,000	Halo (+1 EDU for T7- Outer Worlders).
2	5,000	Emulator (+1 INT for T6- Outer Worlders).
3	10,000	Avatar (+1 END for T5- Outer Worlders).
4	10,000	Vehicle.
5	10,000	Augmentation (Ally for T5- Outer Worlders).
6	50,000	Ship (+1 EDU for T7- Outer Worlders).
7	100,000	+1 SOC.

Table 3-12: Civilian Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	Political or social unrest strikes your world. Gain one of Advocate 1, Gun Combat 1, Recon 1, Streetwise 1, or Tactics 1.
4	You come into contact with radical new ideas. Gain 1D3 contacts, and roll Persuade or Streetwise 7+. On a failure, you are injured; on a success, you gain Advocate 1 or Tactics 1.
5	You encounter radical new technologies. Gain one of Engineer 1, Informatics 1, or Interface 1. If you didn't have one previously and lack the Implant Reject flaw, taking Informatics automatically gets you a Mindscape implant (page 103).
6	You're given advanced training in a specialist field. Roll EDU 10+ to gain any 1 skill of your choice at level 1.
7	Life event.
8	You're involved in shady dealings. If you choose to go along with them, you gain a DM+1 to this term's benefit roll, and gain a criminal contact and Deception 1 or Streetwise 1.
9	If you have a Mindscape implant you spend a lot of time in virtualities, and may automatically take any one virtuality extension (page 78) as this term's benefit. Otherwise you gain +1 Informatics.
10	You're embroiled in endless bureaucracy. Gain one of Admin 1, Advocate 1, Diplomat 1, or Persuade 1.
11	You befriend a very useful social superior; gain an ally. You can take Diplomat 1, or gain a DM+2 to your next advancement roll.
12	Automatic promotion.

Table 3-13: Civilian Career Mishaps

Roll 1D	Mishap
1	You're injured. Roll on the Injury Table.
2	Revolution, unrest, or social upheaval forces you to leave your world. Roll Streetwise 8+; on a success, increase any skill by +1 level.
3	Commonality planning, corporacy intervention, or other such force threatens your profession or way of life. Go along with it and let your profession or way of life be destroyed, getting a DM+2 on your next benefit or qualification roll; or resist it and gain an ally.
4	A local co-worker or community member becomes a rival.
5	Economic collapse, technological change, or both, destroys your lifestyle. Reduce your SOC by -1.
6	Gain a powerful official with widespread influence as an enemy.

DIPLOMAT

Qualification: SOC 9+, DM-1 for every previous career. Auto-qualify if your Social Standing is 10 or above.

With the constant cultural friction along the Frontier, and the endless issues thrown up by the Commonality's young and vibrant interstellar society, diplomats are everywhere. Some work for the Communications Instrumentality; others represent other cultures or worlds.

SPECIALISATION: AMBASSADOR

Most rediscovered worlds not yet fully integrated into the Commonality have a Commonality ambassador and staff. Likewise, the same worlds send ambassadors to the Commonality—often to the Pansectoral Moots at the sector capitals.

Tech: T7-T10 (by polity).

Economic System: By polity.

Longevity Package: 6+ (Commonality) / 9+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 7+; choice of ally (any from either home polity or your posting) or organisation (local government).

SPECIALISATION: ATTACHÉ

You work in an embassy as an aide. The diverse nature of your duties means that you can be anything from a researcher or investigator to a part-time spy.

Tech: T7-T10 (by polity).

Economic System: By polity.

Longevity Package: 7+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 8+; choice of ally (any from either home polity or your posting) or organisation (local government).

SPECIALISATION: NEGOTIATOR

Where ambassadors fail, or where they aren't yet allowed, negotiators are on the front lines, hammering out peace agreements and forging the terms on which a world will join the Commonality. Some are sent to work immediately after first contact has been made. While ambassadors and attachés can come from any advanced culture, almost all negotiators are from the Commonality.

Tech: T9-T10 (by Commonality homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world).

Longevity Package: 7+ (Commonality), DM-1 per additional term.

Extensions: INT 8+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 7+; choice of ally (any from either the Commonality or your posting) or organisation (local government, corporacy, or instrumentality).

Table 3-14: Diplomat Career Progress

Specialisation	Survival	Advancement	Longevity
Ambassador	INT 4+	SOC 7+	6+ / 9+*
Attaché	SOC 4+	EDU 6+	7+ / 10+*
Negotiator	INT 5+	INT 8+	7+*

**DM-1 per additional term.*

Table 3-15: Diplomat Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)
1	+1 DEX	Admin	Advocate
2	+1 EDU	Carouse	Informatics
3	+1 INT	Drive or Flyer	Investigate
4	+1 SOC	Diplomat	Interface
5	Deception	Leadership	Language
6	Informatics	Persuade	Social Science

Table 3-16: Diplomat Specialist Skills and Training

Roll 1D	Specialist: Ambassador	Specialist: Attaché	Specialist: Negotiator
1	Advocate	Admin	Broker
2	Carouse	Deception	Diplomat
3	Broker	Drive or Flyer	Language
4	Deception	Interface	Leadership
5	Diplomat	Investigate	Persuade
6	Leadership	Stealth	Social Science

Table 3-17: Diplomat Ranks and Benefits (Ambassador)

Rank	Specialist: Ambassador	Skill or Benefit
0		
1	Diplomat	Admin 1
2		
3	Senior Diplomat	Diplomat 1
4	Ambassador	
5	Pansectoral Consul	+1 SOC
6	Ambassador Without Portfolio	

Table 3-18: Diplomat Ranks and Benefits (Attaché)

Rank	Specialist: Attaché	Skill or Benefit
0		
1	Analyst	Informatics 1
2	Aide	Investigate 1
3		
4	Counsel	Advocate 1
5	Advocate	
6		

Table 3-19: Diplomat Ranks and Benefits (Negotiator)

Rank	Specialist: Negotiator	Skill or Benefit
0		
1	Assistant Negotiator	Persuade 1
2		Social Science 1
3	Negotiator	
4	Chief Negotiator	
5		Diplomat 1
6	Arbiter	

Table 3-20: Diplomat Mustering-out Benefits

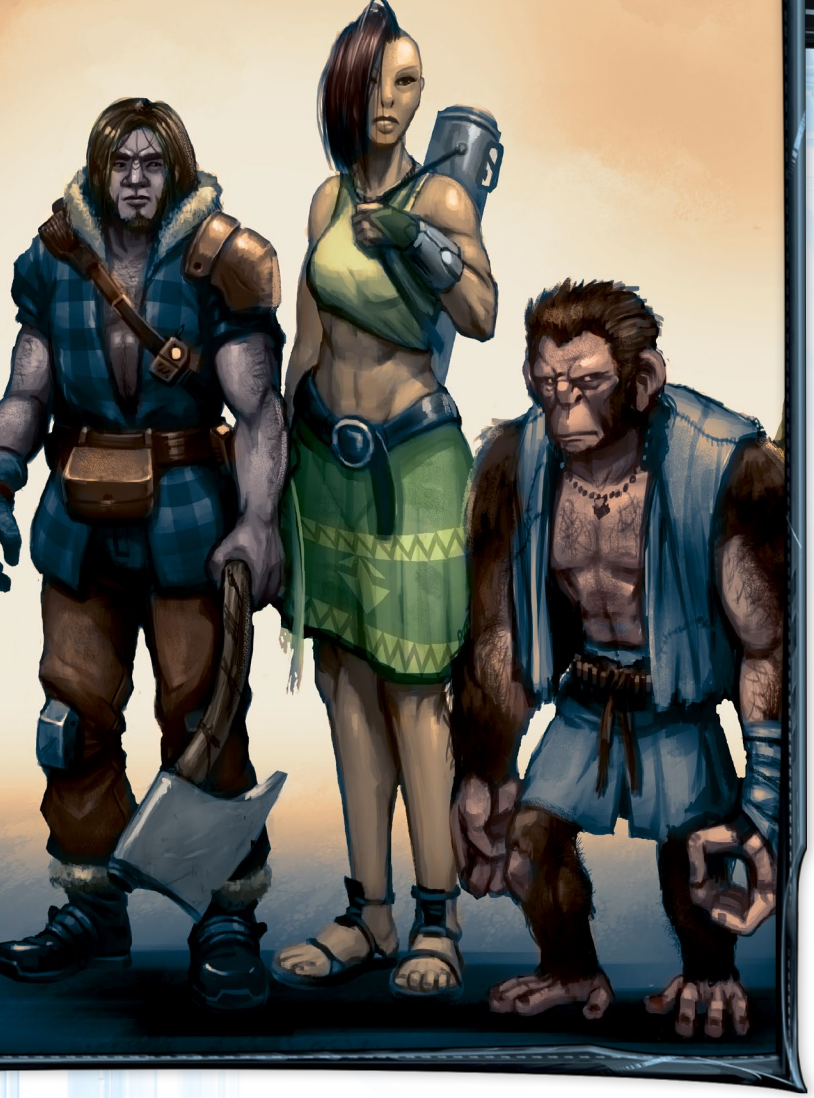
Roll 1D	Credit	Other Benefits
1	10,000	Helper drone
2	10,000	Augmentation
3	50,000	Organisation
4	50,000	Halo or Emulator
5	100,000	Virtuality
6	100,000	Diplomatic courier ship
7	200,000	+1 SOC

Table 3-21: Diplomat Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	You are involved in a "duel" of political intrigue. Roll Diplomat, Leadership, Persuade or Tactics 8+: on a failure, lose 1 SOC and forfeit your benefit this term; on a success, gain +1 SOC and a rival.
4	You gain access to specialist training. Take any skill of your choice at level 1.
5	You are instrumental in securing a major diplomatic agreement. Gain an ally and +1 SOC.
6	You gain access to major resource allocation. Gain a DM+1 on this term's benefit roll.
7	Life event.
8	You are embroiled in a political conspiracy. Roll Deception, Diplomat, or Tactics 8+: on a failure, lose 1 SOC and roll on the Mishap table as the conspiracy collapses; on a success, gain 1D3 contacts and one of Carouse 1, Deception 1, Persuade 1, or Tactics 1.
9	You advance through popular acclaim. Gain one of Diplomat 1 or Persuade 1, a jealous competitor as an enemy, and a DM+2 on your next advancement roll.
10	You manipulate or charm your way through high society. Gain a rival or an ally, and one of Carouse 1, Diplomat 1, Persuade 1, or Steward 1.
11	You make an ally of a powerful dignitary in your service. Gain +1 Leadership or a DM+4 to your next advancement roll and an ally.
12	Automatic promotion.

Table 3-22: Diplomat Career Mishaps

Roll 1D	Mishap
1	A negotiation goes horribly wrong and many people are killed. Roll on the Injury Table, and gain the other side as an ally or enemy. If an ally, then also gain a member of your own side as an enemy.
2	You are accused of espionage. Whether true or not, lose 1 SOC, and gain a DM+2 to qualify in the Security career. Gain +1 Deception.
3	Your diplomatic vessel crashes on a low tech world, your next career is automatically Downtecher (any). Gain +1 Survival.
4	Diplomatic intrigue forces you out. Gain one of Advocate 1, Deception 1, or Diplomat 1, and gain a rival.
5	There's a sea-change in political currents in the Communications Instrumentality or your diplomatic service. Gain a contact and +1 Deception.
6	You are drawn into politics or the military. Pick a side, and gain a DM+2 to qualify in either the Military or Security (culture agent) careers with an automatic +1 rank.



DOWNTECHER

Qualification: Automatic if T8 or less, may be entered by a mishap.

Maybe you're from a low tech lost colony or Fringe World, or a neo-culture which eschews advanced technology. Either way, your personal tech index is no higher than T8 and is probably lower.

Rescue Roll: Some characters end up in this career because they suffered a mishap, as a result of which they were exiled to or crash landed on an isolated low tech world. Any character who begins this career due to such a mishap may make a roll to be rescued by a visiting starship; characters who are natives of this world can make this same roll to talk or bribe their way onto a starship.

TI Modification: If someone from a world of T5 or higher serves one or more terms as a barbarian, their personal TI decreases by -1 (to a minimum of the world's TI). Serving one or more terms as a bootstrapper or uplifter increases a character's TI by +1 as long as their personal TI is less than T9. Serving one or more terms as a bootstrapper and then one or more terms as an uplifter increases a character's personal TI by +2.

SPECIALISATION: BARBARIAN

Some worlds are so primitive that all knowledge of advanced technology has been lost. Sometimes the Commonality quarantines these worlds; other times it occupies them and assimilates the native culture; at other times still the world escapes notice—except perhaps for New Traders or other ne'er-do-wells. Barbarian characters make their ways off these worlds and tread a path of mayhem through the Commonality.

Tech: T0-T3 (by homeworld).

Economic System: Barter, Confiscation, Unregulated Money Economy, Regulated Money Economy.

Longevity Package: None.

Extensions: None.

Connections: SOC 7+; choice of ally (any local or disguised off-worlder) or organisation (local government).

Rescue Roll: 7+.

SPECIALISATION: BOOTSTRAPPER

Some cultures, when faced with the Commonality (and especially the Commonality embargo), double their efforts to catch up, spurring cultural renaissances and technological leaps. Bootstrappers are from those societies; born into turbulent change, they rise through the tech indices by sheer power of will, and the occasional bit of reverse-engineered tech.

Tech: T4-T7 (by homeworld).

Economic System: Unregulated Money Economy, Regulated Money Economy, Planned Economy.

Longevity Package: 10+ (rejuve only and only at T6+).

Extensions: None.

Connections: SOC 8+; choice of ally (any local or disguised off-worlder) or organisation (local government).

Rescue Roll: 8+.

SPECIALISATION: UPLIFTER

The Commonality doesn't leave all low-tech cultures where it finds them; some it **uplifts**, sending in cultural and technical teams to raise the world to standard Commonality tech as quickly as possible. Uplifter characters may not understand the tech they're using, and may be in profound culture shock, but they're beginning to cope in Commonality society—just!

Tech: T7-T8 (by homeworld).

Economic System: Any except Barter.

Longevity Package: 10+, DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 8+; choice of ally (Commonality uplift specialist or ship) or organisation (local government, or Commonality instrumentality or corporacy).

Rescue Roll: Automatic for off-worlders (due to contact with uplift teams), 7+ for locals. Off-worlders can continue in this career if they wish and can leave after any term.

Table 3-23: Downtecher Career Progress

Specialisation	Survival	Advancement	Longevity
Barbarian	END 6+	STR 7+	None
Bootstrapper	INT 6+	EDU 6+	10+ (rejuve only)[1]
Uplifter	EDU 5+	SOC 6+	10+*

*[1]T6+ only. *DM-1 per additional term.*

Table 3-24: Downtecher Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)
1	+1 DEX	Athletics	Diplomat
2	+1 END	Melee or Gun Combat	Engineer
3	+1 END	Recon	Language
4	+1 INT	Streetwise	Mechanic
5	+1 STR	Stealth	Science
6	Jack of All Trades	Survival	Tactics

Table 3-25: Downtecher Specialist Skills and Training

Roll 1D	Specialist: Barbarian	Specialist: Bootstrapper	Specialist: Uplifter
1	Animals	Drive or Flyer	Drive or Flyer
2	Carouse	Engineer	Engineer
3	Melee	Interface	Informatics
4	Seafarer	Mechanic	Mechanic
5	Stealth	Science	Pilot
6	Survival	Vac Suit	Science

Table 3-26: Downtecher Ranks and Benefits (Barbarian)

Rank	Specialist: Barbarian	Skill or Benefit
0		
1		Survival 1
2	Warrior	Melee (blade) 1
3		
4	Chieftain	Leadership 1
5		
6		

Table 3-27: Downtecher Skills and Benefits (Bootstrapper)

Rank	Specialist: Bootstrapper	Skill or Benefit
0		
1	Junior Engineer	Streetwise 1
2		
3		Deception 1
4		
5	Project Leader	Engineer 1
6		

Table 3-28: Downtecher Skills and Benefits (Uplifter)

Rank	Specialist: Uplifter	Skill or Benefit
0		
1	Assistant Technician	Vac Suit 1
2		
3	Technician	Mechanic 1
4		
5		Pilot 1
6	Local Uplift Coordinator	

Table 3-29: Downtecher Mustering-out Benefits

Roll 1D	Credit	Other Benefits
1	None	Contact
2	None	Weapon
3	1,000	Ally
4	5,000	Weapon of +1 TI
5	10,000	+1 EDU
6	15,000	Ship (Equipment of +1 TI if T7 or lower)
7	20,000	Organisation

Table 3-30: Downtecher Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	You are injured by an environmental hazard. Gain one of Animals 1 or Survival 1.
4	You scavenge or otherwise come across some useful equipment; gain a DM+2 on your next benefit roll.
5	You take part in a heroic feat, mission, or adventure. Roll Gun Combat, Leadership, or Melee 8+: on a success, gain Leadership 1; on a failure, you're injured. Either way, you also gain 1D3 contacts.
6	You have an Unusual Life Event; roll on the table (page 75).
7	Life event.
8	You are attacked! Gain an enemy, and roll Gun Combat, Melee, or Stealth 8+ to avoid injury. On a success, gain +1 SOC.
9	You encounter an advanced culture; roll INT 8+. On a success, you may gain any skill at T9. This may include Informatics (Mindscape) and an associated Mindscape implant (page 103). On a failure, you experience lost time and gain a mystery (page 76). If you're a marooned off-worlder, do not roll: you're automatically rescued instead.
10	Life on the edge hones your abilities. Gain a +1 on any skill you already have.
11	A local leader takes you as a favourite. Gain an ally, and a DM+2 on your next advancement roll.
12	Automatic promotion.

Table 3-31: Downtecher Career Mishaps

Roll 1D	Mishap
1	Your lack of tech sophistication causes you serious injury. Roll on the Injury Table, but also gain +1 to your personal TI.
2	You fall foul of a criminal gang in your naivety. You must flee, but they're after you; gain an enemy.
3	You are injured in a duel of honour; gain a rival.
4	Economic dislocation shakes your community and you must leave. Lose 1 SOC.
5	You contract a debilitating illness and leave your world to seek treatment; roll on the Injury Table, but gain an appropriate treatment from an adjacent tech index. Your next career can be off-world if you desire.
6	You are betrayed by a contact or ally, who becomes an enemy.

EXPLORER

Qualification: INT 5+, DM-1 for every previous career.

There are countless worlds out there—lifeless planets in unvisited star systems, alien worlds untouched by humankind, and lost colonies waiting for Rediscovery. Usually the Event Horizon Probes alert the Commonality to interesting systems, but occasionally it's done the old way—one starship at a time. Explorers may work for the Communications Instrumentality, the Space Force Instrumentality, or a rediscovered world or non-Commonality culture. They may even work for a group of New Traders or a corporacy following the Event Horizon Probes and seeking new markets, or for a research institution, employing archaeologists or xenobiologists to explore strange new worlds. More recently, some T9 Fringe polities have begun sending out their own explorers.

SPECIALISATION: ARCHAEOLOGIST

There are worlds out there with thousands of years of human history—some still inhabited, others blasted to vacuum or failed and overgrown. That means ruins—and treasure, most of which is metaphorical, but some literal. Space Force and SCI Force aren't the only ones employing archaeologists in the wake of contact efforts—some are freelance scholars, others hunt for more than just knowledge.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world or Fringe polity).

Longevity Package: 7+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 8+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

SPECIALISATION: CONTACT SPECIALIST

Once the Event Horizon Probes and the "bugs and slugs" of the Evaluation Bureau have done their jobs, the Contact Bureau takes over (page 199). The most scientific and least frightening of the SCI Force bureaus, it can nevertheless be ruthless in its operations.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world).

Longevity Package: 9+ (Commonality), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 7+; choice of ally (any from either the Commonality or your posting) or organisation (local government, corporacy, or instrumentality).

SPECIALISATION: SCOUT

Space Force uses scouts—individuals operating solo or with a sentient ship on exploratory missions, patrolling new space lanes, visiting outlying star systems and early-stage synthetic colonies, and acting as couriers and on miscellaneous duties where infrastructure is thin. Some Fringe polities also employ scouts.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world or Fringe polity).

Longevity Package: 10+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 8+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

Table 3-32: Explorer Career Progress

Specialisation	Survival	Advancement	Longevity
Archaeologist	EDU 5+	END 7+	7+ / 10+*
Contact Specialist	INT 6+	EDU 7+	9+*
Scout	END 7+	EDU 7+	10+ / 10+*

**DM-1 per additional term.*

Table 3-33: Explorer Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)
1	+1 DEX	Interface	Astrogation
2	+1 EDU	Gun Combat	Engineer
3	+1 END	Mechanic	Informatics
4	+1 INT	Jack of All Trades	Pilot
5	+1 STR	Survival	Medic
6	Melee	Vac Suit	Science

Table 3-34: Explorer Specialist Skills and Training

Roll 1D	Specialist: Archaeologist	Specialist: Contact Specialist	Specialist: Scout
1	Investigate	Diplomat	Interface
2	Language	Interface	Jack of All Trades
3	Recon	Language	Mechanic
4	Interface	Persuade	Pilot
5	Social Science	Science	Recon
6	Survival	Social Science	Science

Table 3-35: Explorer Ranks and Benefits (Archaeologist)

Rank	Specialist: Archaeologist	Skill or Benefit
0	Student	
1	Field	Social Science 1
2	Fellow	
3	Master	Investigate 1
4	Professor	
5		+1 SOC
6	Senior Professor	

Table 3-36: Explorer Ranks and Benefits (Contact Specialist)

Rank	Specialist: Contact Specialist	Skill or Benefit
0	Researcher	
1	Analyst	Social Science 1
2	Advisor	
3		Languages 1
4	Intendant	Informatics 1
5		
6		

Table 3-37: Explorer Ranks and Benefits (Scout)

Rank	Specialist: Scout	Skill or Benefit
0		
1	Courier	Vac Suit 1
2	Scout	Pilot 1
3		
4	Explorer	Science 1
5		
6	Master Scout	

Table 3-38: Explorer Mustering-out Benefits

Roll 1D	Credit	Sentient Weapon
1	20,000	Drone
2	20,000	Halo or Emulator
3	30,000	Sentient Weapon
4	30,000	Augmentation
5	50,000	Organisation
6	50,000	Ship
7	50,000	Ship

Table 3-39: Explorer Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	You discover a lost colony or alien civilisation. Gain an ally and +1 SOC.
4	Your ship is attacked by pirates or enemy vessels. Gain an enemy. Roll Pilot 8+ to flee, or Persuade 10+ to negotiate. On a success, gain one of Gunner 1 or Sensors 1; on a failure, your ship is destroyed and you must spend the next term as a Downtecher (your choice), Rogue, or Spacer (pirate) as you make your way home.
5	You spend time on a recently rediscovered world. Gain one of Diplomat 1, Interface (sensors) 1, Recon 1, Science 1, or Social Science (anthropology) 1.
6	You discover a lost colony. Roll Social Science (anthropology), Stealth, or Survival 8+ to avoid injury (and a roll on the Injury Table). Gain +1 SOC, and +1 Social Science.
7	Life event.
8	You contact an alien species! Roll INT or Social Science (anthropology) 10+ to avoid injury. On a success, gain +1 EDU and one of Diplomat 1, Science 1, or Social Science 1. On a failure, gain one of Science 1, Interface (sensors) 1, or Survival 1 and roll on the Injury Table.
9	You spend time deep in the Fringe. Gain a contact in a non-Commonality culture—even an alien species—and roll Pilot or Survival 8+ to gain +1 skill of your choice. Failure means you are injured (roll on the Injury Table).
10	You become involved in delicate intercultural negotiations. Gain +1 Diplomat, and an ally. If you like, you may automatically qualify for the Diplomat career next term.
11	As (8) but it's a species of great strategic or cultural interest. In addition to other events, you also gain a DM+2 on your next advancement roll.
12	Automatic promotion.

Table 3-40: Explorer Career Mishaps

Roll 1D	Mishap
1	You're involved in an atrocity with an alien or highly divergent hominid species. Gain them as an ally or enemy, and +1 Science.
2	A ship malfunction leaves you with severe mental trauma. Roll on Table 3-105: Mindburn (page 75).
3	You are severely injured in a failed jump (page 145).
4	You are attacked by pirates in a far-flung part of space; spend the next term as a Downtecher, and gain +1 Survival.
5	Your stasis pod is found drifting, your ship gone. You were missing for 1d6 x 1d6 years; no one knows what happened. Gain a mystery.
6	You are injured, roll on the Injury Table.

INSTALLATION

Qualification: Must belong to the **installation** genotype; qualification is by specialisation, DM-1 for every previous career. Switching between specialisations is less traumatic than switching between different types of synthetic, but characters who do so must make an Average (8+) INT check, failure means that they must roll on Table 3-106: Eidolon Crisis (page 76).

Installations include city sentiences, sentient starships like Mindjammers, and the node minds that maintain the workings of the Mindscape. This career generates the synthetic's core corpus which then plugs into various options. It has characteristics, skills, and augmentations like any other character. See synthetic installations (page 32) for more detail on this type of character.

SPECIALISATION: MEDIATOR

Qualification: *Tactics 7+.*

Commonality fleets have an advantage over foes like the Venu: their sentient starships are in near-instantaneous contact via Mindscape, coordinating attacks and manoeuvres. Overseeing this coordination, offering advice and harmonising actions, are the **mediators** or **fleet sentiences**. A mediator character is an installation sentience operating within a fleet of vessels (usually, but not always, starships belonging to Space Force), and usually the flagship with command rank. If the GM wishes to run a military campaign, then this specialisation is a good choice for an installation character's final career, otherwise, the character should choose another specialisation for their final career. Often these sentiences are based in a *Nautilus*-class manowar (page 175).

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world).

Longevity Package: 10+ (Commonality), DM-1 per additional term.

Extensions: INT 8+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 7+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

SPECIALISATION: NODE MIND

Qualification: *Informatics 6+ if installation genotype; or Informatics 9+ for other synthetics.*

Node minds are born administrators, controlling Mindscape nodes and the satellites of a star system's Mindscape instance. They are patient and wise, content to observe and transmit the thoughtcast communications of a whole planet without participating except when required. Node mind characters have the disadvantage of being tied to a single star system.

Tech: T8-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world or Fringe polity).

Longevity Package: 2+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 8+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 7+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

SPECIALISATION: SENTIENT STARSHIP

Qualification: *Auto if installation genotype; or Informatics 9+ for other synthetics.*

With the exception of the unstable Venu starships, all starships are sentient. Sentient starship characters usually have specific personal goals, and team up with similar-minded crews, more like a member with an equal say than a vehicle. Any installation character who serves as a sentient starship as their last term as an installation, and who does not convert to another genotype before the end of character generation is by definition housed in a starship. The character can choose any of the following: *Adam Smith*-class merchant, *Botany Bay*-class Stage II Explorer, *Herald*-class Fast Courier, *Keynes*-class subsidised freighter, *Profit*-class New Trader, *Prospector*-class mining vessel, or a Surveillance Ship (see **Chapter 8: Starships and Space Stations**, page 139, for more information on these vessels).

Note: Both the *Keynes*-class subsidised freighter and the *Botany Bay*-class Stage II Explorer are vessels with crews of at least several dozen. If your character is housed in one of these starships, then all of the characters are all part of a larger crew rather than a small group of characters who are the sole crewmembers of the starship character. The GM and players should discuss whether they wish their characters to be part of a larger crew in this way before the installation character selects this option.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world or Fringe polity).

Longevity Package: 10+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 8+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 8+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

Table 3-41: Installation Career Progress

Specialisation	Survival	Advancement	Longevity
Mediator	INT 7+	SOC 9+	10+*
Node Mind	SOC 6+	EDU 9+	2+ / 10+*
Sentient Starship	SOC 5+	INT 10+	10+ / 10+*

**DM-1 per additional term.*

Table 3-42: Installation Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)
1	+1 DEX	Admin	Advocate
2	+1 EDU	Carouse	Broker
3	+1 EDU	Informatics (Mindscape)	Interface
4	+1 INT	Interface	Social Science
5	+1 INT	Language	Science
6	Jack of All Trades	Pilot	Steward

Table 3-43: Installation Specialist Skills and Training

Roll 1D	Specialist: Mediator	Specialist: Node Mind	Specialist: Sentient Starship
1	Advocate	Admin	Astrogation
2	Deception	Diplomat	Engineer
3	Diplomat	Engineer	Gunner
4	Informatics (Mindscape)	Informatics (Mindscape)	Interface
5	Leadership	Medic (redaction)	Persuade
6	Tactics	Social Science	Pilot

Table 3-44: Installation Ranks and Benefits (Mediator)

Rank	Specialist: Mediator	Skill or Benefit
0	Researcher	
1	Analyst	Tactics 1
2	Mediator Counsel	Advocate 1
3	Mediator Envoy	Diplomat 1
4	Fleet Mediator	
5	Mediator Admiral	+1 SOC
6	Mediator Admiral-General	

Table 3-45: Installation Ranks and Benefits (Node Mind)

Rank	Specialist: Node Mind	Skill or Benefit
0		
1	Node Admin	Interface 1
2		
3		Informatics (Mindscape) 1
4	Dirigeant	
5		Informatics (Mindscape) 1
6	System Mindscape Director	+1 SOC

Table 3-46: Installation Ranks and Benefits (Sentient Starship)

Rank	Specialist: Sentient Starship	Skill or Benefit
0		
1	Ship Sentience	Pilot 1
2		Astrogation 1
3		
4		+1 EDU
5		
6	Hypersentience	+1 INT

Table 3-47: Installation Mustering-out Benefits

Roll 1D	Credit	Avatar
1	20,000	Vehicle or Drone
2	20,000	Augmentation
3	30,000	Halo
4	50,000	Augmentation or Emulator
5	100,000	Organisation
6	100,000	A technological breakthrough item of the next TI above yours.
7	200,000	Organisation

Table 3-48: Installation Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishaps table, but you are not ejected from this career.
3	You spend a great deal of time in your humanoid avatar. Gain a human or humanoid ally. Roll Streetwise or Survival 8+: on a failure, your avatar is destroyed; on a success, gain +1 in a skill for your avatar (see Extensions, page 110).
4	You are invited into a secretive transhuman cabal. If you accept, gain an ally; if you refuse, gain an enemy. Roll Deception or Diplomat 8+: on a success, gain a secret (page 76); on a failure, you're injured and must roll on the Injury Table, replacing STR with INT and END with EDU.
5	You spend time exploring your physical nature. Gain one of Engineer 1, Interface 1, or Science 1.
6	You see major combat action. Roll Gunner, Leadership, or Pilot 8+: on a failure, you are injured; on a success, gain one of Gunner 1, Pilot 1, or Tactics 1.
7	Life event.
8	You are relocated to the Fringe. Roll Diplomat or Persuade 8+: on a success, gain one of Diplomat 1, Persuade 1, or Social Science 1; on a failure, gain one of Astrogation 1, Pilot 1, or Interface 1.
9	You establish a network of sentiences. Gain 1D3 contacts.
10	You host a major event. Roll Diplomat or Steward 8+: on a success, gain +1 SOC and a DM+1 on your next benefit roll; on a failure, gain an enemy.
11	You skirt the edges of transcendence. Gain +1 INT, and roll END 10+: on a failure, you're injured; see above and roll on the Injury Table. On a success, gain +1 to this term's benefit roll.
12	Automatic promotion.

Table 3-49: Installation Career Mishaps

Roll 1D	Mishap
1	You suffer eidolon crisis (see Table 3-106: Eidolon Crisis, page 76) and are reconfigured in a non-installation body (your choice of mechanical or organic).
2	You are involved in a disaster and are dismissed from service. Lose 1 SOC. You may try to requalify for another Installation career specialisation.
3	Your physical housing suffers catastrophic damage. You may try to requalify for another Installation career specialisation.
4	You become obsessed with human existence and resign to try it. Your next career is as a synthetic organic. This transference forces you to roll on Table 3-106: Eidolon Crisis.
5	You fall foul of political machinations and are replaced. You remove to a Fringe World and muster out.
6	You suffer extensive damage; roll on the Injury Table, but damage to STR or END instead affects INT or EDU. Only DEX, INT, or EDU can be affected by this roll.

MERCHANT

Qualification: INT 4+, DM-1 for every previous career.

Trade is a complex business in the New Commonality, as planing technology finally makes transportation of goods economically realistic between the stars. Some merchants work for corporacies, swaying whole worlds with their economic clout, but many are disreputable New Traders, plying the spacelanes of the Fringe and filling the gaps the Commonality can't reach.

SPECIALISATION: CARTEL MEMBER

Some merchants never see the day-to-day business of trade, instead spending their lives on high-level strategies in luxurious boardrooms or virtual geopolitical conspiracies affecting the fates of entire worlds. These "masters of the universe" are the high-level managers of the corporacies, and have vast resources at their disposal.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world).

Longevity Package: 7+ (Commonality), 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 8+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 8+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

SPECIALISATION: CORPORACY MERCANTILIST

Corporacy mercantilists may be captains or senior crewmembers of subsidised merchant fleets, or may be based in corporacy HQs directing strategy. They're ruthless, and often sent to set up business on newly rediscovered worlds. This specialisation is also used for creating powerful and well-connected Fringe merchants from cultures with access to starships.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world).

Longevity Package: 6+ (Commonality) / 9+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 7+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

SPECIALISATION: NEW TRADER

New Traders are viewed with suspicion by Commonality citizens; many consider them evolutionary throwbacks, little better than licensed pirates or gangsters. They perform a valuable service on Fringe and Outer Worlds, seen as a necessary evil by Pansectorate governments and as romantic heroes by local populations. They're a rough, hardy bunch who play fast and loose with the Commonality's trade and information embargoes, constantly suspected by SCI Force of harbouring spies, criminals, and perhaps even Venu agents. While the Commonality would like to control all inter-world trade, the pell-mell of the Expansionary Era makes this impossible. This specialisation is also used for creating Fringe merchants from cultures with access to starships.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world or a Fringe polity).

Longevity Package: 6+ (Commonality) / 9+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 7+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

Table 3-50: Merchant Career Progress

Specialisation	Survival	Advancement	Longevity
Cartel Member	EDU 5+	SOC 8+	7+ / 10+*
Corporacy Mercantilist	SOC 5+	INT 7+	6+ / 9+*
New Trader	INT 6+	EDU 7+	6+ / 9+*

**DM-1 per additional term.*

Table 3-51: Merchant Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)
1	+1 DEX	Broker	Admin
2	+1 END	Interface	Astrogation
3	+1 STR	Informatics (Mindscape)	Diplomat
4	Gambler	Persuade	Pilot
5	Gun Combat	Steward	Science
6	Streetwise	Vac Suit	Social Science

Table 3-52: Merchant Specialist Skills and Training

Roll 1D	Specialist: Cartel Member	Specialist: Corporacy Mercantilist	Specialist: New Trader
1	Advocate	Broker	Broker
2	Admin	Deception	Carouse
3	Deception	Diplomat	Deception
4	Diplomat	Investigate	Engineer
5	Leadership	Recon	Interface
6	Persuade	Tactics	Pilot

Table 3-53: Merchant Ranks and Benefits (Cartel Member)

Rank	Specialist: Cartel Member	Skill or Benefit
0		
1	Comptable	Admin 1
2		Advocate 1
3	Strategist	Tactics 1
4		
5	Director-General	Leadership 1
6	ExCom	

Table 3-54: Merchant Ranks and Benefits (Corporacy Mercantilist)

Rank	Specialist: Corporacy Mercantilist	Skill or Benefit
0		
1	Researcher	Informatics (Mindscape) 1
2		
3		Investigate 1
4	Resource Allocator	
5		
6	Executive Officer	+1 SOC

Table 3-55: Merchant Ranks and Benefits (New Trader)

Rank	Specialist: New Trader	Skill or Benefit
0	Crewman	
1	Senior Crewman	Mechanic 1
2	4th Officer	
3	3rd Officer	Broker 1
4	2nd Officer	
5	1st Officer	Pilot 1
6	Captain	

Table 3-56: Merchant Mustering-out Benefits

Roll 1D	Credit	Sentient Weapon
1	1,000	Halo
2	5,000	Drone
3	10,000	Emulator
4	20,000	Virtuality
5	20,000	Organisation
6	50,000	Merchant Ship
7	100,000	Merchant Ship

Table 3-57: Merchant Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	You are invited to run the Commonality embargo. If you accept, roll Deception or Persuade 8+ to gain Streetwise 1 and an extra benefit roll. If you fail, lose all benefit rolls for this career and your next career must be Downtecher or Rogue. If you refuse, gain a criminal enemy.
4	You spend time getting hands-on with your customers and suppliers. Gain one of Broker 1, Engineer 1, Informatics (Mindscape) 1, Language 1, Social Science 1.
5	You're attacked by pirates, enemies, or embargo patrols! Roll Pilot 8+ to flee, or Tactics 10+ to fight. On a failure, you're injured and your cargo is lost, and you must forfeit your benefit roll this term, but gain Melee 1 or Vac Suit 1. On a success, gain Leadership 1 or Tactics 1. Either way, you gain an enemy.
6	You make an unexpected connection outside your normal circles. Gain a contact.
7	Life event.
8	You establish a trade network. Gain 1D3 contacts.
9	You're asked to carry out clandestine espionage for your government. If you accept, gain an ally and one of Deception 1, Informatics (Mindscape) 1, or Streetwise 1. If you decline, gain an enemy and one of Deception 1, Informatics (Mindscape) 1, or Stealth 1.
10	You have great success in a trade deal. Gain a DM+1 to your benefit roll this term.
11	You gain an ally in a useful field. Gain +1 Carouse, or a DM+4 on your next advancement roll.
12	Automatic promotion.

Table 3-58: Merchant Career Mishaps

Roll 1D	Mishap
1	Injured.
2	You are bankrupted by a rival. Lose all benefits from this term, and gain the other trader as a rival.
3	You are caught in violation of the Commonality embargo. You may only take your benefits from this career by joining a Rogue career next term.
4	War or political instability destroys your market, forcing you to relocate. Gain Gun Combat 1 or Persuade 1.
5	A criminal organisation forces you out of business. Gain them as an enemy, and gain Streetwise 1.
6	A series of bad deals and decisions forces you into bankruptcy. You salvage what you can, taking one benefit roll for each term.

MILITARY

Qualification: END 5+, DM-2 if you are subject to ageing this term; DM-1 for every previous non-Military career. You may only attempt to qualify for the Assault Trooper specialisation if you've already been commissioned in another Military career specialisation.

Commission: SOC 8+.

Conflict is everywhere in the Expansionary Era, whether quelling restive Core World populations, policing problematic cultures, or conducting pre-emptive or defensive wars or peacekeeping missions on the volatile Fringe. Military characters may work for the Armed Forces Instrumentality, Space Force, or SCI Force, or may be representatives of rediscovered world or lost colony armed forces. On the Fringe, they may even be mercenaries.

SPECIALISATION: ASSAULT TROOPER

The Hi-Threat Assault (HiTAT) Trooper is an elite AFI special forces group trained for operations in theatres with a high materiel component, such as in combat against Venu combat walkers or other mobile mechanised artillery.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world).

Longevity Package: 8+ (Commonality), DM-1 per additional term.

Extensions: INT 8+ (avatar, sentinel, skill chip).

Connections: SOC 8+; choice of ally (Military), organisation (corporacy or instrumentality), or organisation (AFI).

SPECIALISATION: MARINE

Space Force marines are legendary throughout the Commonality for their military competence and ability to get the job done using precisely targeted and unyielding violence. They're usually found onboard Space Force vessels in hotspots inside the Commonality and out on the Fringe, but can also be found dirtside where local conditions demand. SCI Force also has its own marine force completely separate from that of Space Force; and other polities equally field space vessel-based troops.

Tech: T9-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world).

Longevity Package: 7+ (Commonality), DM-1 per additional term.

Extensions: INT 9+ (sentinel, skill chip).

Connections: EDU 7+; choice of ally (Military), organisation (corporacy or instrumentality), or organisation.

SPECIALISATION: SOLDIER

Far from being a monolithic military organisation, the Armed Forces Instrumentality (page 197) is a loose association of fighting forces from many worlds, from the Core to the Fringe, under the leadership of general staff sentiences and senior generals. AFI soldiers come from many different units with varying traditions, with one goal: to protect the Commonality from external threats. The Commonality was caught unprepared by the Venu War; with the AFI, it refuses to make the same mistake twice. This assignment can also be used to create soldiers from Fringe polities or mercenaries.

Tech: T9-T10 (by homeworld); T7-T9 for Fringe militaries.

Economic System: Disinterested Resource Allocation (or other if from a culture world or a Fringe polity).

Longevity Package: 9+ (Commonality) / 11+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: EDU 9+ (avatar, sentinel, skill chip).

Connections: SOC 7+; choice of ally (Military), organisation (corporacy or instrumentality), or organisation (AFI or other armed force).

Table 3-59: Military Career Progress

Specialisation	Survival	Advancement	Longevity
Assault Trooper	END 6+	EDU 7+	8+*
Marine	END 7+	EDU 5+	7+*
Soldier	STR 5+	EDU 6+	9+ / 11+*

**DM-1 per additional term.*

Table 3-60: Military Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)	Officer Skills
1	+1 DEX	Athletics	Engineer	Admin
2	+1 END	Drive or Flyer	Explosives	Advocate
3	+1 STR	Gun Combat	Informatics	Diplomat
4	Gambler	Heavy Weapons	Interface	Leadership
5	Medic	Melee	Navigation	Tactics (military)
6	Survival	Recon	Tactics (military)	Interface

Table 3-61: Military Specialist Skills and Training

Roll 1D	Specialist: Soldier	Specialist: Assault Trooper	Specialist: Starship Crew
1	Drive or Flyer	Gun Combat	Astrogation
2	Gun Combat	Heavy Weapons	Gunner
3	Mechanic	Informatics	Interface
4	Melee	Interface	Medic (redaction)
5	Stealth	Tactics (military)	Pilot
6	Survival	Vac Suit	Vac Suit

Table 3-62: Military Ranks and Benefits (Soldier NCO / Officer)

Rank	Specialist: Soldier NCO Rank	Soldier NCO Skill or Benefit	Specialist: Soldier Officer	Soldier Officer Skill or Benefit
0	Junior Trooper		Lieutenant Junior Grade	
1	Trooper	Gun Combat 1	Lieutenant	Leadership 1
2	Specialist		Captain	
3	Sergeant	Recon 1	Lieutenant Colonel	Tactics (military) 1
4	Sergeant Major		Colonel	
5	NCO	Leadership 1	Brigade Leader	
6	Senior NCO		Commander	+1 SOC / SOC 10

Table 3-63: Military Ranks and Benefits (Marine NCO / Officer)

Rank	Specialist: Marine NCO Rank	Marine NCO Skill or Benefit	Specialist: Marine Officer	Marine Officer Skill or Benefit
0	Marine		Second Lieutenant	
1	Corporal	Gun Combat 1	Lieutenant	Leadership 1
2	Assistant Squad Leader		Captain	
3	Squad Leader	Leadership 1	Lieutenant Colonel	Tactics (military) 1
4	Senior Squad Leader		Colonel	
5	Section Leader	+1 END	Sub-Commander	
6	Senior Section Leader		Commander	+1 SOC / SOC 10

Table 3-64: Military Ranks and Benefits (Assault Trooper)

Rank	Specialist: Assault Trooper	Skill or Benefit
0	Support Tech	
1	Assault Trooper	Vac Suit 1
2	Scout	Recon 1
3	HiTAT Nexus	Tactics (military) 1
4	Sergeant	
5	Gestalt Officer	Leadership 1
6	Commander	

Table 3-65: Military Mustering-out Benefits

Roll 1D	Credit	Other Benefits
1	2,000	Restricted Augmentation
2	5,000	Sentient Weapon
3	10,000	Combat Drone
4	15,000	Armour
5	20,000	Halo
6	30,000	Vehicle
7	40,000	Organisation

Table 3-66: Military Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	You are given a hostile environment assignment. Gain one of Animals 1, Engineer 1, Recon 1, Survival 1, or Vac Suit 1.
4	You are assigned to an urban warfare environment. Gain one of Athletics 1, Gun Combat 1, Sensors 1, or Tactics 1.
5	You engage in mechanised / combat walker warfare. Gain one of Drive 1, Flyer 1, Gunner 1, Heavy Weapons 1, or Vac Suit 1.
6	You experience intense ground combat. Gain one of Gun Combat 1 or Tactics 1.
7	Life event.
8	You are given advanced specialist training. Throw 8+ to increase any one of your skills by +1.
9	You are assigned to an orbital hab or plateworld environment. Gain one of Athletics (dexterity) 1, Pilot 1, or Vac Suit 1.
10	You engage in warfare against alien opponents. Gain one of Interface (remote ops) 1, Recon 1, or Science (xenology) 1.
11	You engage in siege warfare. Gain one of Engineer 1, Explosives 1, Gunner 1, or Heavy Weapons 1.
12	You engage in mobile warfare. Gain one of Drive 1, Flyer (grav) 1, or Vac Suit 1.

Table 3-67: Military Career Mishaps

Roll 1D	Mishap
1	You are severely injured in action. Take result (2) on the Injury Table, or roll twice.
2	Your unit is slaughtered and you blame your commander. Gain him as an enemy—he ruined your career.
3	Posted to a strife-torn rediscovered world, you engage in internecine warfare. Gain +1 Recon or Survival, and the people of that world as an enemy.
4	You're caught up in a dubious conflict, where your side is the in the wrong. The issue is being covered up. Either take this term's benefit (with +1 to your benefit roll) as payment for your loyalty and silence, or take the side of the oppressed underdog, lose your benefit, and gain the people as an ally.
5	A personal rivalry leads you into a court martial offence. You're discharged, lose your benefit for this term, and gain a rival.
6	You're injured. Roll on the Injury Table.

ROGUE

Qualification: Auto.

The Commonality likes to think of itself as a monolithic utopia, where everyone is cared for and no one is excluded from the pansentient projects of Expansion and Rediscovery. This isn't true: all across the Commonality, from the teeming continent-spanning metroplexes of the Core Worlds to the neglected backwaters of the Fringe World space lanes, people fall through the cracks, living by their wits and forming vibrant subcultures far from the Commonality's dreams of benevolent supervision.

SPECIALISATION: ENTERTAINER OR ZEALOT

Entertainers range from classically trained and enhanced dancers in the stadia of Jiva, whose bodies themselves are works of art, to singers and dancers in just about every starport bar across the Fringe. Entertainer characters are often on the move, with a network of contacts seemingly on every world; and, when the work's thin, they do a little other business on the side.

If their art is acting, public speaking, or writing, this specialisation can also be used for zealots, who are increasingly common. Zealots are fanatical supporters of a particular meme, promoting it wherever they go, often at considerable personal cost and even danger. The Commonality discourages such activities—so zealots are likely to be underground, too.

Tech: T4-T10 (by homeworld).

Economic System: Any.

Longevity Package: 8+ (Commonality) / 11+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, skill chip (if T8+)).

Connections: SOC 7+; choice of ally or organisation (corporacy, criminal, instrumentality, other).

SPECIALISATION: GANGSTER

Commonality sentiences and Mindscape sentinels constantly look out for organised crime networks, and as a result such networks are the most close-mouthed, paranoid, and overviolent bunch of sociopaths and psychopaths you could never hope to meet. On the Fringe, gangsters are more common—but they're falling like cut wheat before their fearsome Commonality brethren.

Tech: T6-T10 (by homeworld).

Economic System: Any.

Longevity Package: 7+ (Commonality) / 9+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 10+ (avatar, emulator, sentinel, skill chip (if T8+)).

Connections: SOC 7+; choice of ally or organisation (corporacy, criminal, or instrumentality).

SPECIALISATION: UNDERWORLDER

People fall between the cracks of Commonality society everywhere, and end up in the underworlds—subcultures, underclasses, hidden cities of desperate individuals living on their wits and whatever drops down from above. Many underworlders are xenomorphs, but in the chaos of the Expansionary Era, anyone can find themselves in a benighted world where the protections and comforts of everyday life are suddenly gone.

Tech: T5-T10 (by homeworld).

Economic System: Confiscation, Interested Resource Allocation, Regulated Money Economy (rare), Unregulated Money Economy.

Longevity Package: 11+ (Commonality) / 12+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 10+ (avatar, emulator, sentinel, skill chip (if T8+)).

Connections: SOC 7+; choice of ally or organisation (gang or criminal).

Table 3-68: Rogue Career Progress

Specialisation	Survival	Advancement	Longevity
Entertainer	SOC 6+	INT 6+	8+ / 11+*
Gangster	END 6+	INT 7+	7+ / 9+*
Underworlder	INT 5+	END 6+	11+ / 12+*

**DM-1 per additional term.*

Table 3-69: Rogue Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)
1	+1 DEX	Athletics	Advocate
2	+1 END	Deception	Broker
3	Carouse	Gun Combat	Informatics
4	Gambler	Recon	Interface
5	Melee	Stealth	Investigate
6	Persuade	Streetwise	Medic

Table 3-70: Rogue Specialist Skills and Training

Roll 1D	Specialist: Entertainer/Zealot	Specialist: Gangster	Specialist: Underworlder
1	Art	Gun Combat	Carouse
2	Art	Drive or Flyer	Jack of All Trades
3	Diplomat	Interface	Mechanic
4	Drive or Flyer	Melee	Melee
5	Persuade	Persuade	Stealth
6	Streetwise	Streetwise	Streetwise

Table 3-71: Rogue Ranks and Benefits (Entertainer)

Rank	Specialist: Entertainer	Skill or Benefit
0		
1		Art 1
2		
3	Performer	Diplomat 1
4		
5	Superstar	+1 SOC
6		+1 SOC / SOC 10

Table 3-72: Rogue Ranks and Benefits (Gangster)

Rank	Specialist: Gangster	Skill or Benefit
0		
1	Gang Member	Gun Combat 1 or Melee 1
2		
3	Gang Leader	Persuade 1
4		
5	Crime Lord	Leadership 1
6		

Table 3-73: Rogue Ranks and Benefits (Underworlder)

Rank	Specialist: Underworlder	Skill or Benefit
0		
1	Runner	Athletics 1
2		Stealth 1
3		Informatics 1
4	Fixer	
5		Leadership 1
6	Boss	

Table 3-74: Rogue Mustering-out Benefits

Roll 1D	Credit	Other Benefits
1	1,000	Halo
2	5,000	Sentient Weapon
3	10,000	Emulator
4	10,000	Drone
5	50,000	Vehicle
6	100,000	Ship
7	100,000	Organisation

Table 3-75: Rogue Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	You're arrested and charged. If you defend yourself, roll Advocate 8+ to have the charges dropped: on a failure, lose 1 benefit roll and gain the Law-Abiding flaw. If you engage a defence advocate, lose 1 benefit roll and gain the advocate as a contact.
4	You're involved in some shady misappropriation of resources. Gain one of Informatics 1, Interface 1, or Persuade 1.
5	You find yourself involved with an alien conspiracy. Roll Diplomat or Persuade 8+ to avoid injury, and gain an ally and +1 Social Science (sophontology).
6	You have the chance to backstab a colleague for your own gain. If you do so, gain a DM+4 to your next advancement check, and gain an enemy; otherwise gain the colleague as an ally.
7	Life event.
8	You get into a firefight! Roll Gun Combat or Stealth 8+ to avoid injury, and gain one of Athletics 1, Gun Combat 1, or Melee 1. If you fail, roll on the Injury Table.
9	You get in deep with illegal skulduggery. Gain a black chip (page 105), 1D3 contacts, and a security enforcement agency as an enemy. If you did not previously possess a Mindscape implant, you gain one. Reroll if you possess the Implant Reject flaw.
10	You fall foul of the law. Roll Advocate or Persuade 8+ to defend yourself: on a failure, lose your next benefit roll and gain the Law-Abiding flaw. Or hire a defence, costing you your next benefit roll and giving you an ally.
11	You're "adopted" by a criminal "boss". Roll Streetwise 8+ to avoid injury. Gain one of Streetwise 1 or Tactics 1, or a DM+4 to your next advancement roll.
12	Automatic promotion.

Table 3-76: Rogue Career Mishaps

Roll 1D	Mishap
1	You are betrayed by a friend. A contact or ally becomes an enemy, or you gain an enemy.
2	You witness something you shouldn't have and narrowly escape with your life. You're injured, and must start a new life far away. Gain an enemy and a secret.
3	You're involved in a scandal. Lose 1 SOC and become notorious.
4	A tour, job, or expedition leaves you stranded far from home. Gain one of Persuade 1, Streetwise 1, or Survival 1.
5	Hard times cost you everything, leaving you a refugee. Lose 1 SOC, and next career is Rogue (underworlder).
6	Events force you to flee for your life and hide. Your next career must be Downtecher.

SCI-TECH

Qualification: INT 6+, DM-1 for every previous career.

Every instrumentality needs scientists, just as pretty much every ship or shipyard needs engineers. Maybe you work with your hands, putting buildings, people, or synthetics back together; maybe you're a virtualist or a theoretician, spending most of your time in the Mindscape.

SPECIALISATION: GENURGIST

Most Commonality genurgists are Chembu, but not all. Genurgist characters may enhance other characters, and even create new enhancements. They're likely to be enhanced themselves, seeing their own bodies as living laboratories. Some work on starships or remote bases, acting as physicians in addition to providing augmentations.

Tech: T9-T10 (by homeworld); T6-T9 for Fringe world genurgists.

Economic System: Disinterested Resource Allocation (or other if from a culture world or a Fringe polity).

Longevity Package: 6+ (Commonality) / 9+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel (if T8+), skill chip).

Connections: SOC 8+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

SPECIALISATION: RESEARCHER

Although you spend some of your time in laboratories, you also must regularly journey to remote, often dangerous locations to gather important data.

Tech: T9-T10 (by homeworld); T5-T9 for Fringe world researchers.

Economic System: Disinterested Resource Allocation (or other if from a culture world or a Fringe polity).

Longevity Package: 7+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, skill chip (if T8+)).

Connections: SOC 9+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

SPECIALISATION: ENGINEER

Small starships often combine the roles of pilot and engineer, or include repair drones. Larger vessels require dedicated engineers—even teams of them—to keep ships functioning physically and mentally as they navigate the perils of 2-space. These same engineers can also find work managing, repairing, and upgrading equipment on space stations, orbital cities, or even on vast constructs like plateworlds.

Tech: T9-T10 (by homeworld); T7-T9 for Fringe world engineers.

Economic System: Disinterested Resource Allocation (or other if from a culture world or a Fringe polity).

Longevity Package: 7+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel (if T8+), skill chip).

Connections: SOC 9+; choice of ally (Commonality) or organisation (corporacy or instrumentality).

Table 3-77: Sci-Tech Career Progress

Specialisation	Survival	Advancement	Longevity
Genurgist	EDU 4+	INT 8+	6+ / 9+*
Researcher	END 6+	INT 7+	7+ / 10+*
Starship Engineer	INT 6+	EDU 7+	7+ / 10+*

**DM-1 per additional term.*

Table 3-78: Sci-Tech Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 10)
1	+1 DEX	Engineer	Admin
2	+1 EDU	Interface	Diplomat
3	+1 INT	Informatics	Engineer
4	+1 SOC	Investigate	Medic
5	Drive or Flyer	Mechanic	Science
6	Informatics (Mindscape)	Science	Social Science

Table 3-79: Sci-Tech Specialist Skills and Training

Roll 1D	Specialist: Genurgist	Specialist: Researcher	Specialist: Starship Engineer
1	Advocate	Investigate	Athletics (dexterity)
2	Broker	Mechanic	Engineer
3	Interface	Science	Interface
4	Medic	Social Science	Mechanic
5	Science (biology)	Survival	Pilot
6	Science (genurgy)	Vac Suit	Vac Suit

Table 3-80: Sci-Tech Ranks and Benefits (Genurgist)

Rank	Specialist: Genurgist	Skill or Benefit
0		
1	Apprentice	Science (biology) 1
2	Probationer	Medic 1
3		
4	Genurgist	Science (genurgy) 1
5	Master Genurgist	+1 SOC
6		

Table 3-81: Sci-Tech Ranks and Benefits (Field Scientist)

Rank	Specialist: Field Scientist	Skill or Benefit
0		
1	Assistant Researcher	Science 1 or Social Science 1
2	Junior Technician	
3		Informatics 1
4	Senior Researcher	
5		Investigate 1
6	Team Leader	

Table 3-82: Sci-Tech Ranks and Benefits (Starship Engineer)

Rank	Specialist: Starship Engineer	Skill or Benefit
0		
1	Apprentice	Vac Suit 1
2		Mechanic 1
3	Engineer	Engineer 1
4		
5	Chief Engineer	+1 SOC
6		

Table 3-83: Sci-Tech Mustering-out Benefits

Roll 1D	Credit	Other Benefits
1	5,000	Augmentation
2	10,000	Drone
3	20,000	Virtuality
4	30,000	Halo
5	40,000	Lab
6	60,000	Organisation
7	100,000	Ship

Table 3-84: Sci-Tech Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	You're called upon to perform research that goes against your conscience. Accept, and gain an extra benefit roll, +1 in any two Science skills specialties, an enemy, and a secret; or refuse, and gain an ally and an enemy. Roll Diplomat or Stealth 8+ to avoid injury.
4	You're involved in breakthrough research. Gain one of Informatics 1 and Science 1, and roll Diplomat 8+. On a success, gain an ally; on a failure, gain an enemy. Either way, increase your personal tech index by +1 (to a maximum of T10).
5	Bureaucracy holds you back. Gain one of Admin 1, Advocate 1, Diplomat 1, or Informatics 1, and lose your benefit roll this term.
6	You're attacked by science conservatives. Roll any combat skill or Stealth 8+ to avoid rolling on the Injury Table, and also gain one of Gun Combat 1, Melee 1, or Tactics 1.
7	Life event.
8	You gain advanced training in a specialist field. Throw EDU 8+ to increase any skill by +1.
9	You have the opportunity to cheat to further your career. If you refuse, you gain nothing. If you accept, roll Admin or Deception 8+. If you succeed, gain an enemy, but also a DM+2 to any benefit roll and +1 to any skill. If you fail, you also gain an enemy, but lose 1 benefit roll.
10	You win prizes and recognition for your work; gain a DM+1 to any benefit roll, and your next advancement roll.
11	An advanced transhuman sentience takes you under its wing. Gain +1 INT, an ally, and a mystery.
12	Automatic promotion.

Table 3-85: Sci-Tech Career Mishaps

Roll 1D	Mishap
1	You're severely injured in a lab experiment gone wrong. Roll on the Injury Table, and gain a mystery or secret (page 76).
2	You fall foul of "office politics" and are sacked. Gain a rival.
3	You're the victim of a failed assassination attempt resulting from your work. Gain an enemy and roll on the Injury Table.
4	You make a terrible mistake, resulting in deaths. Cover it up, gaining +1 Deception and a secret, but stay in your career; or admit it, resign, and gain +1 Streetwise and an enemy.
5	You are injured; roll on the Injury Table.
6	A mission leaves you stranded far from home. Your next career must be Downtecher.

SECURITY

Qualification: INT 6+, DM-1 for every previous career. However, characters attempting to become culture agents do not suffer a DM-1 for either the Downtecher or the Rogue career.
Commission (Culture Agents only): 10+ (DM = terms served).

Maybe you're a SCI Force agent, or a Mindscape hacker working for (or against) a corporacy, or maybe you're a thief or a spy from a non-Commonality culture, working for the Internal Security Instrumentality, or for the Communications Instrumentality gathering information beyond the Fringe.

SPECIALISATION: AGENT

An uneasy threatened peace is maintained across the Commonality by the agents of its instrumentalities: the culture agents of SCI Force, responsible for monitoring, managing, and mitigating the conflicts which occur when the cultures encountered by Expansion come into contact with Commonality worlds; the agents of CORESEC and the ISI, charged with policing, intelligence, and internal security; the technopsi agents of the Communications Instrumentality; and more. Agent characters enjoy great leeway in accepted backgrounds and behaviours, and are often recruited from Fringe Worlds themselves, but much is expected from them in return.

Tech: T5-T10 (by homeworld).

Economic System: Disinterested Resource Allocation (or other if from a culture world or a Fringe polity).

Longevity Package: 6+ (Commonality), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel (if T8+), skill chip).

Connections: SOC 7+; choice of ally or organisation (corporacy or instrumentality).

SPECIALISATION: MINDSCAPER

Mindscapers are specialists in the manipulation of the Mindscape and its contents. Their motives may vary widely, ranging from **hackers** breaking into restricted content or imposalities (page 134), to **redactors** who manipulate the Mindscape's very structure, modifying fictionals, invading haloes, and stealing or removing memories and abilities from connected individuals, either for their own ends, or to redact the exomemories of those damaged by mindburn (page 75). Mindscapers automatically begin the first term of their career with a special ops / black chip (page 105), but must give up a single benefit roll in return.

Tech: T8-T10 (by homeworld).

Economic System: Any.

Longevity Package: 7+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 8+ (Any).

Connections: SOC 9+; choice of ally or organisation (corporacy, criminal, or instrumentality).

SPECIALISATION: THIEF

Thievery is still a surprisingly popular occupation in the Commonality, and more so on Fringe and Outer Worlds. Commonality thieves have excellent technical expertise to bypass security measures, but that doesn't stop them stealing the same old things—wealth, precious materials, and valuable items—although information brokers are sometimes little different from spies. This assignment can also be used for freelance spies, whose work is often quite similar.

Tech: T5-T10 (by homeworld).

Economic System: Any.

Longevity Package: 8+ (Commonality) / 11+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 10+ (avatar, emulator, sentinel (if T8+), skill chip).

Connection: SOC 7+; choice of ally or organisation (corporacy, criminal, or instrumentality).

Table 3-86: Security Career Progress

Specialisation	Survival	Advancement	Longevity
Agent	INT 7+	EDU 7+	6+*
Mindscaper	INT 7+	DEX 8+	7+ / 10+*
Thief	INT 5+	DEX 6+	8+ / 11+*

**DM-1 per additional term.*

Table 3-87: Security Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)	Controller Skills (Agents)
1	+1 DEX	Deception	Advocate	Admin
2	+1 END	Gun Combat	Informatics	Interface
3	+1 INT	Investigate	Interface	Diplomat
4	Gun Combat	Persuade	Language	Language
5	Drive or Flyer	Stealth	Medic	Leadership
6	Melee	Survival	Social Science	Tactics

Table 3-88: Security Specialist Skills and Training

Roll 1D	Specialist: Agent	Specialist: Mindscaper	Specialist: Thief
1	Diplomat	Gun Combat (mindburn)	Athletics (dexterity)
2	Investigate	Informatics (Mindscape)	Deception
3	Persuade	Interface	Interface
4	Recon	Investigate	Recon
5	Social Science	Recon	Stealth
6	Tactics	Streetwise	Streetwise

Table 3-89: Security Ranks and Benefits (Agent / Controller)

Rank	Specialist: Agent	Agent Skill or Benefit	Specialist: Agent Controller	Controller Skill or Benefit
0			Agent	
1	Agent	Persuade 1	Staff Agent	Language
2			Advisor	
3	Field Agent	Recon 1		Diplomat 1
4		Investigate 1	Controller	
5	Special Agent			Leadership 1
6				+1 SOC

Table 3-90: Security Ranks and Benefits (Mindscaper)

Rank	Specialist: Mindscaper	Skill or Benefit
0		
1		Investigate 1
2		Gun Combat (mindburn) 1
3	Mindjacker	
4		Informatics (Mindscape) 1
5		
6		

Table 3-91: Security Ranks and Benefits (Thief)

Rank	Specialist: Thief	Skill or Benefit
0		
1		Stealth 1
2		
3		Streetwise 1
4		
5		Recon 1
6		

Table 3-92: Security Mustering-out Benefits

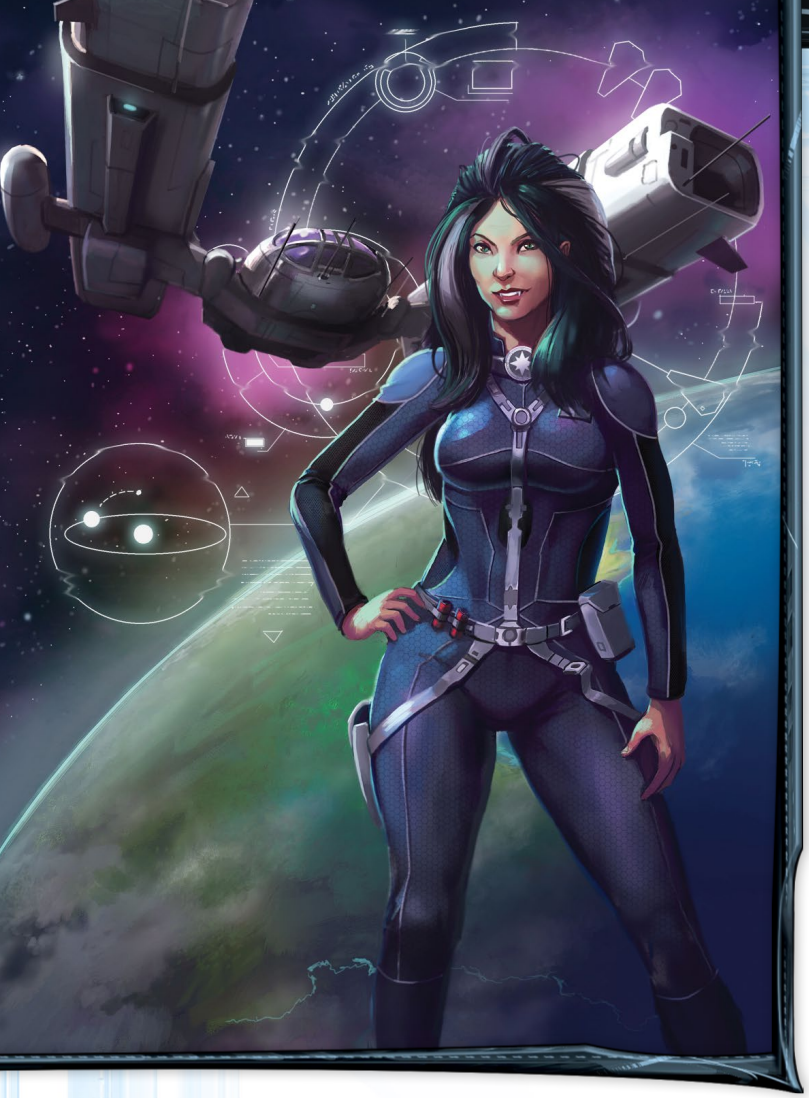
Roll 1D	Credit	Sentient Weapon
1	1,000	Restricted Augmentation
2	2,000	Sentient Weapon
3	5,000	Halo
4	7,500	Virtuality
5	10,000	Drone
6	25,000	Organisation
7	50,000	Ship

Table 3-93: Security Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you are not ejected from this career.
3	A job suddenly turns dangerous. Roll Streetwise or Informatics (Mindscape) 8+. On a failure, roll on the Mishap table; on a success, gain one of Deception 1, Gun Combat 1, Melee 1, Persuade 1, or Tactics 1.
4	You snatch victory from the jaws of defeat. Gain a DM+1 on your next benefit roll, and automatically succeed on your next advancement roll.
5	You establish a network of contacts. Gain 1D3 contacts.
6	You receive advanced specialist training. Roll EDU 8+ for a +1 to any of your skills.
7	Life event.
8	You undertake an undercover mission. Roll Deception 8+. You may task chain this roll with Informatics. On a success, roll on the Civilian or Rogue events table, and roll for one skill on any specialist skill table for that career. On a failure, roll on the Mishap table for that career.
9	You get into a feud with a rival organisation. Roll Gun Combat, Stealth 8+. On a failure, roll on the Injury Table; on a success, gain an extra benefit roll. Either way, you gain a rival.
10	You spend a great deal of time travelling Mindscape virtualities. Roll Informatics (Mindscape) 8+: on a success, gain +1 Informatics (Mindscape) and a Mindscape-based ally; on a failure, roll on Table 3-105: Mindburn (page 75), and gain a Mindscape-based enemy.
11	One of your seniors considers you his protégé. Gain Tactics 1, or a DM+4 to your next advancement roll.
12	Automatic promotion.

Table 3-94: Security Career Mishaps

Roll 1D	Mishap
1	You are found on another world with a gap in your memory and no idea what happened. Gain a mystery (page 76).
2	Your cover is blown and you must start a new life with a new identity. Gain one of Art (acting) 1 or Deception 1, and adopt a cover culture, homeworld, and name.
3	You are severely injured in the line of duty, roll on the Injury Table.
4	A job goes wrong and you find yourself forced to help the opposite side. Join them and gain them as an ally, losing this term's benefit; or betray them, keep this term's benefit, and gain them as an enemy.
5	Uncover a terrible Mindscape secret and be embargoed (page 133). Either continue without Mindscape access, or gain a black chip and your former career (this one) as an enemy.
6	A job goes wrong and your loved ones are swept up in it. Roll twice on the Injury Table for a contact, ally, or family member.



SPACER

Qualification: DEX 6+, DM-1 for every previous career.

You may be a squeaky clean pilot working for Space Force, a hard-as-nails asteroid miner grubbing for a claim, a commerce raider out on the Fringe, or any of the above, pressed into service with SCI Force.

SPECIALISATION: BELTER

Many belters are Hydragand-Dezimeer (page 28); those that aren't are just as often mechanical as organic, sometimes even a single mining vessel operating solo with a flotilla of drones. Some people like the life on the prospecting frontier—it's ideal for solitary personalities to hook up with a like-minded ship and no other interference.

Tech: T7-T10 (by homeworld).

Economic System: Any.

Longevity Package: 8+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel (if T8+), skill chip).

Connections: SOC 9+; choice of ally or organisation (corporacy or instrumentality).

SPECIALISATION: PIRATE/SCAVENGER

It's harder to lead the life of a pirate than a gangster, and freebooters are largely unknown within the Commonality. On the porous Fringe, however, and especially near the Successor States and the Venu Q-Zone, there are places where ruthless pirates prey on New Traders, colonists, and the usual traffic of the space lanes. Space Force tries to suppress piracy, but some have received letters of marque as long as they act against the Commonality's foes. Also, political instability can make a system a burgeoning colony one year and a rubble-strewn wasteland the next. Scavenger characters thrive in this environment, combing battlefields and seeking out failed colonies and disaster zones, salvaging and repairing ships, weapons, and equipment for sale or barter. Many pirates also work as scavengers, and some scavengers take up piracy when they can.

Tech: T7-T10 (by homeworld).

Economic System: Confiscation, Interested Resource Allocation, Planned Economy (rare), Regulated Money Economy (rare), Unregulated Money Economy.

Longevity Package: 9+ (Commonality) / 11+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 10+ (avatar, emulator, sentinel (if T8+), skill chip).

Connections: SOC 7+; choice of ally or organisation (corporacy, criminal, or instrumentality).

SPECIALISATION: STARSHIP CREW

You're a starship pilot or a member of the crew of a starship who possesses at least some pilot training. There are two types of starship pilots in ***Mindjammer***: 2-pilots and n-pilots. 2-pilots pilot ships faster-than-light through 2-space (between star systems, page 140), while n-pilots do so slower-than-light, usually within a single star system, through n-space or normal space.

Tech: T9-T10 (by homeworld).

Economic System: Any.

Longevity Package: 9+ (Commonality) / 10+ (elsewhere, TI permitting), DM-1 per additional term.

Extensions: INT 9+ (avatar, emulator, sentinel, skill chip).

Connections: SOC 8+; choice of ally or organisation (corporacy or instrumentality).

Table 3-95: Spacer Career Progress

Specialisation	Survival	Advancement	Longevity
Belter	END 6+	DEX 6+	8+ / 10+*
Pirate	END 5+	INT 6+	9+ / 11+*
Starship Pilot	INT 7+	SOC 6+	9+ / 10+*

**DM-1 per additional term.*

Table 3-96: Spacer Skills and Training

Roll 1D	Personal Development	Service Skills	Advanced Education (min EDU 8)
1	+1 DEX	Athletics	Astrogation
2	+1 END	Carouse	Engineer
3	+1 INT	Interface	Informatics (Mindscape)
4	+1 STR	Mechanic	Medic
5	Gun Combat	Pilot	Language
6	Jack of All Trades	Vac Suit	Science

Table 3-97: Spacer Specialist Skills and Training

Roll 1D	Specialist: Belter	Specialist: Pirate	Specialist: Starship Crew
1	Athletics	Deception	Astrogation
2	Broker	Gun Combat	Gunner
3	Interface	Gunner	Interface
4	Pilot	Melee	Medic (redaction)
5	Profession (belter)	Streetwise	Pilot
6	Profession (belter)	Vac Suit	Vac Suit

Table 3-98: Spacer Ranks and Benefits (Belter)

Rank	Specialist: Belter	Skill or Benefit
0		
1	Prospector	Interface 1
2	Miner	Broker 1
3		
4	Belter	Pilot 1
5		
6		

Table 3-99: Spacer Ranks and Benefits (Pirate)

Rank	Specialist: Pirate	Skill or Benefit
0		
1	Henchman	Engineer 1 or Mechanic 1
2		
3		Gunner 1 or Pilot 1
4		
5	Captain	Leadership 1
6		

Table 3-100: Spacer Ranks and Benefits (Starship Pilot)

Rank	Specialist: Starship Pilot	Skill or Benefit
0		
1	Co-pilot	Astrogation 1
2	N-pilot	Pilot 1
3		
4	2-pilot	Informatics (Mindscape) 1
5		
6		

Table 3-101: Spacer Mustering-out Benefits

Roll 1D	Credit	Other Benefits
1	1,000	Sentient Weapon
2	5,000	Halo
3	10,000	Drone
4	10,000	Virtuality
5	50,000	Augmentation
6	100,000	Ship
7	100,000	Ship

Table 3-102: Spacer Career Events

Roll 2D	Event
2	Disaster! Roll on the Mishap table, but you aren't ejected from this career.
3	Your ship is ambushed by enemy vessels. Either run, and roll Pilot 8+ to escape, or roll Persuade 10+ to bargain with them. If you fail the check, then your ship is destroyed and you may not re-enlist as a Spacer at the end of this term. If you succeed, you survive and gain Interface (sensors) 1. Either way, gain an enemy.
4	You spend several years traveling from world to world. Gain one of Astrogation 1, Interface 1, Pilot 1, or Mechanic 1.
5	You're involved in a diplomatic mission. Roll Diplomat or Persuade 8+ to gain +1 SOC or Social Science 1. On a failure, lose 1 SOC, roll on the Injury Table, and gain an enemy.
6	You're involved in a boarding action. Roll Gun Combat or Stealth 8+ to avoid injury, and gain one of Athletics (dexterity) 1, Gun Combat 1, Melee 1, Tactics (naval) 1, or Vac Suit 1.
7	Life event.
8	You're involved in a lucrative strike or voyage. Gain a DM+2 on your next benefit roll.
9	You foil a mutiny or violent uprising. Gain one of Diplomat 1 or Persuade 1, an enemy, and a DM+2 on your next advancement roll.
10	You save your starship sentience from eidolon crisis. Gain +1 INT and a DM+2 on your next advancement roll.
11	You participate in a naval engagement. Gain one of Engineer 1, Gunner 1, Interface (sensors) 1, or Pilot-1.
12	Automatic promotion.

Table 3-103: Spacer Career Mishaps

Roll 1D	Mishap
1	You're injured; roll on the Injury Table.
2	You are betrayed by a contact or ally and find yourself on the run. Gain an enemy and +1 Streetwise.
3	You come across an ancient wreck; roll on the Injury Table. You have a secret, including knowledge of the wreck's location.
4	Your ship crashes on a low tech world; your next career is automatically Downtecher (any).
5	You are caught in violation of Commonality law; lose 1 SOC and gain a secret.
6	You are psychologically damaged; roll on Table 3-105: Mindburn (page 75).

Life Events

Use the Life Events table (***Traveller Core Rulebook***, page 44), replacing the Unusual Events section with Table 3-104: Mindjammer Unusual Events.

Table 3-104: Mindjammer Unusual Events

Roll 1D	Unusual Event
1	You have an extended interaction with a powerful posthuman entity that offers you the chance to become posthuman (see page 326). If you accept, immediately increase your personal TI to T10 (or gain +1 INT if your personal TI is already T10), gain a contact, and expect to periodically be offered unusual augmentations or unique opportunities.
2	Aliens: You spend time among an alien race. Gain Science 1 and a contact among an alien race.
3	Alien Artefact: You have a strange and unusual device from an alien culture that is not normally available to humans.
4	Amnesia: Something big and important happened to you, but you don't know what it was. Gain a mystery.
5	Contact with Commonality: You briefly come into contact with the highest echelons of the Commonality—the leaders of one of the Instrumentalities or Ministries, or even a Custodian. Gain a contact.
6	Ancient Technology: You have something older than the Commonality, or even something older than humankind itself. It may have even been created by the mysterious Predecessors.

The Injury Table

See the ***Traveller Core Rulebook*** (page 47). Depending on your homeworld, TL, or career, you may be stuck with your injuries, or you may have them replaced with robotic, synthetic, or genurgic prostheses. You may optionally choose to take these replacements as augmentations, but you must pay for them out of your benefits.

The Mindburn Table

Mindburn is a form of mental injury that is most often caused by a mindburn attack (page 133) or by the damage suffered by a starship pilot or starship sentience on a failed planing (Pilot) check (page 145). Roll 1D on Table 3-105: Mindburn.

Medical Care: Restoration of lost INT or EDU costs Cr5000 per point. Removing a common flaw costs Cr10000, and treating minor amnesia costs Cr5000 and requires an Average (8+) Medic (redaction) check by the redaction specialist performing the treatment; failure means the memory loss is permanent. Common flaws gained via memoplexes (page 131), mindburn, or eidolon crisis can be easily cured, since they are not an intrinsic part of your character's psyche. However, common flaws taken as flaws, and all longevity restrictions acquired as part of a longevity package, are deep and intrinsic parts of your character's personality, and can only be removed by the sort of massive memory rewriting that risks transforming the character into a completely different person, or at minimum erasing many years of memories. As a result, flaws and longevity restrictions typically cannot be removed.

Table 3-105: Mindburn

1D	Effect
1	Gain 1 common flaw.
2	Lose 1D3 Halo skill levels[1].
3	Roll on the Eidolon Crisis Table (below).
4	Reduce INT by 1.
5	Reduce EDU by 1 and suffer minor amnesia[2].
6	Fall unconscious for 1D minutes but suffer no lasting effects.

[1] Restoring a lost halo skill level requires Mindscape access and 2D hours, or 1D hours with a successful Average (8+) Medic (redaction) skill check.
[2] The character forgets anywhere from an hour to a full day of events related to the mindburn.

The Eidolon Crisis Table

All synthetic sentiences must meet the **eidolon compliances**—the four checks of integrity, stability, and freedom from neurosis and psychosis which ensures their manufactured personalities are stable and safe. Eidolons incurring mental stress can undergo **eidolon crisis**, compromising these compliances; this may also happen to basics whose personality development exceeds parameters. Eidolon crisis is a form of mental breakdown, with symptoms ranging from mild neurosis to dangerous psychosis. A basic which suffers an eidolon crisis must roll twice on Table 3-106: Eidolon Crisis, but synthetics based on eidolons (including all synthetic characters) roll only once.

Table 3-106: Eidolon Crisis

1D	Effect
1	Gain 1 common flaw.
2	Gain 1D3 common flaws.
3	Reduce INT by 1D3.
4	Reduce EDU by 1D3 and suffer moderate amnesia[1].
5	Character becomes entirely unresponsive for 1D days but suffers no lasting effects.
6	Roll twice on this table. If 6 is rolled a second time, the character suffers from psychotic rage for 2D hours[2].

[1] Moderate amnesia causes the character to forget 1D weeks of events related to or leading up to the eidolon crisis.
[2] The character immediately attacks anyone nearby who could be a potential threat. It ignores sleeping or unconscious characters or characters in stasis, and attacks strangers, rivals, and enemies first.

Medical Care: Treating moderate amnesia costs Cr10000 and requires a Very Difficult (12+) Medic (redaction) check by the redaction specialist performing the treatment. Average or exceptional success recovers all memories, marginal success or marginal failure transforms moderate amnesia into mild amnesia, and worse failure means the amnesia is permanent.

Medical Care and Debt

In the post-scarcity society of the Commonality, medical care is free. If your Commonality character is injured during character creation, this injury is automatically and freely treated. If you want to take an augmentation instead of straight treatment, then that has a **resource point cost**. Within the Commonality, that resource cost will be in the form of calling in favours, drawing on resource allocations, or influencing people, rather than spending cash, but the effect is the same, and we track it in cash terms all the same.

If you're injured during character creation and your character is outside the Commonality, then treatment of this injury is based upon the **Economic System** (page 208) of your homeworld, current world, or current profession. Characters from disinterested or interested resource allocation societies, regulated money economies, or planned economies pay no cost for their medical treatment. Characters from worlds or in professions with unregulated money economies, confiscation economies, or barter economies must pay for their own medical treatment and may incur medical debt.

Contacts, Allies, Rivals and Enemies

For contacts, allies, rivals, and enemies, see the ***Traveller Core Rulebook*** (page 18).

Mysteries and Secrets

Mysteries and **secrets** are similar to allies or contacts, except that their nature is unknown, either to you (a mystery) or to the other players and characters (a **secret**). You can flesh out mysteries and secrets during play.

Benefits

The details of what individual benefit rolls provide are sometimes different, but rolling benefits is identical to the procedure described in the ***Traveller Core Rulebook*** (page 44).

Cash

The amount of credits you receive is modified by the economic system you used when in the specific career, and may be in the form of actual currency or a more abstract level of access to the Commonality's resource allocation systems. See "Economic Systems" on page 208 for further information about cash benefits and economic systems.

Mustering Out Benefits in Disinterested Resource Allocation Economies

Mustering out benefits are identical to those described for characters from economies which use money, except when obtaining cash. Total all cash gained and then divide this number by 20,000 to obtain the number of ***Resource Points*** *(RP) the character gains (round up). Characters can immediately exchange each RP for one Moderate item, or larger numbers of RP for Expensive items, without needing to make acquisition checks. Alternatively, characters can use some or all of these accumulated RP to immediately make an acquisition check to acquire goods before play begins. Characters retain any unused RP for later use. See page 210 for more about Resource Points and acquisition checks.*

Mustering Out Benefits in Interested Resource Allocation Economies

Mustering out benefits are identical to those described for characters from money economies, except when obtaining cash. For a SOC11+ character, divide the total cash benefits gained by 15000 to obtain the number of ***Resource Points*** *(RP) the character gains. For a SOC 10- character, divide the total by 30000. The rules for dealing with cash are otherwise identical to those for Disinterested Resource Allocation economies. See page 210 for more about Resource Points and acquisition checks.*

Other Benefits

A character may receive direct access to goods or services as a benefit. In such cases, the list cost of the item is irrelevant, and the character acquires the item automatically, regardless of his current credit level or economic system.

AUGMENTATION

Gain any unrestricted **augmentation** (page 100) with a maximum cost of Cr25000 and a TI no higher than your personal TI. If you roll this benefit again, you may take another augmentation with a maximum cost of Cr50000, or increase the one you already possess by one level (if possible).

AVATAR

You gain a synthetic body known as an **avatar**, with physical attributes identical to your own; its appearance is up to you. If you roll this benefit again, you may take another avatar, or upgrade your current avatar to be **variform**. Variform avatars may change shape to that of any roughly human-sized creature or object. You control your avatar using your Mindscape implant, and can use it almost as easily as your own body, effectively allowing you to be two places at once. See "Extensions" on page 110 for more.

DRONE

You have a single **drone** (page 107). If you lack a Mindscape implant, you control it via an included handheld controller with a holographic display.

EMULATOR

You acquire a virtual simulation of yourself. Emulators possess all of your skills and mental characteristics, but are semi-sentient duplicates, not independent intelligent entities. They can't go against your wishes, and are incapable of creative thought; however, they can take actions in the Mindscape while you act in the physical world, and can also control Mindscape-enabled vehicles and equipment for you. See "Extensions" on page 110 for further information.

HALO

You acquire an additional 5 skill levels of **halo skills**, which can only be used when you have access to the Mindscape. To determine which skills your halo contains, roll on any available table for your current career, rerolling any characteristic increases (halos can't increase characteristics). Each time you roll this benefit, you gain an additional 5 halo skill levels. Remember that all characters who have a Mindscape implant already have 1 level of a halo skill. See "Extensions" on page 110 for more on your halo.

LAB

You possess a well-equipped lab, workshop, or medical bay suitable to your skills. It grants you a DM+1 to your choice of Engineering, Medic, or Science checks for the specialty or the specialties you currently possess. For Social Science, you possess instead a vast database and specially created basic sentience that provides the same benefit. If you possess a ship, this lab may be fitted into it free of charge.

ORGANISATION

You're a member of, or have a relationship with, an **organisation** such as an instrumentality, corporacy, government, and so on. Organisations provide access to resources (including credit), goods and services; however, they also require services in return. Players should work out the exact nature of their organisation with the GM. Characters may all belong to the same organisation, even for those who've entirely different careers. See **Chapter 9: Organisations** for more.

RESTRICTED AUGMENTATION

This benefit is identical to the Augmentation benefit above, except that you can instead choose a restricted augmentation.

SENTIENT WEAPON

You have a weapon containing a basic sentience (page 31). Select any weapon with a TI no greater than your personal TI but at least T8 and a cost of no more than Cr10,000. If you roll this benefit again, you may take another weapon, or gain +1 level in the appropriate combat skill for a weapon already received as a benefit, or upgrade your initial sentient weapon to a single weapon with a cost of no more than Cr20,000. Because your weapon is sentient, it can aim and attack on its own if ordered to do so (ie it can act independently), for which it has a built-in DEX + combat skill DM+3. More usually, it can assist you in using it, enhancing your aim and weapon use and providing an automatic DM+1 to your attack rolls. See "Operating Sentient Devices" on page 107 for more. Sentient weapons are commonly missile weapons, but sentient melee weapons such as energy blades, etc, are also possible.

SHIP

Note that this benefit only applies if none of the player characters is playing a sentient starship. If more than one PC rolls this benefit, the players should discuss which ship they will retain, and reroll the unused benefits, ignoring further rolls of "Ship".

You have access to a ship for travelling between star systems. It is an NPC, with the basic stats provided in **Chapter 8: Starships and Space Stations.** This benefit has three options:

- **Diplomatic Courier:** The character has use of a *Herald*-Class Fast Courier.
- **Merchant Ship:** *Adam Smith*-class merchant, *Keynes*-class subsidised freighter, or *Profit*-class New Trader.
- **Ship:** Any of the three merchant ship options, a *Botany Bay*-class Stage II Explorer, or a *Prospector*-class mining vessel.

Note that the *Keynes*-class subsidised freighter and the *Botany Bay*-class Stage II Explorer are vessels with crews of at least several dozen individuals. If the characters select such a ship, this means they're part of a larger crew, rather than the sole crewmembers.

See page 167 for more information on these vessels.

SKILL CHIP

You gain a single level of a halo skill (page 110). To determine which skill you obtain, roll on any available table for your current career, rerolling any characteristic increases. Skill chips are treated just like other halo skills.

VIRTUALITY

You have a virtual space which you have developed and fitted out in the Mindscape. In addition to having any appearance you desire, this virtuality also provides a DM-4 to all attempts to hack or otherwise perform **technopsi** (page 129) on anyone inside it. If you roll this benefit again, you may acquire another virtuality, or a **sentinel** (page 111) which protects your virtuality and anyone inside it.

WEAPON

Select any weapon from those listed in "Weapons" on page 117 with a TI no greater than your personal TI and a cost of no more than Cr10,000. This is a non-sentient weapon. If you roll this benefit again, you may take another weapon, +1 level in the appropriate Gun Combat skill for a weapon already received as a benefit, or upgrade your weapon to a single weapon with a cost of no more than Cr20,000.

Optional Rule: Starship Mortgages

Sentient starship characters, and characters who have already rolled a ship benefit, who roll "Ship" on a benefit roll may choose to take this roll as MCr1 of starship equipment or, if they're operating out on the Fringe, as MCr5 of starship upgrades and a MCr5 mortgage to pay off. Additional rolls can be used for either MCr1 of starship equipment, another MCr5 of starship equipment for which the character owes another MCr5, or to pay off MCr1.25 of an existing mortgage. As indicated by the rules on starship mortgages in the **Traveller Core Rulebook** *(page 142), each MCr5 mortgage requires a payment of Cr20000 (1 RP, see page 210) every month.*

AGEING, EXPERTISE, AND LONGEVITY

Characters begin at their initial age, and increase that age by 4 years for every term. Eventually ageing will take its toll on characters' abilities. However, characters from more technological backgrounds may delay or even eliminate the effects of ageing entirely. There are two methods of doing this, of increasingly high Tech Index:

- **Rejuve (T7):** A regimen of treatments which are applied every so often and which reverse the effects of ageing, effectively making a character younger. Each application of rejuve reduces a character's biological age by 12 years. There's no limit to this how often rejuve can be used, but it can't safely lower a character's age below physical maturity.
- **Longevity (T8+):** An advanced genurgic procedure which returns a character's physical body to its prime and prevents further ageing. The Longevity augmentation is a one-time treatment, although it can be reversed if desired (this is rare). A single application of Longevity reduces a character's biological age to **mature adult**, and prevents any further biological ageing.

Unlike characters in the ***Traveller Core Rulebook***, characters in ***Mindjammer*** are often more than a century old, and in perfect health. As a result, characters from the Commonality and from other polities with advanced technology are exceptionally competent. However, great age also provides them with several limitations (see "Longevity Restrictions" on page 80).

The Expertise of Great Age

In ***Mindjammer***, the highest skill level a character can achieve is 6, +1 per 100 years of age. This is known as the **skill cap**. So, a character who is 110 years old could have a level 7 skill; to get to level 8, he'd have to be at least 200 years old. Ancient sentiences can have very high skill levels, which is one of the reasons hyper-skilled Commonality characters can accom-

Culture, TI, and Longevity

Unless they specifically decide not to, all Commonality characters receive a single **longevity package** *as part of their pre-career education, with all of the advantages, changes, and disadvantages this provides. Commonality characters who refuse this package still have the Longevity augmentation at no extra cost, but have not pursued a lengthy pre-career education. Fringe world characters, including those from T8 worlds or above, don't automatically receive this longevity package, but if they succeed at a* **longevity roll** *(page 40) may choose either a single rejuve treatment or a longevity package. Venu characters and characters from T7 worlds or below may not receive longevity packages unless they leave for a higher tech polity, in which case succeeding at a longevity roll gives them a single rejuve treatment. Characters from lost worlds or backgrounds of T7 or below may not attempt longevity rolls unless they leave their world for a higher tech polity.*

Characters with the Longevity augmentation cease to age physically, and never need to make another ageing roll. Characters who succeed at a second longevity roll during character creation may take a further longevity package, making them another 50 years older and giving them all the benefits and restrictions of a longevity package a second time.

plish very complex or difficult tasks, and even do so quickly. They may even perform multiple actions simultaneously with a high degree of success.

Longevity Packages

The careers section above provides **longevity rolls** for each career (see Step 10 of the Character Creation Checklist, page 13). You receive a longevity package whenever you succeed on your longevity roll. This is a set of benefits you acquire by virtue of undertaking longevity treatments and spending decades in your chosen career—the default period for a longevity roll is 50 years. At the end of this time, your apparent (physical) age has not increased, either because the longevity augmentation prevents all aging, or (if you do not possess the longevity augmentation) because you acquired a sufficient number of rejuve treatments during this time to prevent all ageing.

A longevity package provides your character with the following:

- Roll or choose 8 times from the skills and training tables for your current career. You may increase one of your characteristic scores by +1 instead of acquiring a skill level, but only up to 3 times in a given longevity package (for a total of +5 skills and +3 characteristic points). If you're a Commonality citizen and this is your initial longevity package taken before your first career, see also "Pre-Career Education Within the Commonality" on page 38.
- Increase your actual age by +50 years. Your apparent (physical) age remains unchanged at **mature adult**.
- Either acquire a new **longevity restriction** at level 1, or increase an existing longevity restriction by +1 level. Each longevity restriction has a maximum of 3 levels.
- If your character has a Mindscape implant, gain a single **extension** (either an avatar, emulator, halo, or sentinel). For more information, see "Extensions" on page 110. Characters without Mindscape implants may automatically gain both an implant and a single extension, unless they possess the Implant Reject flaw. You may select any extension available in your current career.
- Gain a single ally, contact, or organisation available in your current career, or raise your Rank in that career by +1.
- Choose Cr250,000-worth of augmentations or other items of personal equipment that are either unrestricted or available through your current career.

Longevity Restrictions

Longevity restrictions are restrictions on your behaviour which you acquire by virtue of having lived a long time. Each longevity restriction has three levels: the older someone becomes, the more extreme their restrictions. This is indicated as Insatiable Curiosity 1, Insatiable Curiosity 2, and so on. Each time you acquire a longevity package, you also gain one level in a longevity restriction.

Levels in the longevity restrictions described below are cumulative; unless a later restriction supersedes an earlier one, when you gain a level in a restriction, its earlier levels still apply.

EXISTENTIAL BOREDOM

You feel old, and like you've seen everything before. New events remind you of old ones, and your mind wanders easily.

1. Routine and detail-oriented tasks bore you silly, and you try to avoid them. Unless something important is dependent on you accomplishing the task to the best of your ability, you'll do a rush job (incidentally also decreasing the timeframe increment by one).
2. If you need to wait more than 10 minutes to do something, you become lost in your thoughts and suffer a Bane on your next task check as you gradually become aware of the world around you again.
3. Unless someone would notice, you always rush routine and repetitive tasks and try to find ways to skip them altogether.

INSATIABLE CURIOSITY

Something new and wonderful could be waiting just around the next corner, or perhaps inside that locked box on the table in front of you.

1. If confronted with a mystery, you always want to investigate it. You may turn down mysteries that seem too dangerous or even too socially awkward to investigate, but if you can find a way to investigate them without risk, you'll try. If a comrade isn't present, you may turn down a chance to look through their personal belongings if you think they'd find out and would be angry with you, or if you care about them and know that doing so would upset them, but you're still sorely tempted and someone else could likely talk you into doing so.
2. As long as no physical danger or legal consequences are involved, you can't turn down a chance to investigate something potentially interesting.
3. You'll try to do so as safely as you can, but if presented with a chance to learn something interesting or uncover any sort of mystery, you'll take it. If prevented from investigating something by threats of physical force, or simply an inability to gain access, you suffer a Bane to all checks until you find a way to overcome these obstacles or discover a new mystery to investigate.

INTOLERANT OF DISCOMFORT

You've eaten too much bad food and endured too much discomfort to put up with any more.

1. You always seek out the best food and similar comforts as long as they're within your means. You never volunteer to go anywhere actively uncomfortable, like hiking across a glacier, although you **can** be convinced to endure discomfort for a sufficiently good cause.
2. You're only willing to endure uncomfortable situations if you can take along as many comforts as you possibly can. The only way to talk you into sneaking through the wilderness to infiltrate that secret Venu base is if you take along a luxurious portable shelter module and a makepoint designed for creating gourmet food…
3. You refuse to enter situations where you'll be deprived of comfort, and if forced into such a situation you suffer a Bane to all actions not directly involving attempting to attain the comforts you require. If you're stranded on a desolate planet, you suffer a Bane to any activity not directly related to either finding a way off, or increasing your personal comfort.

Paired Longevity Restrictions

The following longevity restrictions are organised in opposed pairs. You can only take one restriction from a given pair, never both.

CONCERN FOR ALL SENTIENT LIFE VS DISREGARD FOR OTHER LIVES

The experience of age can make other sentient beings seem either vitally important or increasingly irrelevant.

CONCERN FOR ALL SENTIENT LIFE

Life is precious, especially intelligent life. You abhor lethal violence and are horrified by the idea of taking another sentient life.

1. You avoid combat and prefer non-lethal attacks whenever possible.
2. You never initiate lethal violence, and can't kill someone except to prevent an immediate lethal threat to yourself or someone else.
3. You can't kill another sentient being, even to save your own life.

DISREGARD FOR OTHER LIVES

You've seen dozens of people die, and you aren't troubled by a few more—especially if you think they're dangerous.

1. You've seen enough sentient beings die that you're exceedingly casual about other people's deaths, and rarely express regret over the death of someone who wasn't important to you. You don't kill or use violence without a good reason, and are as inclined as anyone

else to avoid the legal ramifications of murder, but in lethal combat you never hesitate to kill anyone you regard as a serious threat.
2. You have no trouble killing captives if you believe they'd be better off dead. Without a compelling reason beyond mere personal feelings, you refuse to risk your life for someone else.
3. If someone or something is an active threat to you or to someone or something you care about, you'll kill them unless someone stops you, or you can't find a way to do so without serious consequences.

EMOTIONALLY DISTANT VS NEEDY

The very old often retreat from contact with other sentients, or increasingly come to rely upon that contact.

EMOTIONALLY DISTANT

You have difficulty forming emotional connections with others, and tend to disregard their feelings.

1. You almost never talk about your own emotions, and have little interest in those of others unless they directly affect you.
2. You're oblivious to others' emotions unless they're blindingly obvious, and suffer a Bane to checks to comfort or inspire others using emotion rather than logical necessity.
3. You're incapable of forming close friendships, and suffer a Bane to checks to discern the emotional states of others, including telling if someone's lying.

NEEDY

Age has made you value emotional connection and the presence of others so much that you find solitude to be difficult. You hate being alone, and are emotionally dependent on those around you.

1. You value the company of people you care about, and do your best not to be away from them. The only thing worse than being away from them is being entirely alone.
2. If you're on your own for more than half a day, you suffer a Bane to all checks except those directly related to regaining the company of others, preferably those you care about.
3. Whenever you're unable to easily get in touch with those you care about, you suffer a Bane on all checks except those directly related to recontacting them.

HYPER CAUTIOUS VS RISK-TAKER

Sometimes the very old become substantially more or less cautious.

HYPER CAUTIOUS

You've lived too long to die from a p-suit blow-out or some other simple accident. You're willing to fight to survive, but you prefer doing so in a way which places you in as little danger as possible.

1. You double check your protective gear, worry about safety, and refuse to charge into a situation and trust to your luck unless you're pretty certain of success—or at least survival.
2. You always take extra time on safety checks (increasing the timeframe increment by one), and if for any reason you can't you suffer a Bane on all checks due to anxiety until you or someone you trust has been able to check your equipment. You also take time to check for ambushes or traps whenever you're about to enter combat or any other dangerous situation.
3. You're paranoid about safety. You refuse to enter combat without an excellent incentive, and even then you make certain you're in the back, preferably hiding behind something or someone.

RISK-TAKER

You've lived long enough that boredom has started to become a problem, but you know the solution: taking risks makes you feel joyfully alive! You aren't suicidal, but you love the thrill of danger.

1. If you ever bother to make a safety check, you take less time than normal, and tend to underestimate the risks. You enjoy dangerous entertainments.
2. You love the thrill of danger, and while you avoid actions that are likely to get you killed, you find it difficult to resist activities that look fun and exciting. You're rarely bothered by even a moderate chance of death or serious injury.
3. You're always the first to volunteer to go into danger. You'll object to and argue against bad, foolish, or suicidal plans, but if presented with a plan that's sound but entails substantial personal risk, you won't hesitate. If a safer plan has a smaller chance of success, then you'll not only push for the riskier plan, you may set out on your own, forcing your comrades to either go along with it or abandon you.

MEMES

You should select three **memes** for your character. Memes are traits that reflect a culture's values, and how it deals with its own members and outsiders. All characters, economic systems (page 208), organisations (page 185), and cultures (page 216) have three such memes. Players can freely select their character's memes from the character's culture, an organisation the character belongs to (page 77), or the economic system the character lives under. Each meme should be a relatively simple concept, almost like a motto which the character lives by, such as *Synthetics Are Monstrous, Death Before Servitude*, or *Live and Let Live*. Every meme should expressible in a single short, direct phrase.

Memetic Effects

Memes affect a character's behaviour and actions in positive and negative ways. They influence their values, and how effective they are when performing actions related to those values. If a character acts in a manner that matches one of their memes, any related checks receive a Boon. Likewise, if a character acts in a manner that contradicts one of their memes, they receive a Bane.

A character with the *Synthetics Are Monstrous* meme gains a Boon on all combat checks against synthetic opponents, and all checks to persuade others to shun, oppose, or fight a particular synthetic or indeed all synthetics. The same character incurs a Bane on all checks to engage in commercial or diplomatic negotiations with a synthetic, or to help a synthetic perform a task.

Likewise, a character with the *Violence Against Sentient Beings Is Morally Wrong* meme gains a Boon on any checks to help negotiate peace or otherwise peacefully resolve a violent or potentially violent conflict, but incurs a Bane on any checks to incite or perform violence, including all checks to attack other sentient beings.

Sample Economic System Memes

The following are examples of **economic system memes**, ordered by economic system (page 208).

BARTER

- *A Fair Deal Is a Good Deal.*
- *Only Trust Wealth You Can Hold.*
- *Money and Accumulated Wealth Are Evil.*

CONFISCATION

- *We and Our Possessions Only Exist to Serve the Rulers.*
- *Strive to Gain Power and Status So You Can Take From Those Less Able and Deserving.*
- *The Rulers Are Divinely Blessed and Deserve Whatever They Wish to Take From Their Subjects.*

UNREGULATED MONEY ECONOMY

- *People Are Only Responsible for Themselves.*
- *Greed Is Good.*
- *Wealth Indicates Moral Superiority.*

REGULATED MONEY ECONOMY

- *Poverty Is the Mark of an Unjust Society.*
- *Care About All Members of Your Society.*
- *Society Is Responsible for All Its Members.*

PLANNED ECONOMY

- *The Collective Knows Better Than Any Individual.*
- *None Should Possess Luxury While Any Are in Need.*
- *Greed Indicates Corruption, Take Only What You Need.*

INTERESTED RESOURCE ALLOCATION

- *Everyone Deserves Enough, But the Best Deserve Luxury.*
- *Excellence Should Be Rewarded With Luxury.*
- *Too Much Equality Weakens Society.*

DISINTERESTED RESOURCE ALLOCATION

- *Money Is Archaic.*
- *Economies Should Provide for Everyone and Harm No One.*
- *With Sufficiently High Technology We Can All Be Wealthy.*

Sample Cultural Memes

The following are examples of **cultural memes**, ordered by cultural openness (page 273).

LOW OPENNESS MEMES

- *Our Traditions Are Sacred.*
- *X (type of outsider) Is Monstrous.*
- *Change Is Dangerous.*
- *Outsiders Threaten Our Safety.*
- *Conquer Outsiders to Civilise Them.*

INTERMEDIATE OPENNESS MEMES

- *Live and Let Live.*
- *Rapid Change Is Destructive.*
- *Moderation Is Best.*
- *Welcome Newcomers Willing to Learn Our Ways.*
- *Share Our Culture With Others.*

HIGH OPENNESS MEMES

- *Traditions Are Stifling.*
- *The New Is Better Than the Old.*
- *Try New Ways of Living.*
- *Learn About Other Cultures.*
- *Explore the Universe and Cherish Its Diversity.*

POST-CAREER EDUCATION

The training rules on page 52 of the ***Traveller Core Rulebook*** apply as written. In addition, characters with Mindscape implants may purchase additional halo skills (page 77) in the form of skill chips (see **Chapter 6: Equipment**, page 104).

POINT-BASED CHARACTER CREATION

Point-based character creation is an alternate character creation method in which characteristics, skills, and various benefits are purchased with points rather than rolled.

Point-Based Character Creation Checklist

1. Choose a culture, genotype, and homeworld.
   a. Determine your personal tech index.
2. Generate the six characteristics by purchasing them from a pool of 45 character points (CP). No characteristic can be below 2 or above 12 at this stage of character creation. Each point of characteristic purchased costs one CP up to a value of nine, and 2CP per point from a value of 10 and up.

   For example, every point of a characteristic from 1-9 costs 1 CP, and each point after that costs 2 CP. Buying a single characteristic up to 12 costs 15 CP.

   If you're creating a synthetic installation character, distribute 30 character points among only four characteristics: DEX, INT, EDU, and SOC. If the synthetic character later becomes a mechanical or organic, generate his STR and END using 15 CP.
   a. Modify characteristics for culture, genotype, and homeworld as required.
   b. Determine characteristic modifiers.
3. Gain **background skills**, **background augmentations**, and **traits** for your culture, homeworld, and genotype.
   a. Establish your **initial age** based on culture and genotype.
4. Choose if you want your character to have flaws. You can choose up to 2 common or major flaws. Remember that the Implant Reject major flaw prevents you from obtaining any background (or other) augmentations. Add 1 CP per common flaw and 2 CP per major flaw to the CP you gain from careers below.
5. Choose if you wish to purchase more than your normal number of traits. Each additional trait costs 1 CP, and you can purchase up to two additional traits. You cannot purchase the Notable Characteristic or Notable Skill traits in this fashion; also, traits marked with an asterisk (*) cost no CP.
6. Decide if you wish to use pre-career education. If you're from the Commonality, you may take a free longevity package associated with the Civilian career before starting careers. If you're not from the Commonality, you can choose a university or military academy as your pre-career education. You automatically graduate from any type of education you choose (gaining all the listed benefits), and may also roll for pre-career education events (***Traveller Core Rulebook***, page 15). You can also pay 1 CP to choose an event off the pre-career education events table.
7. Choose a **career**. At the start of each term, you gain +10 CP. You can choose to spend these during the term, or save some or all of them for later. Instead of rolling for survival, you automatically survive, unless you want to roll or purchase a mishap. Mishaps cost 1 CP, and you may only roll for or purchase one per term. Likewise, instead of rolling, you may spend CP to purchase rank, commission, and longevity; see the costs below.
8. If this is your first time in this career, you receive your **basic training**.

Changing Personal TI

Characters can deliberately raise or lower their personal TI by one. Doing so requires you to live on a world or a starship with the desired TI and avoid using technology of your current TI as much as possible, while also spending several hours a day actively familiarising yourself with the technology around you. Lowering your personal TI by 1 point requires 8 weeks of living in this fashion, at the end of which you must make an Average (8+) EDU check. Raising your personal TI by 1 point requires 16 weeks of living in this fashion, at the end of which you must make a Difficult (10+) EDU check. In both cases, success means that you have changed your personal TI by one point and now suffer no penalty when using technology from your new TI, but you also now suffer a penalty when attempting to use technology from your previous TI. Failure indicates the time has been wasted and you must repeat the entire process again. Frequently using technology from your current TI imposes a Bane on this roll, and frequently having to struggle to survive using technology from the new TI imposes a Boon on this roll.

You can only raise your personal TI by one point at a time, but can do so repeatedly. You can attempt to lower your personal TI by more than one point at a time, but doing so requires 8 weeks x the difference between your current TI and your desired TI (changing your personal TI from 9 to 6 would require 9-6 = 3 x 8 = 24 weeks). At the end of this time you must then make a Difficult (10+) EDU check. The consequences of success and failure are the same as when attempting to lower your personal TI by one point.

Even if characters are not attempting to deliberately raise or lower their personal TI, sufficiently long exposure to higher or lower technology, where the character has little or no exposure to their current TI, such as when moving to a planet with a higher TI and living in a large city, or being marooned on a planet with a lower TI, causes characters to decrease their personal TI by one every 2-3 years or to increase their personal TI by one every 5-6 years. In both cases, characters may not increase or decrease their personal TI above or below the TI of the world or starship they're currently living on.

9. Choose a specialisation for your career. If you're changing specialisations while remaining in the same career, ensure you come up with a good explanation.
    a. Choose one of the skills and training tables for this career and purchase one of the items on it. Purchasing a characteristic up to 9 or a skill up to level 2 costs 1 CP per characteristic point or skill level of any skill other than Jack of All Trades. Purchasing a characteristic at 10 or higher (to a maximum of 15) or a skill of 3 or higher (to the character's skill cap of 6, +1 per 100 years of age) costs 2 CP per characteristic point or skill level for any skill other than Jack of All Trades. The Jack of All Trades skill always costs 3 CP per skill level.
    b. You can choose to purchase a rank in your career. Each rank costs 1 CP, but you can purchase rank only once per term. Each rank you purchase lets you also purchase an additional entry from one of the skills and training tables for the career, as well as automatically providing the normal benefits for that rank, including any bonus skills. If available, you can also purchase a commission at the cost of 1 CP.
    c. You can choose to purchase any extension available to the career. Each extension costs 1 CP, and you can only purchase one per term.
    d. You can choose to purchase a connection available to the career (an ally, contact, or organisation). Each connection costs 1 CP, and you can only purchase one per term. Connections to other characters are free, but they do count against the 1 connection per term limit. You may also spend this CP to increase your connection to one organisation, providing you with an additional 2 organisation points (OP) in that organisation (see page 187).
10. Choose an **event**. You can choose one item from either the Mishap table or Event table for your career, or a life event from the Life Event table. Mishaps can be chosen without cost. Alternatively, you may roll on the Mishap table. Doing so gives you an additional +1 CP, but you must abide by the result. Alternatively, you may pay 2 CP to purchase any item from the career's Event table or the Life Event table. You may choose or roll only one mishap, event, or life event per term.
11. Increase your chronological age by +4 years. If your character has a biological age of middle age (human: 34) or older and lacks the Longevity augmentation, roll for **ageing**. Each term, if the career and your personal TI permits, you may automatically succeed at a longevity roll. Depending on your personal TI, you may either purchase a rejuve treatment and immediately reduce your biological age by up to 12 years (3 terms), to a minimum of your age at physical maturity; or you may acquire the Longevity augmentation and purchase a longevity package. If you already have the Longevity augmentation, you don't need to roll for ageing, but you still gain the longevity package.
12. Aquiring a longevity package is free and may be done once a term. However, unless your referee permits more longevity packages, you must end character generation once you possess a total of 3 longevity packages (including the one gained from Commonality pre-career education). Also, without special permission, you cannot pursue more than twice as many career terms as the total number of your allowed longevity packages. Typically, this gives you a maximum of 6 career terms, not counting any pre-career education.
13. A rejuve treatment costs 1 CP; a longevity package costs 6 CP. If you purchase a longevity package, choose one extension, 8 points of skills, Cr250,000 of equipment and augmentations, one connection, and one longevity restriction (see **Longevity Packages**, page 79). All skills and characteristic gained from a longevity package must be available on one of the skills and training tables for your career, and the extension and connection you choose must also be available to that career. Each of the 8 points gained from a longevity package can be used to purchase one skill level or one characteristic point (with a limit of +3 characteristic points per longevity package). However, each level of the Jack of All Trades skill still costs 3 skill points.
14. If you've left your current career, return to Step 7 and choose a new career; or go to Step 15 if you want to finalise your character. Otherwise, return to Step 9.
15. If you've left your current career, choose benefits. This can be **credit** (cash or resource allocation units, depending on culture and TI), or **another benefit** (usually an item of equipment). Each choice on the benefit table costs 2 points. You can choose up to one benefit for every term you served in the career. If you reached rank 1 or 2, you can purchase a maximum of one additional benefit choice when leaving that career. If you reached rank 3 or 4, you can purchase a maximum of two extra benefit choices, and if you reached rank 5 or 6, you can purchase a maximum of three extra benefit choices. You can choose any benefit which requires a roll of 6 or less in standard character generation. However, to choose benefits which require a roll of 7, you must have the Gambler skill, choose an event that gives you a bonus to a benefit roll, or have a Rank of 5 or 6 in that career. Keep any unspent CP gained this term for use in later terms.
16. Finalise any connections with other characters.
17. Select three memes for your character (page 81).
18. Choose a Campaign Skill Pack and allocate skills from that pack among your group (replace Electronics with Interface or Informatics).
19. Purchase starting equipment.

CHAPTER FOUR
SKILLS

"Trust me—I know what I'm doing." Max grinned as the Rosemary Princess *raced to the jump point. "I can shave a few light seconds off our 2-space entry and throw those goons off our tail!"*

Lyra frowned, clutching the enormous gem to her chest, closing her eyes. "Don't try anything stupid!" Her eyes opened, alarm spreading over her face, and she flung him the exomemory from her mnemonic shunt. "You knew about the black star extending this system's heliopause, right? What the hell...?"

Max paled as he accepted the exomemory of the dying smuggler's last few seconds of life. Okay, maybe a crash jump wasn't such a good idea...

"Know what I'm doing?" he muttered, pulling up a system holo and scanning for places to hide. "Of course I do..."

With a few exceptions, described below, skills and their specialities in ***Mindjammer*** are identical to those in the ***Traveller Core Rulebook***. In addition, rules for skill checks, including combat, are unchanged, although available weapons and armour differ, and combat can also occur in the Mindscape (page 129).

THE SKILL LIST

This section describes those ***Mindjammer*** skills and specialities which differ from standard ***Traveller***. The skills available are summarised in Table 4-1: Mindjammer Skills List; new or modified skills are in italics.

The Technological Context of Skills

Many skills, like Athletics or Persuade, work the same regardless of the personal TI of the individual using them. Others, like Flyer or Pilot, require a minimum TI to use at all. Other skills, like Science or Medic, function differently at different TIs.

For example, a character with a personal TI of 4 and the Science (chemistry) skill has a very different understanding of chemistry from a character with a personal TI of 8. In the first case, the periodic table of the elements is cutting edge; in the second, it's an understanding of how to transform energy into matter.

Table 4-1: Mindjammer Skills List

Admin	Gambler	Persuade
Advocate	Gunner (specialties)	Pilot (specialties)
Animals (specialties)	Gun Combat (specialties)	Profession (specialties)
Art (specialties)	Heavy Weapons (specialties)	Recon
Astrogation	Informatics (specialties)	Science (specialties)
Athletics (specialties)	Interface (specialties)	Social Science (specialties)
Broker	Investigate	Seafarer (specialties)
Carouse	Jack of All Trades	Stealth
Deception	Language (specialties)	Steward
Diplomat	Leadership	Streetwise
Drive (specialties)	Mechanic	Survival
Engineer (specialties)	Medic (specialties)	Tactics (specialties)
Explosives	Melee (specialties)	Vac Suit
Flyer (specialties)	Navigation	

Technopsi

*Mindscape-connected characters can achieve seemingly miraculous effects known as **technopsi**. These include thought-communication using technological telepathy, remote control of devices using thought, accessing sensor data via virtual vision overlays and direct neural input, performing actions in virtual environments known as **virtualities** and **imposalities**, and more.*

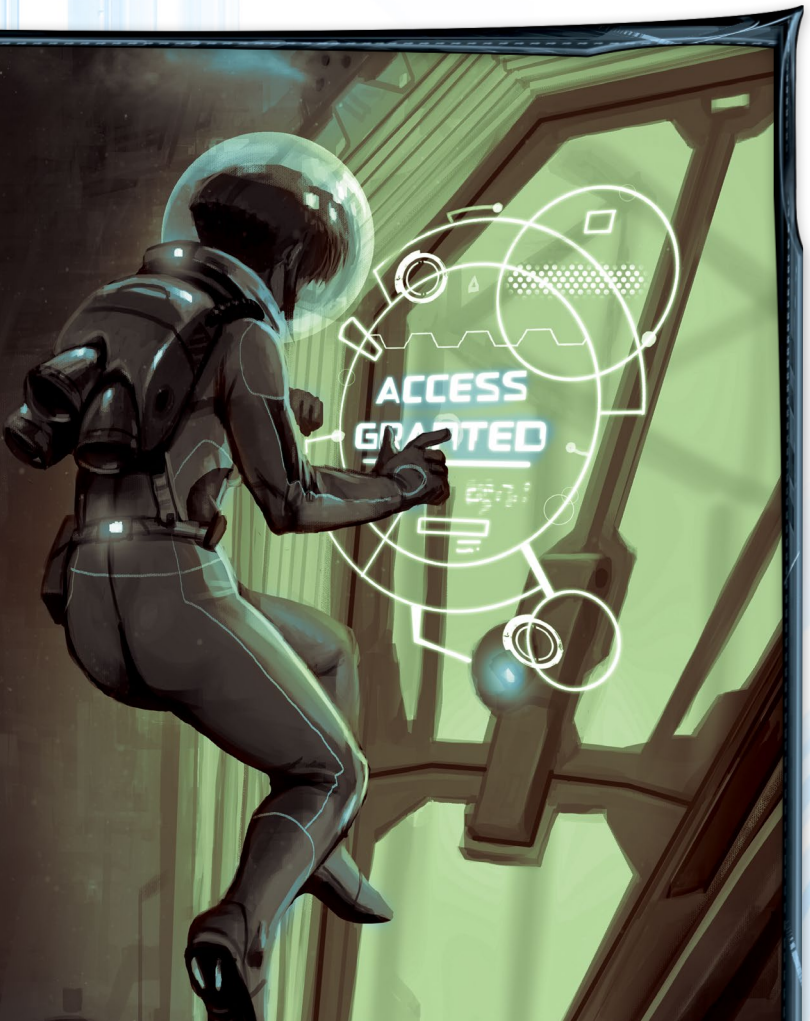
*The external details of technopsi and other Mindscape-related effects are described in **Chapter 7: The Mindscape**. Tasks involving the Mindscape are described where appropriate in the skill descriptions below and throughout this book.*

In a similar way, the Pilot skill doesn't exist before T4, where it's used for piloting primitive solid- and liquid-fuel chemical rockets. At T8, however, the same skill is used for piloting slowships powered by gravity engines.

Consequently, characters with a low personal TI may not be able to acquire certain skills (typically those involving devices, weapons, and vehicles that don't exist at that TI). If a character possesses a skill which depends upon technology for its use, the technology it can applies to is limited to the character's own personal TI. Attempting to use a skill at a higher TI incurs the standard DM-2 per TI difference, or a DM-1 per TI difference at a lower TI (page 16).

For example, if a character with a personal TI of T8 uses his Pilot skill to assist in piloting a starship through 2-space, he incurs a DM-2 on his check. Likewise, if the same character tries to pilot a T5 chemical rocket, he incurs a DM-3.

Usually the technological context of a character's skills will change wholesale when the character changes his personal TI. However, it's also possible just to change the technological context of just one skill, leaving your personal TI unchanged, using a process similar to changing their personal TI—see the textbox on page 87.



Art

The Art skill has one additional speciality:

NEW SPECIALITY

- **Mindscape:** You can use the Mindscape to create interesting and emotionally affecting virtualities, imposalities, and fictionals (see page 135).
  - *Create a Fictional:* Difficult (10+) Art (Mindscape) check (1D x 10 minutes, INT).
  - *Create a Virtuality:* Difficult (10+) Art (Mindscape) check (1D hours, INT).
  - *Create an Imposality:* Very Difficult (12+) Art (Mindscape) check (1D x 4 hours, INT).

Engineer

Some of the specialities of this skill are changed, and a new speciality has been added:

SPECIALITIES

- **Gravity Engines:** This speciality replaces the **M-drive** speciality.
- **Life Support:** This speciality covers all aspects of life support, including hydroponics, atmospheric maintenance, feeder tank systems, and makepoints.
- **Planing Engines:** This speciality replaces the **J-drive** speciality. See page 144 for some examples of its use.
- **Power:** This speciality covers both older forms of power generation like fusion reactors, as well as modern ZIP plants.
- **Shields:** You can maintain and operate a vessel's shields, including haze fields and stronger defensive fields.
- **3-Space:** This speciality covers the operation and maintenance of 3-space gates.

Gun Combat

The Gun Combat skill has one additional speciality:

NEW SPECIALITY

- **Mindburn:** You may use your special ops / black chip to perform mindburn attacks on a target which is connected to the Mindscape. See "Mindburn" on page 133 for details.

Interface

This skill replaces the Electronics skill, with the exception of the Electronics (computers) speciality, which is replaced by the **Informatics** skill below. It's used to operate and maintain various technological devices like sensors or communications gear. Higher levels represent the ability to repair and create the corresponding devices and systems. In the Commonality, this skill normally operates via the Mindscape, or optionally via nanocells (page 103); in lower TI societies, less sophisticated networks may be used instead.

SPECIALITIES

- **Comms:** You may use advanced communications systems, opening communications channels, querying networks, jamming signals and so on. You're familiar with the proper protocols for communicating with starports and other spacecraft.
- **Remote Ops:** You may use telepresence to remotely control avatars, drones, missiles, vehicles, and other similar devices. Whenever you use Interface (remote ops) to take a physical action with a remote device using one of your own skills, your skill level is capped by your skill level in Interface (remote ops).

  For example, if you have the Gunnery 3 and Interface (remote ops) 2 skills, and you want to use your avatar to fire the ship's guns of another ship, you do so at an effective Gunnery skill of level 2.
- **Security Systems:** You may create, maintain, and bypass locks, alarms, intrusion sensors, automated defense systems, and similar security measures.
- **Sensors:** You may use sensor devices, from observation satellites and remote probes to PSAs and similar portable sensors, to gather and interpret data. See pages 113 and 147 for examples.

Changing the TI of a Single Skill

Characters can deliberately raise or lower the TI of any one of their skills by up to 2 points higher or lower than their personal TI. Doing so requires you to practice with this skill using equipment of the desired TI for at least several hours per day, and to avoid using this skill with equipment from your current TI.

Lowering the TI of a single skill by 1 point requires 2 weeks of practice, at the end of which you must make an Average (8+) EDU check. Raising the TI of a single skill by 1 point requires 4 weeks of practice, at the end of which you must make a Difficult (10+) EDU check. In both cases, success means that you have changed the TI of that particular skill by one point and now suffer no penalty when using technology of this TI, but you also now suffer a penalty when attempting to use technology from your personal TI. Failure indicates the time has been wasted and you must repeat the entire process again. Frequently using this skill with equipment from your current TI imposes a Bane on this roll. Similarly, frequently using this skill in a situation which depends upon correctly using equipment from the TI you're adapting to provides you with a Boon.

Lowering the TI of a single skill by 2 point requires 6 weeks of practice, at the end of which you must make a Difficult (10+) EDU check. Raising the TI of a single skill by 2 points requires 12 weeks of practice, at the end of which you must make a Very Difficult (12+) EDU check.

Informatics

This skill replaces the Electronics (computers) skill. It deals with the access, use, and control of information resources. The specifics of this skill's application depend very much on the technological context (page 85).

SPECIALITIES

- **Library (T1-T4)**: You're an expert with pre-computer era information stores.
  - *Search For Publicly Available Information:* Very Difficult (12+) Informatics (library) check (1D x 10 minutes, INT or EDU).
  - *Crack a Complex Cipher:* Very Difficult (12+) Informatics (library) check (1D weeks, INT or EDU).
- **Computers (T5)**: You're an expert with non-networked computerised information storage, extending to terminal / mainframe systems.
  - *Access Publicly Available Data:* Easy (4+) Informatics (computers) check (1D minutes, INT or EDU).
  - *Use a Complex Computer Program:* Routine (6+) Informatics (computers) check (1D x 10 seconds, INT or EDU).
  - *Search a Computer Database For Evidence of Illegal Activity:* Difficult (10+) Informatics (computers) check (1D hours, INT).
  - *Hack Into a Secure Computer:* Very Difficult (12+) Informatics (computers) check (1D x 10 hours, INT).
- **Proto-Mindscape (T6-T7)**: You're an expert with networked computerised information storage, extending to pseudo-intelligent super-networks and proto-Mindscapes.
  - *Access Publicly Available Data*: Easy (4+) Informatics

Scenario Hook: Rogue Eidolon

An ambitious but deluded Successor State sci-tech has been working on an intelligent synthetic soldier using the thanograms of dead warriors. His experiments have ended in disaster, and the prototype left the eidolon rig with only Level-2 Compliance: stable and coherent, but completely psychotic.

The characters are called in to what remains of the sci-tech's laboratory to track down the deranged synthetic.

(proto-Mindscape) check (1D x 10 seconds, INT or EDU).
- *Activate an AI Helper Routine*: Routine (6+) Informatics (proto-Mindscape) check (1D x 10 seconds, INT or EDU).
- *Search a Corporate Database for Evidence of Illegal Activity*: Difficult (10+) Informatics (proto-Mindscape) check (1D x 10 minutes, INT).
- *Hack Into a Secure Network:* Very Difficult (12+) Informatics (proto-Mindscape) check (1D x 4 hours, INT).

- **Mindscape (T8-T10)**: You're an expert user of the Commonality Mindscape, including all levels of Mindscape instance and activity within virtualities and imposalities.
  - *Access Publicly Available Data*: Easy (4+) Informatics (Mindscape) check (1D x 10 seconds, INT or EDU).
  - *Communicate a Command to a Ship Sentience*: Routine (6+) Informatics (Mindscape) check (1D seconds, INT or EDU).
  - *Search a Corporacy Imposality for Evidence of Illegal Activity*: Difficult (4+) Informatics (Mindscape) check (1D x 10 seconds, INT).
  - *Hack Into a Secure Imposality*: Very Difficult (12+) Informatics (Mindscape) check (1D minutes, INT).

Language

In ***Mindjammer***, Universal is the language of the Commonality and the most widely known language in all Human Space. However, there are countless other languages, including the languages of the several known alien species, and the thousands upon thousands of unique languages found on lost colonies, rediscovered worlds, and culture worlds. Due to advanced language learning techniques, using this skill at T8+ enables you to speak, read, and write one language fluently for each level of skill, although you may have an accent or other indicator that you're not a native speaker unless you dedicate 2 levels to it. Using this skill at T7- operates identically to the skill description on page 66 of the ***Traveller Core Rulebook***.

Medic

In ***Mindjammer***, the Medic skill possesses two specialities: **medicine** and **redaction**.

SPECIALITIES

- **Medicine**: You may use the Medic skill for emergency first aid and battlefield triage, as well as diagnosis, treatment, surgery and long term care. See "Injury and Recovery" on page 47 of the ***Traveller Core Rulebook***.
- **Redaction**: You may use the Medic skill via the Mindscape to treat mental damage to organic and synthetic minds, including damage caused by mindburn or eidolon crisis.
  - *Treat Minor Amnesia*: Average (8+) Medic (redaction) check (1D x 4 hours, EDU).
  - *Treat Lost INT or EDU*: Difficult (10+) Medic (redaction) check (1D days, EDU). See page 75.

Pilot

The Pilot skill remains the same, except that it covers the use of craft propelled by reaction drives, gravity engines, and planing engines. The skill's specialities are unchanged; however, see page 143 for the specific conditions for using the Pilot skill when travelling through 2-space.

Science

The Science skill gains several new specialities, and some existing specialities are removed or renamed. Additionally, the Archaeology, History, Linguistics, Philosophy, Psychology, and Sophontology specialities are now specialities of the new **Social Science** skill.

NEW SPECIALITIES

- **Computational Matter**: You're an expert in the understanding and application of hyperadvanced (T8+) synthetic sentience hardware, including (depending on Tech Index) neural biogels, advanced storage media, nanoprocessors, and intelligently reconforming data processing substrates.
- **Genurgy**: You're a specialist in the creation, maintenance, and implementation of genurgic augmentations. This speciality replaces both the Cybernetics and Genetics specialities, superseding both fields and incorporating them into the unified genurgy field.
- **Mindscape**: You're an expert in the science of engrams, thanograms, thoughtcasts, and the design and theory of the Mindscape. If Informatics (Mindscape) is about using, exploiting, and hacking the Mindscape, then Science (Mindscape) is about designing, maintaining, and constructing the nodes, data relays, and paraneural engram architectures which constitute the Mindscape itself.
- **Synthetics**: You're an expert in the design, maintenance,

and creation of synthetic life forms, including organics and mechanicals and basic and eidolon sentiences. This speciality replaces the Robotics speciality.

Social Science

The Social Science skill covers the understanding of cultures and societies constituted by sentient beings, and also the application of that understanding to affect and manipulate individuals and even entire societies and cultures.

SPECIALITIES

- **Anthropology**: You're an expert in the study of human and non-human cultures and societies.
- **Archaeology**: You're a specialist in the study of ancient civilisations, including extinct lost colonies and alien societies. This includes investigative techniques and running excavations and digs.
- **History**: You're an expert in the study of the past, as seen through documents and records as opposed to physical artefacts.
- **Linguistics**: You're an expert in the theory and study of the nature of language, whether human or non-human, including the phenomenon known as **gestalt language** (page 105).
- **Memetics**: You're an expert in the identification, categorisation, and manipulation of memes (page 81).
- **Philosophy**: You're a specialist in the study of theories of knowledge and analytical systems, including religions.
- **Psychology**: You're an expert in the study of humankind's thought process and cognitive structures, including both individual and collective (social) phenomena.
- **Sophontology**: You're an expert in the study of a single exointelligence. Each additional exointelligence requires a separate skill, although you're considered to have a level 0 skill when dealing with an unknown exointelligence.

Tactics

The Tactics skill possesses one additional speciality.

NEW SPECIALITY

- **Cultural Conflict**: You may draw up and co-ordinate plans to modify a culture or its memes by provoking cultural conflict. See **Chapter 11: Cultures** (page 216) for more on using this speciality.

Life on New Commonality Worlds

Commonality citizens live lives of pampered luxury from our 21st century perspective, coupled with a largely voluntary submission to restrictions most of us would find intolerable. Whether born in vitro or via natural childbirth, they spend their first half-century in education, acquiring a tight bond with and dependence on the Mindscape. All physical needs are provided for, and expert systems evaluate each individual to identify activities the individual considers stimulating and worthwhile. Those with maverick or non-conformist personalities are channeled towards lives in instrumentalities, or on specific culture worlds, or even out on the Fringe or beyond the Frontier. Only in hopeless cases is re-education recommended.

Most Commonality citizens are therefore happy and well-balanced, leading largely fulfilling lives which have been fitted into the larger-scale patterns of the Commonality by unseen hyperintelligences. They live in arcologies, domiciliaries, orbital habs, plateworlds, or loosely dispersed settlements on new colony worlds. There are worlds in the Core where generations work the soil; habs of artists and creatives; depots of tech enthusiasts; and metroplexes where whole societies interact in single megastructures.

This is the way the Commonality likes to portray itself. In many ways it's true; but it isn't the whole truth. There are slums even in the Core Worlds, where dropouts, underworlders, and xenomorphs live in abandoned districts, in "shadow societies" hidden beneath official ones. These impoverished masses live outside the Commonality security and supply networks, and are rarely acknowledged.

CHAPTER FIVE
TECHNOLOGY

"And souls and conscience gave he them all, from the humblest scanner to the proudest warship. And they awoke, and gave praise for it.""

—from the Salt Lake Computational, banned by the Commonality in 73 NCE

The New Commonality of Humankind is characterised by its hyperadvanced technology; it's what gives it the edge in the cultural conflicts of the Rediscovery Era. This chapter discusses the technologies available in the ***Mindjammer*** universe, including a comparison between ***Mindjammer's*** **Tech Indices** and ***Traveller's*** **Tech Levels**.

TECH PARADIGMS

The following technological paradigms define Commonality life. When describing environments and events in the Commonality, use these as a baseline defining what is and is not possible. Some of this technology is very different from the technology described in ***Traveller Core Rulebook***.

Ubiquitous Intelligence—but No Computers

The computers of Old Earth's early technological era were a stepping stone to greater things. Like the abacus and slide-rule before them, they haven't been part of the Commonality's toolkit for millennia, and are now just historical curiosities. Their successors are synthetics, ubiquitous intelligence, and the Mindscape. In the Expansionary Era, intelligence is everywhere, its manufacture trivial; from sidearms to starships, intelligence is commonplace (although the Fringe and Outer Worlds may have other ideas).

True synthetic intelligence is only available at tech index T8; many Fringe World cultures lack the technological knowhow to manufacture it, and just as many hate or fear it. At T6, devices may have non-sentient "artificially intelligent" interfaces communicating via voice or proto-Mindscape; at T7, these interfaces are only slightly less sophisticated than T8 basic sentiences.

Advanced Minds

Human intelligence was once regarded as the pinnacle of evolution; that's no longer the case. Synthetic intelligence exceeded human norms millennia ago, and now even organic Commonality citizens routinely have genurgically enhanced intelligence when they need it. As intelligence has become independent of the human brain, the definition of "human" has transcended organic bodies. In the New Commonality Era, synthetic sentiences housed in orbital Mindscape nodes and administrating whole worlds still regard themselves as members of humankind.

Infinite Storage Capacity

Technical restrictions on information storage went out with archaic computers in prehistoric times. Nowadays no one even thinks about data "storage"; there's more than anyone will ever need. Finding the information you're looking for, though—that's a different matter.

Discretionary Interfaces

Commonality devices possess sufficient intelligence and Mindscape connectivity to present information in any form

required. The user chooses the interface he wants (usually a **virtual vision** or direct **mindlink**), a feature known as "DI" or **discretionary interface**. Lower tech cultures may have more familiar interfaces to 21st century eyes (including the primitive "keyboard / monitor"), but intelligent Mindscape-linked devices are the Commonality norm, and slightly less sophisticated linkages are common in T7 cultures.

Mindlink (direct Mindscape interface) mimics sensory input; the recipient can see, hear, taste, touch, or smell things, providing a rich sensory experience. Often this degree of immersion—known as a **virtuality**—is used for entertainment, when distraction from the user's surroundings is not an issue.

Virtual vision is less distracting and more practical for everyday use. Information appears as icons or other imagery framing the user's vision, which can be examined with a thought when convenient. For skill chips and exoeidetic memory (page 131), the preferred DI is usually **direct memory engram**, where information is effectively "remembered", even though that information may have been originally experienced by someone else. Some devices offer new users the option of gaining simple direct memory engrams of their use and features.

For communication, **thoughtcasts** are preferred. Similar to an articulated "internal voice", they are transmitted as vocalised words which the recipient hears in his or her mind. Thoughtcasts are often called **techno-telepathy**.

The Transmigration Heresy

The Transmigration Heresy is a reasonably common phenomenon on primitive rediscovered worlds, based on a misunderstanding of thanograms and the nature of eidolons. It holds that eidolons are the "reincarnations" of their thanogram sources—the same individuals, reborn—and that eidolon technology is the key to immortality. Wherever the Heresy takes hold in a rediscovered culture, the effects can be damaging, and SCI Force intervenes constantly to mitigate its effects.

Ubiquitous Perception

Throughout the Commonality—and especially in the Core Worlds—trillions of citizens regularly thoughtcast memories and direct perception feeds. Any Mindscape-linked person can usually locate a perception feed of any reasonably populated location, complete with sensory data. This is a

form of **sensorview** (page 132), and allows characters to use skills like Investigate, Recon, and similar perception related skills anywhere they possess perception feeds. Given that high quality cameras and microphones can both be placed in a housing almost too small to see, perception feeds can be almost anywhere.

Variform Design

Although programmable matter is beyond Commonality tech, configurable micro-scale modular construction is common. **Variform** equipment comprises components which can reshape themselves according to purpose, need, or aesthetics; starships may hide and display weaponry, assuming threatening or non-threatening profiles; synthetics may extrude or reabsorb limbs, increase or decrease in size (changing up to one step in size; see the ***Traveller Core Rulebook***, page 81), and even change body plan. Variform design adds complexity and isn't always used; however, if cost and complexity aren't an issue, even very large-scale constructs (space stations, capital ships, and even plateworlds) can have variform capability. Changing between variform configurations takes time but offers great functional flexibility. However, it also has limits. Variform equipment can change shape, but it can't add additional or different fields, weapons, gravity engines, or other capabilities if it didn't already possess them.

Effectors

Effectors are space-time manipulators, an offshoot of gravity engine and field technology, controlled via Mindscape, often known as techno-telekinesis. Although detectable by sensorview and susceptible to jamming, they're nonetheless highly useful, allowing remote non-physical manipulation of objects proportional to the field's power. They're frequently used by drones and other synthetics, but are also popular with anyone who needs to carefully or remotely manipulate objects.

Abundant Power

The main energy source in ***Mindjammer*** is zero-point energy, the underlying background energy of "empty" space. Colloquially known as **ZIP**, there are ZIP cells, ZIP batteries, ZIP power plants, and so on. Although zero-point energy is essentially limitless and free, its extraction and use degrade the units which convert it into usable form, entailing regular overhaul or replacement. By T9, any device large enough to see with an unaided human eye is powered by a ZIP cell, which typically lasts for years.

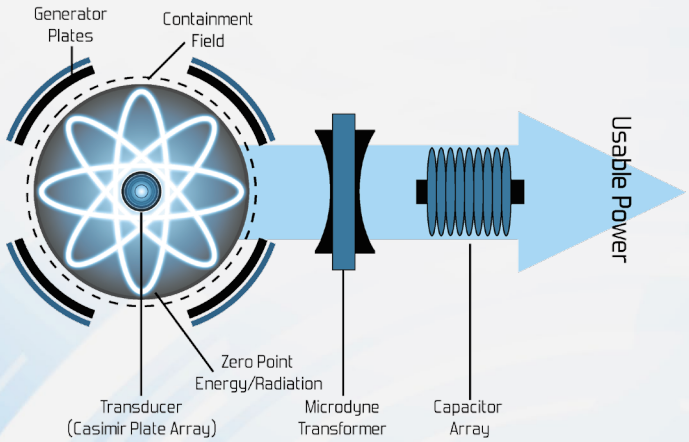
Zero Point Power

*The theory for zero-point energy cells was known for millennia, but practical cells only became a reality with the development of extra-dimensional 2-space (planing) technologies. Most of a ZIP cell's transducer (the **ZIP core** or **Casimir plate array**) exists "trans-dimensionally"—the ZIP cell is merely a visible n-space "socket" to the unlimited other-dimensional ZIP field. ZIP cell size therefore relates only loosely to the power provided, and seemingly innocuous-looking microcells can produce vast amounts of power.*

ZIP Cell Components

- ***Transducer**: The ZIP core, comprising 1 x 10^{23} c-plates—**Casimir plates**, each a few atoms thick, of gold-coated quartz—most of which don't actually exist in n-space. Transducing energy from trans-dimensional space via a dimensional breach known as the **Heisenberg minimum** (the ZIP core diameter), this creates a massive torsion field shielded by a **containment field**.*
- ***Containment Field**: The energy shield containing the torsion field and its associated z-radiation.*
- ***Generator**: The unit which generates usable power from the ZIP core output.*
- ***Microdyne Transformer**: The unit which steps up the generator output into usable power.*
- ***Capacitor**: The unit which accumulates energy for make-points, planing engines, etc, to use.*

Zero Point Cell Schematic



No Faster-Than-Light Communication

Interstellar communication is limited by the speed of light, or by communications carried by planeships. The **Mindjammers** are the Commonality's com-ships, travelling between worlds, updating the Mindscape, keeping information flowing between the stars. In the limited number of Core Worlds already connected by 3-space gates (page 140), information transfer is nearly instantaneous. Where Mindscape comms are absent or impractical, communication is by tightbeam maser or similar transmission. Tightbeam comms usually require line-of-sight and have limited range. Most comms of T8 or higher (including Mindscape implants) possess a tightbeam backup with a range of 500 km.

Ubiquitous Anti-grav

The Commonality achieved gravity control millennia ago, and anti-grav is its main slower-than-light propulsion technology, from starship gravity engines to the suspensor modules powering flyers, and the inexpensive micro-suspensors used in everything from drones to small flying toys.

Extreme Miniaturisation

With recent developments in 2-space technology, Commonality equipment is only as big as it needs to be. Devices can be vanishingly small—but most people prefer things at least hand-sized for practical use.

No Mindscape Consciousness

The Mindscape is a data storage medium and not a consciousness. While organic and synthetic minds access the Mindscape and control virtual avatars there, they have discrete physical existences (brains, for want of a better word), required for the phenomenon of consciousness to emerge. The situation is complicated by the existence of **sentinels** and other autonomous Mindscape helper routines, which possess a high degree of artificial intelligence but which are not conscious. The distinction is vital: **Mindscape nodes** are physical installations housing synthetic sentiences which manage and monitor Mindscape communication, but the Mindscape is the virtual space where communication takes place and where information is stored.

No Persistence of Identity

Individual identity is a phenomenon which emerges from a consciousness localised in a physical "brain"—however you define that brain (some are quite large…); it's likely quantum-level phenomena play a crucial role. This means that while Mindscape comms may permit the thoughtcasting of memories and even personality matrix facsimiles in the form of **thanograms**, it's not possible to transfer individual entities from one physical brain to another. For this reason, **eidolons** (page 30) are always imperfect copies of their thanogram sources, separate individuals and in no way a continuation of the original entity. When a brain housing a mind is destroyed, that mind dies; any subsequent copies are different individuals. This is equally true of synthetics as biological sentiences. If you destroy an organic brain or a synthetic core corpus, you kill the individual and any recording of their mind that remains is always a distinctly different individual. Anyone who knew the original person can easily tell the difference after communicating with the synthetic for a short time.

No Matter Transport—but Matter Creation

Less a technical issue than one of persistence of identity, matter transport is destructive of the original, merely creating a copy at the destination (with sufficient energy, originals need not even be destroyed). New 3-space technologies provide more reliable near-instantaneous travel. Nevertheless, matter transport research has led to breakthroughs in mass/energy conversion. A **makepoint** (M/EC-Point) duplicates or creates matter, given sufficient energy; even with a ZIP plant, however, quantities are small. For larger amounts of material, physical mining and extraction is still more economically feasible, but for food and air replenishment on starships and space habitats, ammunition creation in weapons, and medical product synthesis, makepoints provide enormous advantages.

COMPARATIVE LEVELS OF TECHNOLOGY

Mindjammer Tech Indices and ***Traveller*** Tech Levels are different, and not merely because Tech Indices go from T0 to T11 and Tech Levels go from TL0 to TL22. In the ***Mindjammer*** universe, genetic engineering (known as **genurgy**) takes off at T6, which is similar to ***Traveller*** TL8-TL9, but the equivalent of antigravity and reactionless thrusters do not appear until T7, similar to ***Traveller*** TL10-TL11. T8 is when true artificial intelligence appears, while in ***Traveller*** this doesn't happen until after TL15. Also, faster-than-light travel doesn't appear in ***Mindjammer*** until T9, equivalent to ***Traveller*** TL15-TL18.

In addition, the ***Mindjammer*** universe has technologies such as fields, effectors, and ZIP cells, which largely don't appear in ***Traveller***. As a result, the conversion between Tech Indices and Tech Levels is necessarily approximate, and thinking about ***Mindjammer*** technology in terms of ***Traveller*** Tech Levels misleading. That's why this book explicitly uses ***Mindjammer*** Tech Indices, except when specifically referring to technologies and pieces of equipment from the ***Traveller Core Rulebook***, the ***Central Supply Catalogue***, or ***High Guard***.

Table 5-1: Comparative Levels of Technology shows the approximate conversion between TI and TL, and a description of the advances that appear at each Tech Index.

Table 5-1: Comparative Levels of Technology

Tech Index	Comparable Traveller TL	Description
T0 Post-Animal	TL0	Club, spear, cudgel, primitive herbalism, runners, caves and huts.
T1 Stone Age	TL0	Basic maths, slaves, ceramics, memory, domesticated animals, dugout canoes and rafts, hunter-gathering and agriculture.
T2 Metal Age	TL1	Bow, sling, sword, jack armour, catapult, geometry, heliograph, metal, towns, mud brick buildings, irrigation, disease diagnosis, the wheel, galleys, small sailing vessels, water wheels, libraries, mining.
T3 Age of Enlightenment	TL2 – TL3	Muzzle-loading rifles, flintlocks, algebra and calculus, telegraph, printing press, cement, surgery, canals, anatomy, moveable axles, road systems and stagecoaches, sailing ships, magnetic compasses, mechanical clocks, wind power, advanced navigation, hot air balloons, early electricity, coal, primitive batteries; libraries, factory system, early steam power.
T4 Industrial Age	TL4 – TL5	Cartridge ammo, explosive grenades, shotguns, mesh armour, gatling guns, armoured vehicles, steel armour, mortars, adding and calculating machines, telephones, radio and radar, vaccines, x-ray diagnosis, trains, ground cars, tracked vehicles, early submersibles steamships, dirigibles, gliders, early airplanes and rockets, internal combustion engines, primitive automation, steam engines, skyscrapers.
T5 Computer Age	TL6 – TL7	Autoweapons, grenade launchers, cloth armour, submachine guns, nuclear weapons, computers, satellite comms, television, basic prosthetics, organ transplants, viruses, amphibious vehicles, advanced submersibles, helicopters, hovercraft, high speed trains, SCUBA, supersonic jets, space probes, manned rockets, satellites, fission, solar cells, automation and early robotics.
T6 Age of Genurgy	TL8 – TL9	Basic laser weapons, ablative armour, mass drivers, RAM grenades, sonic weapons, parallel computers, fibre optics, optical storage, voice control, arcologies, orbital cities, space elevators, monatomic hydrogen and metastable helium rockets, early weather control, advanced 3-d printers, basic genurgy (artificial organs, limb regeneration, slow drugs, artificial gills), primitive Mindscape implants, voice transcription, cryonics, early triphibian vehicles, hypersonic jets, orbital shuttles, interplanetary travel, advanced plasma drives, room temperature superconductors, massive fusion power plants, proto-Mindscape, semi-intelligent robots, broadcast power.
T7 First Age of Space	TL10 – TL11	Combat armour, null (laser) weapons, protein disruptors, advanced combat rifle, reflec armour, composite armour, haze and dispersion fields, holovideo, undersea cities, genurgy (antiviral vaccines, growth quickening, improved augmentations, rejuve, and xenomorph creation), advanced automated factories, gravity engines, STL starships, compact fusion power plants, stasis fields, proto-Mindscape, simulated intelligence robots.
T8 Age of Ubiquitous Intelligence	TL12 – TL14	Blasters, gauss rifle, energy swords, advanced defensive fields, advanced weather control, major terraforming, gravitic cities and early plateworlds, advanced genurgy, longevity augmentation, Mindscape implants, ZIP cells, synthetic intelligence, thanograms and eidolons, widespread use of anti-grav, relativistic starships, early variform mechanicals and variform vehicles.
T9 Second Age of Space	TL15 – TL18	Disintegrator rifles, meson weapons, monofil blades, regenerating ammo, torsion field projectors, makepoints, global terraforming, large plateworlds, FTL planing, variform synthetics, prototype and in-system 3-space gates.
T10 Age of 3-Space	TL19 – TL21	Disintegrator wands, torsion field weapons, technologies composed equally of matter and fields, singularity fields, improved field-based variform designs, mobile worlds, initial interstellar 3-space gates, Far Gate Project.
T11 Interdimensional Age	TL22+	Displacer weapons, transdimensional awareness, total information awareness, transmutation, matter transmission, ubiquitous energy, materialisation, transdimensional travel, dyson spheres, ringworlds.

CHAPTER SIX
EQUIPMENT

"With a thought, Jackson Stark enhanced his virtual vision overlay, diminishing the smoke-filled chaos into a fine blue-green lattice with red tactical markers. His disintegrator rifle chattered back advice and commented on the field disposition—the walker was clearly a custom model and likely had unexpected upgrades, but its frame was a polymer base reinforced with transzanthrian alloys—pretty much standard planeship hull metal. Dizzy could burn through that no trouble."

Much of the equipment described in the ***Traveller Core Rulebook*** and the ***Central Supply Catalogue*** exists in ***Mindjammer***, but some of it does not. Additionally, a great deal of equipment unique to this setting also exists which isn't described in existing ***Traveller*** books. The equipment from the ***Traveller Core Rulebook*** and the ***Central Supply Catalogue*** that exists in the ***Mindjammer*** setting is mentioned below, as is equipment that specifically does not exist, and equipment that does exist but is somewhat different. However, most of the following chapter consists of new equipment, unique to ***Mindjammer***.

ACQUIRING EQUIPMENT

Acquiring equipment on worlds with the same TI is usually easy, as is finding such equipment on a higher TI world. The main complication is locating restricted equipment; in the Commonality and on many other worlds, restricted equipment is only available to military and security personnel, although Rogues may attempt to acquire it via theft, bribery, and blackmail.

Acquiring equipment on worlds with lower TIs than the equipment is more challenging. New Traders and traders from other star-faring polities visit lower TI worlds to sell their wares, and uplifters working with the Commonality have access to more advanced equipment, but it's rarer than locally produced goods, and also in high demand, and therefore more expensive, regardless of the world's economic system.

Rolls to purchase equipment incur a DM-2 per TI difference. Associated prices are +100% higher for equipment +1 TI higher than the local TI, and +200% higher for equipment +2 TIs higher. It's not usually possible to purchase equipment +3 TI or more higher than the local TI, unless you encounter an off-world trader who is selling a specific item. In this case, the price is usually at least +400% higher.

Acquiring Restricted Equipment

Some equipment, like heavy weapons and hardware designed for espionage, is restricted so that ordinary civilians and other unauthorised personnel can't obtain it. During character creation, any character in the Military, Rogue, or Security careers can acquire restricted equipment, but others can't. Characters who've been in one of these three careers but are no longer can only acquire restricted equipment from longevity packages or benefit rolls derived from those careers.

After character creation, characters may try to acquire restricted goods from an organisation, if they have a connection to one, or may make a Streetwise check to locate and purchase the equipment they're seeking in a shady manner. Some societies only permit specially authorised personnel to use restricted equipment, and so characters will need to leave such items locked up in their ship or at special facilities at the port, or smuggle it past local security.

Reverse Engineering Equipment

Some worlds get around the scarcity of higher TI items by attempting to reverse engineer them. Reverse engineering higher TI equipment is impossible if the equipment is 3 or more TIs higher than the world's TI. A T6 world may duplicate T7 and T8 technology, but can't even attempt to duplicate T9 devices (such as planing engines) without years of research to increase the world's overall TI. See page 217 for some of the ways worlds can attempt to increase their technological capabilities.

Reverse Engineering Side Effects: Even when scientists and engineers manage to reverse engineer a higher tech device, results may be problematic and unpredictable. The following limitations and side effects apply to all reverse engineered tech from higher TIs:

- Any device reverse engineered from one TI higher is 25% larger / heavier, and its primary quality (speed for a vehicle, protection for armour, damage or range for weapons) is reduced by 10%.
- Any device reverse engineered from two TI higher is 50% larger / heavier, and its primary quality is reduced by 25%.
- Roll on Table 6-1: Reverse Engineering Side Effects for each device. Roll once using 2D for devices one TI higher, and twice using 2D+2 for devices two TIs higher.

Table 6-1: Reverse Engineering Side Effects

Roll	Side Effects
2-3	No side effects.
4-5	Device is twice as large / heavy as normal.
6	Device is slow to respond, requiring 1D turns to activate and imposing a DM-3 penalty on Initiative.
7-8	Device is difficult to use; all rolls incur a Bane.
9	Device fails and must be repaired if user rolls an average or worse failure.
10	Device fails and must be repaired if user rolls an average failure, and fails catastrophically if the user rolls an exceptional failure.
11-13	Device has dangerous side effects whenever used.
14	Device explodes the first time it is used. The more powerful the device, the larger the explosion. Most handled devices only do 1-3D, but exceedingly powerful devices can do as much damage as a frag grenade (***Traveller Core Rulebook***, pages 123-4), or even a pocket nuke (ibid., page 127).

ARMOUR

All armour from the ***Traveller Core Rulebook*** (pages 94-95) and the ***Central Supply Catalogue*** (pages 11-26) of TL12 and below exists in the ***Mindjammer*** setting, except for TL10 (T7) and TL12 (T8) vac suits, which are replaced by p-suits (see below). The Diplo Vest (page 12), Combat Environment Suit (page 20), and the Pressure Sleeve (page 23) are both T6; the three Poly Carapace versions (page 13) are T7. Grav Enhanced Powered Plate (page 25) and TL14 Powered Plate (page 26) are T8 and powered by ZIP Cells. Battle Dress *per se* does not exist (but see below).

At TL8 (T6) and above, air supplies are provided by the Feeder Tank option (below), and at TL12 (T8) and above powered armour is powered by ZIP Cell. The following types of armour are also available.

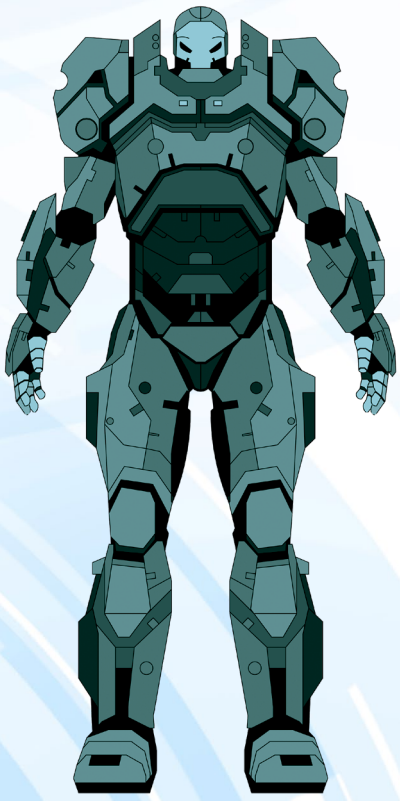
New Armour

ASSAULT ARMOUR (T9)

This armour is equivalent to TL14 battle dress, but includes the following options: Feeder Tanks, PSA, TL14 (T8) Thruster Pack.

COMBAT SUIT (T6)

A heavy duty adaptive weave coverall designed for combat use. At TL7+ it's usually combined with a dispersion field.



Hi-Threat Assault Armour

HI-THREAT ASSAULT ARMOUR (T9)

High-end powered armour, sealed and with a sentient exoskeleton, this is the nearest physical armour gets to a fully enclosed combat walker (page 125). It's massive and extremely intimidating, and is treated as TL14 battle dress, but with increased protection and a total STR bonus of +9. Some high-end versions incorporate repulsor or assault fields.

LIFTER (T9)

A large exoskeleton used for lifting and moving heavy loads, it may be piloted physically or remotely using technopsi. It provides the wearer with +6 STR and +6m to Move, and permits movement at Very Slow speed (up to 50kph) almost indefinitely (the suit takes over the wearer's movements). It provides no bonuses to DEX, and while it's powered by ZIP cell, if the power ever fails or is turned off, the STR and Move bonuses vanish and the wearer suffers a -2 penalty to DEX until power is restored. The suit provides minor armour and radiation protection for use in hazardous environments, and can be fitted with a feeder tube for short term life support. It carries one crew, no passengers, and can carry up to 1 ton of cargo.

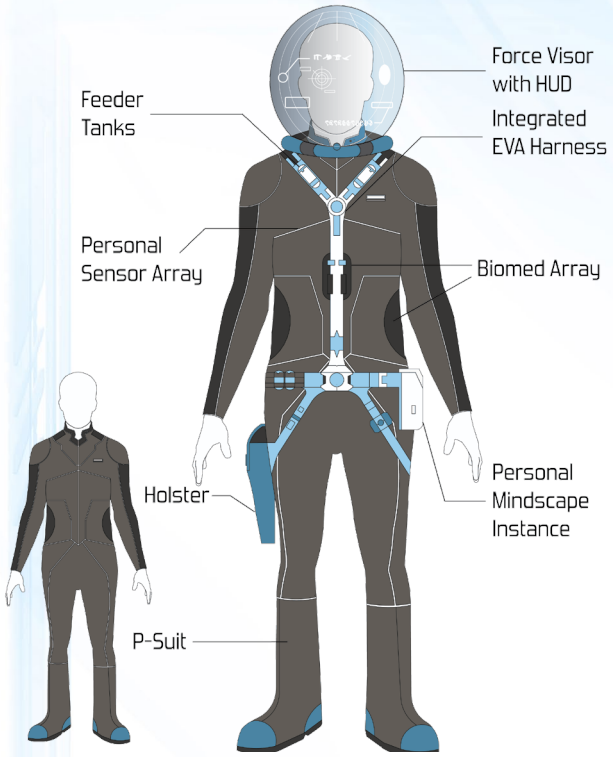
Lifter

LOW SIGNATURE INSERTION SUIT (T8)

This armour is designed for stealth. It automatically incorporates the Audio Damping and Chameleon (Vislight) options. It's also designed to not shed particles unless damaged, so it leaves no traces that advanced sensors can locate or identify.

P-SUIT (T7)

A one-piece fitted adaptive weave coverall incorporating a haze field, standard issue for active personnel. Low-powered, with a force visor sealing against inimical or hostile environments, and 3 hours of breathable air recycled from the wearer's body, it can also easily incorporate the following options: Feeder Tanks, TL10 (T7) Medikit, PSA, Thruster Pack.



- **T8**: A p-suit is now as comfortable as slightly bulky ordinary clothing and can be worn casually. It incorporates the Self-Sealing and Smart Fabric options.
- **T9**: T9 p-suits now incorporate the Variform option, allowing them to become almost any other suit of clothing. They require no training to use.

SHOCKSUIT (T9)

A slightly bulkier version of the combat suit, the shocksuit comprises a reactive weave powered by a built-in ZIP cell and the Variform option.

VENU LIGHT ARMOUR (T6)

Also known as a **Venu status suit**, this includes various light armours worn by Venu officers and commanders. It incorporates a Venu mask, and can be pressurised for a few minutes. Shipboard officers often combine it with the TL9 (T6) Thruster Pack option.

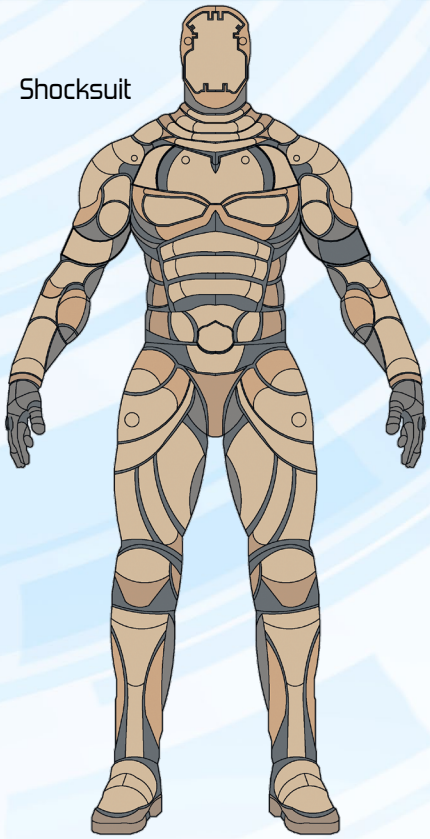
VENU MARAUDER ARMOUR (T7)

The best available Venu armour, this powered exoskeleton is dangerous to wear or even to be near because it leaks z-radiation (page 153), exposing everyone within 5m to 2D rads/hour. It functions as a primitive form of battle dress, providing wearers with +3 STR, and incorporating the Feeder Tank option for unlimited life support. All weapons used

Table 6-2: New Armour

Armour Type	Protection	TI	Rad	KG	Cost	Required skill
Assault Armour [R]	+20	T9	200	80[2]	Cr100000	Vac Suit 1
Combat Suit	+8 +14[1] (+9)	T6 T7	10 80	3 4	Cr1000 Cr6000	- -
High-Threat Assault Armour [R] (with repulsor field) [R]	+28 +36[1] (+28)	T9 T9	300 400	180[2] 182[2]	Cr150000 Cr160000	Vac Suit 2 Vac Suit 2
Lifter	+10	T9	70	30	Cr18000	Vac Suit 0
Low Signature Insertion Suit[R]	+8	T8	20	8	Cr20000	-
P-Suit T8 P-Suit T9 P-Suit	+8[1] (+6) +9[1] +7) +11[1] (+9)	T7 T8 T9	50 60 70	6 4 3	Cr10000 Cr11000 Cr30000	Vac Suit 0 Vac Suit 0 -
Shocksuit	+12	T9	30	4	Cr1500	-
Venu Light Armour	+10	T6	-	6	Cr8000	Vac Suit 0
Venu Marauder Armour [R]	+18[1] (+13)	T7	170	120[2]	Cr200000	Vac Suit 2
Venu Trooper Armour	+13[1] (+11)	T7	80	100[2]	Cr90000	Vac Suit 1
Zero-G Armour	+9 +15[1] (+10)	T8 T9	20 100	8 6	Cr15000 Cr18000	Vac Suit 0 Vac Suit 0

[R]: This technology is restricted and unavailable to anyone who cannot purchase restricted equipment.
(+X): Armour value with field off.
[1] Including field, this armour also provides a DM-2 to all attacks against the wearer when the field is active.
[2] As powered armour, this armour supports its own weight. While powered and active, this armour's mass does not count against the encumbrance of the wearer, and is effectively weightless.



while wearing this armour count as having the Scope trait. It includes a dispersion field.

VENU TROOPER ARMOUR (T7)

A heavy duty suit of composite ceramic plate usually in Venu legion colours, it has a primitive unstable force field and is airtight, with limited EVA capability. It's fitted with a haze field and life support which lasts for two hours.

ZERO-G ARMOUR (T8)

This flexible suit of vac-sealed adaptive mesh is standard issue for Space Force marines and can recycle air for up to four hours even without the use of feeder tanks. It also incorporates the PSA and TL14 (T8) Thruster Pack options as standard, and can also incorporate Feeder Tanks. It's designed so that wearers suffer no penalties in low gravity or zero-g, and can fire weapons without the Zero-G trait without penalty. Improved Zero-G Armour adds a dispersion field for additional protection.

- **T9**: Zero-G Armour now automatically incorporates a dispersion field as well as improved armour that is lighter and more comfortable.

Armour Options

All armour options and modifications from the ***Traveller Core Rulebook*** (page 96), and from the ***Central Supply Catalogue*** exist and are available for adding to applicable armour types, with the following modifications:

- The Chameleon (Vislight) option costs only Cr10000.
- The Extended Life Support option is replaced by Feeder Tanks (below).
- The TL12 (T8) Thruster Pack option does not exist, but the TL14 (T8) Thruster Pack option only costs Cr6000.
- No psionic modifications exist because true psionics (ie not technopsi) are currently unknown in the ***Mindjammer*** setting.
- The Computer Weave option does not exist, because at T6+ all armour and other devices automatically contain a non-sentient AI interface, or a basic intelligence. See Operating Sentient Devices (page 107) for further information.

AUDIO DAMPING (T7)

The armour is designed to be silent, and incorporates a network of speakers and microphones to broadcast sounds to actively offset any noises made by the wearer. Any hearer more than 3m from the wearer suffers a DM-4 on any rolls to hear sounds made by the wearer, including moderate noises like stepping on a creaky floor, but excluding loud noises like weapons fire. **Cost**: Cr4000.

FEEDER TANKS (T6)

Each 1-litre genurgy-based tube contains tailored bacteria that can create breathable air to sustain a single character indefinitely, as long as these microbes can absorb the user's exhaled carbon dioxide and water vapour. The only maintenance they require is a small nutrient pack once a month. **Cost**: Cr3000.

PSA (T8)

The armour includes a built-in personal sensor array (page 114). **Cost**: Cr2200 + the cost of any additional sensors.

VARIFORM (T9)

The Variform option allows the user to change the armour's colour, pattern, and surface texture in an instant. In addition, when used on any armour with a mass of 4kg or less, it can make the armour appear to be any type of ordinary clothing. Armour bulkier than 4kg can duplicate the appearance of other armour which is no more than 50% lighter or heavier, allowing Commonality soldiers to appear to wear Venu armour.

The Variform option automatically incorporates the functions of the Chameleon (Vislight), Self-Sealing, and Smart Fabric options (***Traveller Core Rulebook***, page 96), as well as duplicating the effects of the Climbing Pads, Natural Weapons (+2), and Prehensile Feet augmentations. **Cost**: Cr25000.

AUGMENTATIONS

Augmentations are modifications to your body. They're "always on", and can't easily be removed. They include mechanical implants and prostheses (cyborgs), synthetic enhancements (artificial organs), and genurgic modification (hacking DNA and using quantum bio-substrates to induce the body to reshape itself). Acquiring an augmentation requires an augmentation facility of appropriate tech index. Recovery time for gaining an augmentation is 1D weeks at T6 and T7, and 1D3+1 days at T8+. The following augmentations are available in ***Mindjammer***.

Unrestricted Augmentations

The following augmentations are available to all characters from appropriate TI facilities. All versions of the Cognitive Augmentation, Dexterity Augmentation, Endurance Augmentation, Enhanced Vision Augmentation, Skill Augmentation, Strength Augmentation, and Subdermal Armour Augmentation from the ***Traveller Core Rulebook*** (page 99) can also be purchased as unrestricted augmentations. In addition, all versions of the following augmentations from the ***Central Supply Catalogue*** can be purchased as unrestricted augmentations: Additional Manipulator (page 88), Assisted Ambulation (page 90), Autonomous Locomotion Rig (page 86), All-Temperature Epidermal Symbiote (page 88), Assisted Ambulation (all 3 versions only require +50% food) (page 90), Cockpit Sensory Suite (page 90), Muscular Bridging (page 89), Peripheral Vision Enhancement (page 92), Shriekerbox (TL12 only) (page 92), and the Soldier's Organ Package (page 89). However, some of the augmentations from both books have different prices and tech indices, as shown on the table overleaf.

The animal traits Amphibious (breath-holding), Camouflaged, Enhanced Smell, Fast (+3 and +6), Fast Metabolism (+2), Gliding, Heightened Senses, Natural Weapon (+2), Photographic Memory, Radiation Tolerance, Sonar, Temperature Tolerance (cold, hot, or both), and Vacuum Tolerance are also all available as genurgic augmentations. Individuals with the Fast Metabolism augmentation must consume 25% more food than normal.

New or Modified Unrestricted Augmentations

ACCELERATED HEALING (T6)

This implant combines specialised nanotech with engineered bacteria, allowing you to heal faster and easier than normal. It automatically provides first aid, restoring 5 characteristic points within five minutes of you being injured. Additionally, when using this augmentation, you automatically regain 5 + Endurance DM characteristic points per day, and do not require surgery to heal severe injuries. Medical care in a hospital increases the characteristic points regained by 1 + the doctor's skill points per day.

ASSISTED LEAP (T6)

Your legs have been modified to excel at jumping. You double the distance you can jump (for both high and long jumps, see ***Traveller Core Rulebook***, page 63), and gain an automatic DM+2 to all Athletics (DEX) checks involving jumping.

AUTOTROPH (T7, T8, OR T9)

You can synthesise your own food and, apart from water and a few trace elements every week or two, you need never ingest food. Most versions of this augmentation provide you with unusually coloured photosynthetic skin and require you to spend at least 8 hours a day in relatively bright sunlight. The T8 version lets you synthesise food using electricity, either by plugging into a power source every day or using a small implanted ZIP cell. The Improved Autotroph augmentation includes an implanted makepoint, and removes the need for the user to eat, drink, or breathe.

Table 6-3: Unrestricted Augmentations (Part 1)

Augmentation	Improvement	TI	Cost
Accelerated Healing	Enhanced healing.	T6	Cr20000
Additional Manipulator[2]	Gain a prehensile tentacle.	T7	Cr7500
All-Temperature Epidermal Symbiote[2]	Remain comfortable in temperatures from -30º to 50ºC.	T8	Cr2500
Amphibious (breath-holding)	Hold breath 10 minutes and improved underwater movement.	T6	Cr7000
Assisted Ambulation[2] (TL 13,14, and 15)	Reduce sleep to 4, 2, or 1 hour/night.	T8	Cr20000 per reduction in sleep needed
Assisted Leap	Double all jump distances.	T6	Cr10000
Autonomous Locomotion Rig[2]	Walk to a designated location even when unconscious.	T7	Cr15000
Autotroph Improved Autotroph	Produce own food from sunlight. Produce own food from electricity. Eliminate the need to breathe, drink or eat.	T7 T8 T9	Cr7000 Cr10000 Cr20000
[T] Camouflaged	Change skin colour, +2 to Stealth checks.	T6	Cr10000
Climbing Pads	+4 to climbing, stick to walls like a gecko.	T6	Cr10000
Cockpit Sensory Suite[2]	DM+1 to all vehicle checks at high speed.	T8	Cr50000
Cognitive Augmentation[1]	INT +1 to +3; to +6 at T9; to +9 at T10.	T8	Cr100000 per +1 INT
Comprehension Augmentation	EDU +1 to +3; to +6 at T9; to +9 at T10.	T8	Cr100000 per +1 EDU
Cosmetic Enhancer	Alter appearance gradually.	T6	Cr6000
Defence Chip	Improved dodging, DM+2.	T8	Cr25000
Desert Adaptation	Heat tolerance and reduced need for water.	T7	Cr6000
Dexterity Augmentation[1]	DEX +1 to +3.	T8	Cr100000 per +1 DEX
Endurance Augmentation[1]	END +1 to +3.	T8	Cr100000 per +1 END
Enhanced Metabolism	Resist diseases and poisons.	T6	Cr10000
[T] Enhanced Smell	Greatly improved sense of smell.	T7	Cr9000
Enhanced Vision[1]	Binoculars, IR / Light Intensification.	T7	Cr12000
Fast (+3) Fast (+6)	+3m to movement as a minor action. +6m to movement as a minor action.	T6 T7	Cr9000 Cr15000
[T] Fast Metabolism	DM+2 to initiative checks, must eat 50% more food.	T6	Cr15000
Gills	Breathe water and improved underwater movement.	T6	Cr10000
[T] Gliding	Fly while gradually losing altitude.	T6	Cr8000
Grav Lifter Implant	Implanted grav belt.	T8	Cr60000
[T] Heightened Senses	+1 to Recon and Survival checks.	T6	Cr7000
Haze Field Implant	Implanted haze field.	T8	Cr20000
Longevity	Character ceases ageing.	T8	Cr5000
Metabolic Control	Duplicate effects of fast drug, metabolic accelerator, or stims.	T7	Cr30000
Mindscape Implant	Mindscape access (see **Chapter 7: The Mindscape**).	T6	Cr3000
Muscular Bridging[2]	+1 to STR and DEX, and +3m to movement as a minor action.	T8	Cr250000
Nanocells	Control devices by touch, even when cut off from the Mindscape. Requires a Mindscape implant.	T8	Cr5000

Table 6-3: Unrestricted Augmentations (Part 2)

Augmentation	Improvement	TI	Cost
[T] Natural Weapon (+2)	+2 to unarmed damage due to claws.	T6	Cr3000
Peripheral Vision Enhancement[2]	Improved peripheral vision.	T6	Cr15000
Photographic Memory	Perfect recall.	T6	Cr6000
[T] Prehensile Feet	You have hands instead of feet.	T6	Cr5000
[T] Radiation Tolerance	Reduce radiation dosage by 400 rads and heal 50 rads / day.	T7	Cr15000
Rejuve	Character reduces age by up to 3 terms.	T7	Cr5000
Respirocytes	Survive w/o oxygen for up to 30 minutes.	T8	Cr20000
Sensory Enhancement	+2 to all checks involving a single sense.	T6	Cr15000
Shriekerbox[2]	Artificial voice box that can mimic other voices or act as a megaphone.	T7	Cr12000
Skill Chip	Gain one level of a halo skill.	T8	Cr25000
Soldier's Organ Package[2]	Enhanced lung capacity, poison tolerance, wakefulness, and END checks.	T8	Cr200000.
Sonar	Can use sonar on land and underwater.	T6	Cr12000
Subdermal Armour[1]	Armour +1 to Armour +4.	T6	Cr10000 per +1 Armour
[T] Temperature Tolerance (both) (either only hot or only cold)	Endure temperatures from -40ºC to 60ºC. Endure temps down to -40ºC or up to 60ºC.	T6 T6	Cr7000 Cr5000
[T] Vacuum Tolerance	Survive in vacuum; requires Subdermal Armour.	T7	Cr25000
Variform Body	Alter shape.	T9	Cr150000
Variform Physiognomy	Alter appearance rapidly.	T9	Cr20000

*[1] From the **Traveller Core Rulebook**.*
*[2] From the **Central Supply Catalogue**.*
*[T]: Trait; see **Traits** (page 34) for details*

CLIMBING PADS (T6)
You possess pads like those on the feet of a gecko on your hands, feet, knees, and forearms. You gain a DM+4 to all Athletics (dexterity) checks involving climbing, climb at half your normal Move, and can stick to walls or ceilings.

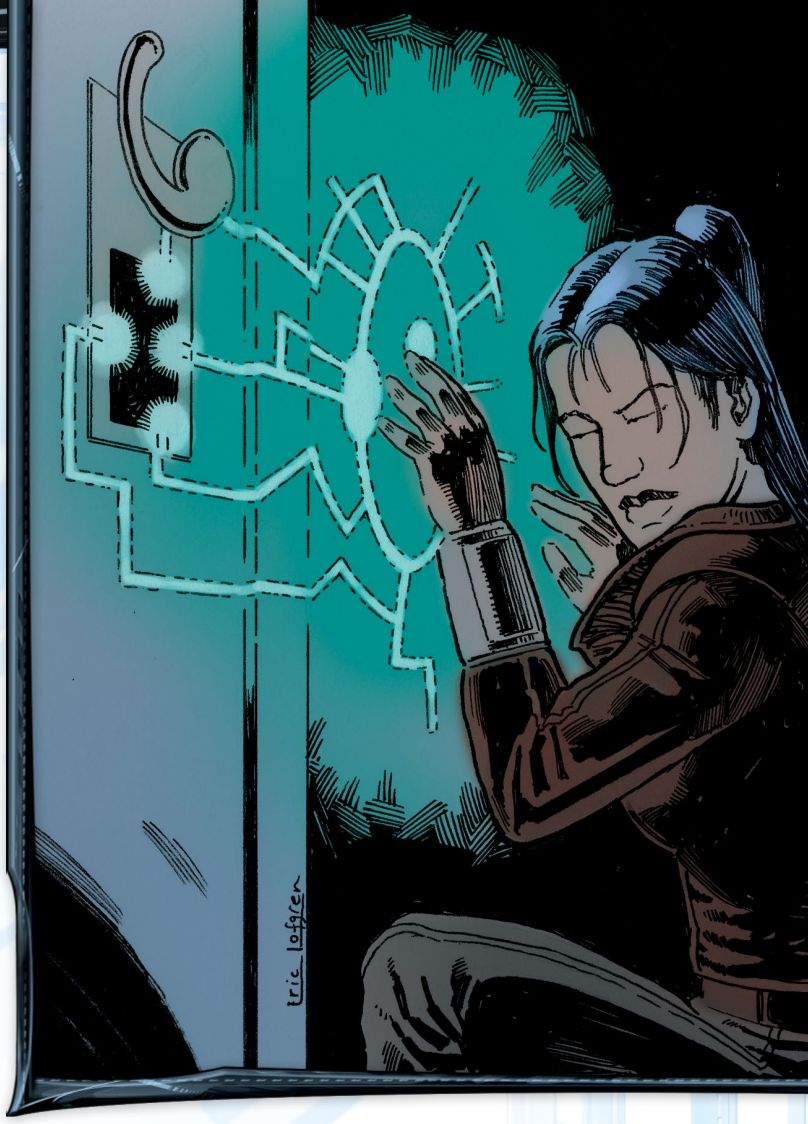
COMPREHENSION AUGMENTATION (T8)
Your general knowledge is increased via speed learning techniques, and your ability to process information is enhanced by drugs boosting synapse growth. Each level of this augmentation increases your EDU by +1.

COSMETIC ENHANCER (T6)
This augmentation lets you alter your skin, hair, and eye colour, your muscle tone and hormone levels, and even change sex. Relatively minor changes like altering skin, hair, or eye colour require 1D x 10 minutes to complete; sex changes and changes in build require 1D x 4 weeks. The augmentation provides a Boon to disguise and social interaction checks relating to physical appearance, including seduction and intimidation.

DEFENCE CHIP (T8)
This augmentation incorporates advanced evasion and self-defence routines that increase the penalty suffered by attackers when you dodge or dive for cover by 2 (see "Dodging" and "Diving For Cover", ***Traveller Core Rulebook***, page 72-73).

DESERT ADAPTATION (T7)
This augmentation lets you survive comfortably in deserts and other arid environments. You need one third the amount of water that a normal human requires, and can survive without any water whatsoever for up to three weeks, regardless of temperature. Ordinary humans can only survive without water for a maximum of 7 days in cool temperatures or 3 days in hot temperatures.

ENHANCED METABOLISM (T6)
You're immune to all common toxins and diseases, and gain an automatic DM+2 to checks to resist other diseases and toxins. This augmentation also doubles characteristic points



regained through natural healing, and reduces your cumulative radiation exposure by 50 rads/day.

GILLS (T6)

This augmentation allows you to breathe water as easily as air. You can only breathe water that contains dissolved oxygen and which is not highly polluted or stagnant. It also includes minor physiological modifications, like webbed fingers and toes, that allow you to swim at your normal Move speed.

GRAV LIFTER IMPLANT (T9)

You have an implanted grav belt (***Traveller Core Rulebook***, page 114), which provides all the advantages of a normal grav belt.

IMPLANTED HAZE FIELD (T8)

You have an implanted haze field generator. You can generate a haze field at will: see haze fields (page 112) for more. Although the haze field generated can't be combined with any other field, like all fields, it can be made airtight or air-permeable at your discretion, and when airtight can even function as a p-suit if you also possess a source of air.

LONGEVITY (T8)

Your body regenerates to a physical age of "mature adult" and ceases ageing. In the Commonality, anyone without the Implant Reject flaw acquires this augmentation in childhood, and thus doesn't age after reaching adulthood.

METABOLIC CONTROL (T7)

This augmentation lets you replicate the effects of fast drug, metabolic accelerator, or stims (***Traveller Core Rulebook***, page 109) at will. Replicated drug effects occur two rounds after activation. You can end a slowed metabolic rate at will if you notice something unusual or problematic in your environment, but returning to your normal metabolic rate takes 1D minutes. The fatigue caused by metabolic acceleration requires at least one hour of rest to recover from. You can use metabolic acceleration when fatigued, but you remain fatigued when accelerated and you suffer additional damage and fatigue from using this effect. Stims have all the normal advantages and disadvantages, including causing damage.

MINDSCAPE IMPLANT (T6)

You gain a standard Mindscape implant as well as 1 level of a halo skill (page 77). See **Chapter 7: The Mindscape** (page 129) for more.

NANOCELLS (T8)

Nanocells must be used with a Mindscape implant. They allow you to control vehicles and technological devices by touch, even in locations with no Mindscape access. This augmentation consists of nanites that reside in the skin of your hands which become active when you touch a piece of advanced technology and use your Mindscape implant to command them to control the device. Nanocells don't work on most alien technologies, but do work with most devices made by human, hominid, xenomorph, or derived cultures of T6 or higher, and with all technology that can be accessed via the Mindscape.

Nanocells can control devices even when you're using a monitor band cloak (page 105). Normally, you must touch part of the device with your skin, but p-suit gloves and the gloves of other forms of protective gear can be modified to allow nanocells to work through them at no extra cost. A few paranoid or aggressive cultures like the Venu encrypt their devices so that anyone attempting to use nanocells to control a piece of technology must first use Interface (security) to disable these security measures.

RADIATION TOLERANCE (T7)

You can endure large amounts of radiation, and ignore the first 400 rads of radiation of any exposure. In addition, you automatically reduce your cumulative radiation exposure by 50 rads/day due to improved cellular self-repair mechanisms. Subdermal Armour (+2) or higher is a prerequisite for acquiring this augmentation.

REJUVE (T7)
This is less an augmentation and more a medical procedure that reduces your physical age by 3 terms (12 years), to a minimum of your age of physical maturity. Additional rejuve treatments are necessary, since you continue to age after receiving a rejuve treatment.

RESPIROCYTES (T8)
These artificial blood cells automatically store large amount of oxygen and can provide it to your body even in locations without breathable air. You can safely and comfortably go without air for up to 30 minutes, and automatically gain Athletics (END) +1.

SENSORY ENHANCEMENT (T6)
This augmentation gives you +2 to all checks to use a particular sense.

SKILL CHIP (T8)
This non-physical augmentation becomes part of your halo. Each purchase of a skill chip increases one of the character's halo skills by +1. There is no need to purchase level 0 halo skills. However, adjusting to a new halo skill is not an instantaneous process. This process of adjustment requires practice and review, which is handled similarly to the training rules in the ***Traveller Core Rulebook*** (page 52); see page 111 for more on acquiring a new halo skill.

SUBDERMAL ARMOUR (T6)
Subdermal Armour can now go up to +4.

VACUUM TOLERANCE (T7)
You can survive in vacuum and possess the equivalent of a built-in p-suit. This trait also allows you to survive indefinitely if you possess access to food and water. You no longer need to breathe, exactly as if you had built in feeder tanks. Subdermal Armour (+2) or higher is a prerequisite for acquiring this augmentation.

VARIFORM BODY (T9)
You can reshape your body at will. This augmentation is usually only available to synthetics (generally mechanicals and installations, but also including specially configured organic synthetics) and certain alien species, although natural-born organics (including humans) can conceivably also acquire it by submitting to some **very** invasive genurgy taking them far from their natural physiology. It lets you shift your form to duplicate the effects of the following additional augmentations: Accelerated Healing, Additional Manipulator, Assisted Leap, Camouflaged, Climbing Pads, Fast (+3), Natural Weapons (+2), and Prehensile Feet. In addition, you can adopt any skin pattern or colour, extend any limb up to 3m from your body, duplicate the effects of the Tentacles trait, and fit through any opening at least 15cm on a side. You may also trade points between DEX and STR as long as you don't reduce either to half its normal value or lower (round down). Your one limitation is that you can only duplicate two augmentations or traits at a time. Also, gaining new augmentations or making other changes requires at least 1D3+3 turns of concentration. However, created augmentations and other changes remain until you remove them.

VARIFORM PHYSIOGNOMY (T9)
This implant lets you swiftly alter the shape of your face, and the colour of your hair, eyes, and skin. You may modifiy your height by up to 10%. Changes require only 1D seconds to complete, and provide a DM+2 to disguise attempts. If combined with the Variform Body augmentation, you can duplicate the appearance of any human, hominid, or xenomorph of the same size category. However, without the appropriate augmentations, you may not be able to duplicate all of that genotype's abilities.

Restricted Augmentations
The following augmentations are only available to characters in careers which specifically give the character access to restricted augmentations as a benefit: Military, Rogue, and Security. Characters not in one of these three careers can't

Table 6-4: Restricted Augmentations

Augmentation	Improvement	TI	Cost
Aggressor Chip	Duplicate the effects of combat drug.	T8	Cr25000
Ballistic Tracking Lenses[1]	+1 to unaided ranged combat checks.	T7	Cr15000
[T] Bioelectricity	+2D bioelectric attacks by touch.	T6	Cr8000
Monitor Band Cloak	Conceal Mindscape implant's monitor band.	T6	Cr5000
Smuggling Container[1]	Gain a small shielded internal pocket.	T6	Cr10000
Special Ops / Black Chip	Permits Mindscape hacking and technopsi; requires a Mindscape implant.	T7	Cr15000 / Cr30000
Venom Glands[1]	Gain toxic saliva that causes 1D+3 additional bite damage.	T7	Cr10000
Weapon Implant[1]	Gain an implanted, concealed knife, stunstick, stunner, or null pistol in your forearm.	T7	Cr10000

*[1] From the **Central Supply Catalogue**.*
*[T]: Trait; see **Traits** (page 34) for details*

acquire this equipment during character creation and must acquire it illegally during play. The following augmentations from the ***Central Supply Catalogue*** may be purchased as restricted augmentations: Ballistic Tracking Lenses (page 90), Smuggling Container (page 89), Venom Glands (page 92), and Weapon Implant (any) (page 87). In addition, the animal trait Bioelectricity (+2D6), from the ***Traveller Core Rulebook*** (page 81) is available as a restricted augmentation.

New Restricted Augmentations

AGGRESSOR CHIP (T8)

This augmentation allows you to duplicate the effects of combat drug (***Traveller Core Rulebook***, page 109), and takes effect the round after you trigger it. Also, you only remain fatigued until you have rested for at least one hour. Using this augmentation while fatigued temporarily removes fatigue, but has no other effect beyond requiring you to rest for one additional hour before ceasing to be fatigued.

MONITOR BAND CLOAK (T6)

This augmentation dampens your Mindscape implant's monitor band, rendering your character virtually undetectable by Mindscape tracer, but also preventing you from taking any Mindscape actions while it's active. You can activate or deactivate this device at will. While often made as an implant, it can also be made as a portable device, which is usually the size and shape of a thin wristband or a small pocket watch.

SPECIAL OPS / BLACK CHIP (T7)

This augmentation requires a Mindscape implant as a prerequisite, which it enhances, permitting you to perform restricted technopsi checks like mindburn and Mindscape hacking (see page 129). Illegal versions of this augmentation (available to the Rogue career) are called black chips.

GESTALT LANGUAGE AUGMENTATION

Gestalt language is the next stage in the evolution of human language. It's used by trans- and post-human hyperintelligences, and is enhanced by emotional markers, Mindscape acceleration routines, and hyperlinguistic shortcuts—the so-called gestalts. Levels of gestalt language convey concepts with exponentially increasing speed and sophistication. Some are usable by non-augmented humans; others require enhancement, or even for the individual to have "gone post" (page 326). The lowest level gestalt language is standard Commonality speech, technically referred to as zero-gestalt.

Table 6-5: Gestalt Language Augmentations

Augmentation	Improvement	TI	Cost
Stage I Gestalt Communication	DM+2 to all Art (public speaking), Diplomat, or Persuade checks to provoke, intimidate, or otherwise elicit strong emotional responses.	T9	Cr15000
Gestalt Combat [R]	Use Stage I Gestalt Communication on Individuals unwilling or unable to receive your thoughtcasts.	T9	Cr25000
Gestalt Controller	DM+2 bonus to any Art (public speaking), Diplomat, or Persuade checks where you're attempting to create a specific outcome.	T9	Cr25000
Stage II Gestalt Communication	Communicate memoplexes.	T10	Cr40000

[R]: Restricted Augmentation.

Gestalt Language Augmentations

While ordinary humans can be affected by gestalt language, you need gestalt language augmentations to actively use it yourself. A combination skill chip and neural accelerator, gestalt language augmentations may be genurgic or mechanical. Lower level gestalt language augmentations are for human and other similar beings; higher augmentations are for posthumans like installation sentiences or post-human organics.

STAGE I GESTALT COMMUNICATION (T9)

Prerequisites*: Mindscape Implant, INT 10+*

Higher intelligences aggregate entire conversations into discrete utterances called **gestalts**, a form of hyperword. You may use gestalt communication via technopsi with this enhancement; it may or may not have a verbal element, but always has a substantial thoughtcast component. However, Stage I Gestalt Communication is non-creative; you work within a pre-defined hyperlinguistic milieu of ready-made gestalts. You can communicate large volumes of information at least 20 times faster than normal, giving a detailed description of an event or location (complete with sensory information) within a few seconds, and lengthy speech on a topic within a minute or two. You also gain a DM+2 to all Art (public speaking), Diplomat, or Persuade checks to provoke, intimidate, or otherwise elicit strong emotional responses. However, you only gain these bonuses when communicating with targets who are willing and able to listen to you and receive thoughtcasts from you. Because you and all listeners must be connected to the same Mindscape, you do not need to share a common language with listeners; automatic Mindscape translation eliminates all such problems.

GESTALT COMBAT (T9)

***Prerequisites**: Stage I Gestalt Communication and access to restricted augmentations*

This augmentation allows you to use Stage I Gestalt Communication on targets who are either not connected to the Mindscape or who are not willing to accept thoughtcasts from you. Instead, you can use the details of human and transhuman language and cognition to your advantage. However, you must share a common language with targets not connected to the same Mindscape.

GESTALT CONTROLLER (T9)

***Prerequisites**: Stage I Gestalt Communication and Social Science (linguistics) 2*

Gestalt controllers create the gestalts used in Stage I Gestalt Communication. This augmentation gives you a DM+2 to any Art (public speaking), Diplomat, or Persuade checks where you are attempting to create a specific outcome (which is most such checks). As a result, you excel at changing the opinions, beliefs, and mindsets of any interlocutor you are in Mindscape contact with.

STAGE II GESTALT COMMUNICATION (T10)

***Prerequisites**: Stage I Gestalt Communication, Social Science (linguistics) 3, INT 14+ and EDU 13+, personal TI T10+*

This augmentation can only be used by advanced corpuses and similarly powerful sentiences. You may create your own gestalts dynamically, on the fly, making your use of language immensely powerful, effectively forcing a target to accept a **memoplex** (page 131) of your choice. Using Stage II Gestalt Communication requires both you and all listeners to be on the same Mindscape and for the listeners to accept thoughtcasts from you. To force a target to accept a memoplex, you must make the following check:

- *Force a Target to Accept a Memoplex Using Stage II Gestalt Communication:* Difficult (10+)[1] Persuade check (1D seconds, INT).

  [1]*This difficulty level is for memoplexes that the target is neither especially receptive nor resistant to. Reduce the difficulty to Average (8+) for a memoplex which a target is receptive to, such as transmitting a memoplex to make a target more aggressive towards a particular group to a soldier from a warrior culture. Increase the difficulty to Very Difficult (12+) for a memoplex which the target is resistant to, such as transmitting a memoplex to make a target more aggressive towards a particular group to a committed pacifist.*

Even if the roll is successful, a forced memoplex usually only lasts a limited amount of time; see Table 6-6: Memoplex Duration above. A duration of "1 day" means the memoplex fades when the target sleeps or rests; "Indefinite" means it continues until the target has a strong motivation to replace it. Memoplexes which characters freely choose to accept last indefinitely.

Table 6-6: Memoplex Duration

Target is	Receptive to Memoplex	Neutral to Memoplex	Resistant to Memoplex
Marginal Success	1D3 days	1D+1 hours	1D x 10 minutes
Average Success	2D days	1 day	1D3 hours
Exceptional Success	Indefinite	1D days	1 day

Stage III Gestalt Communication

The Planetary Intelligence is the only known instance of Stage III Gestalt Communication: the non-linear communication of complete conceptual commonality. It's bound by the Treaty of Casuistry Shore (41 NCE) from unilaterally subjecting Commonality citizens to Stage III gestalt without explicit well-informed permission, although many Chembu participate on a daily basis.

Other Hyperlanguages

*While the Venu don't have gestalts per se, the mysterious **evocations** of the Dark Radiance may be gestalt analogues. They appear less negotiated than gestalt communication; evokers either impose interactions, or read information directly from collocutors.*

COMMUNICATIONS

All communications equipment from the ***Traveller Core Rulebook*** exists in the ***Mindjammer*** setting; however, much of it is rarely used in the Commonality or in other polities where Mindscape use is common. Mindscape implants operate as fully-functional comms as long as they have Mindscape connectivity, provided by personal, local (ship or installation), or global Mindscape instances (see page 136). Bugs function as described, but at T8 (TL12+) and higher bugs contain a basic sentience and can also move along almost any solid surface at speeds of up to 2m/turn. In addition, holographic projectors from the ***Central Supply Catalogue*** are available, but the TL12 holographic projector is T7, and the TL15 holographic projector is T8 (both on page 62 of the **CSC**).

COMPUTERS AND SOFTWARE

T5 (TL7) computers and software are unchanged from the ***Traveller Core Rulebook*** (pages 105-106), but thereafter computers and software are handled entirely differently in ***Mindjammer***. The following is a summary of advances at different TIs.

- **T6**: All devices contain simple non-sentient artificial intelligences that respond to verbal and Mindscape commands. Commands must be simple and direct, since the AI's ability to understand natural language is limited. Real-time language translation is possible, but inelegant and awkward.
- **T7**: All devices contain non-sentient AIs that respond to verbal and Mindscape commands and natural language utterances almost perfectly, with a moderate grasp of idioms, slang, and metaphor. T7 AIs often seem almost sentient. Real-time language translation is easy and ubiquitous.
- **T8+**: Basic sentiences are found in almost all devices. Although they lack creativity and complex personalities, they are nevertheless truly sentient, and easily understand speech and thoughtcasts. Within the Commonality, many devices lack verbal interfaces altogether, and can only be operated and contacted via the Mindscape.

Operating Sentient Devices

Non-sentient T7 AIs can operate devices or systems they're part of with a DM+2, exactly as if they were a person with 2 skill levels and a characteristic modifier of +0. At T8+, basic sentiences replace these AIs, with a DM+3 and operating their devices or systems according to their user's wishes. Characters with few or no skill levels in a particular type of equipment are free to let the basic sentience operate it for them.

*Strictly speaking, characters with relevant skills should use the task chain rules (***Traveller Core Rulebook***, page 60) to assist the basic sentience, or operate the device or system themselves and have the basic sentience aid them. In the latter case, the basic sentience makes a check as part of a task chain, and the character performs the final task check. In all these cases, the character and basic sentience make the same check, with identical difficulty and modifiers, except for modifiers provided from the task chain.*

However, making two rolls for every check is cumbersome, and we suggest players should generally apply a DM+1 to their own checks to simulate the aid provided by a T7 AI or T8+ basic sentience.

DRONES

Drones are ubiquitous in the Commonality, especially on T8+ worlds. Powered by ZIP cells and propelled by gravitic suspensors, most drones range from size Small (-4) to Small (-1), although both larger and smaller drones exist. While some drones are eidolons, most are basics, and are effectively useful equipment that users can also remote control via Mindscape. All robots in the ***Central Supply Catalogue*** (pages 70-76) of T11 (T7) or below are available, but most higher TL robots are not. The following robots from the ***Central Supply Catalogue*** are available and are also T7: the Centurion (page 72), Creeper Assassin (page 73), Spider Bomb (page 75), and the Urban Pacification Police Robot (page 76).

Standard Drone Equipment

All T8+ drones incorporate tightbeam transceivers capable of communicating with Mindscape implants, so even in regions without Mindscape access, individuals can continue to use remote control to operate them, unless the drone enters a location which is shielded from transceiver contact, which includes many basements and caverns and almost all secure locations. Drones are also equipped with **effectors** (page 115), 2 points of armour, a PSA equipped with EM and audio scanners, and suspensors that allow them to move at a speed of at least Fast. Their sturdy construction gives drones **hits** equal to animals one size larger (***Traveller Core Rulebook***, page 81). A drone of human size or smaller with no additional equipment costs Cr10000 regardless of size.

List of Drones

The following are the more common types of drones in the Commonality. There are many others.

Drone Accessories and Rules

Drones can use any of the following armour options (page 99): Chameleon (IR), Chameleon (Vislight), and Variform. Costs

and capabilities are as listed for drones of size Small (+1) to Small (-2). Halve the listed cost for smaller drones.

Variform drones may appear to be other drone types of the same size, and may disguise themselves as rocks, furniture, or other objects of approximately the same size and mass. They may also fit through openings normally only possible for items one size category smaller and possess all the advantages of Variform Armour (page 99).

Table 6-7: Drones

Type	Size	Cost
Combat Drone [R]	Small (-1)	Cr28000
Helper Drone	Small (-2)	Cr22000
Personal Protection Drone	Small (-4)	Cr42000
Sensor Drone	Small (-3)	Cr45000
Speaker Drone	Small (-2)	Cr10000
Stealth Drone [R]	Small (-4)	Cr30000

[R]: Unavailable to anyone who cannot purchase restricted equipment.

PERSONAL PROTECTION DRONE (T9)

Drone

Designed to be a general purpose assistant, performing repairs, basic medical treatment, and various useful tasks, the helper drone incorporates a PSA and advanced effectors, equivalent to a basic engineering and mechanical toolkit and a TL14/T8 medikit.

Hits: *5*

Speed: *Supersonic*

TI: *9*

Cost: *Cr42000*

Skills: *Gun Combat (energy) 3, Interface (sensors) 3, Mechanic 3, Medic (medicine) 3, Melee (natural) 3, Stealth 3, Steward 2*

Attacks: *Collision Attack (7D), Stunner (3D, Stun, Zero-G)*

Traits: *Armour (+13), Effectors, Flyer (supersonic), PSA (+ Densitometer + ZIP Field Scanner), Reinforced, Small (-4), Stunner (TL12/T5), Variform.*

Sentience: *Basic*

COMBAT DRONE (T8)

Drone

Created to assist Commonality soldiers and provide supporting fire as well as riot control, the combat drone is fitted with a dispersion field, PSA, stunner and null rifle (page 119).

Hits: *28*

Speed: *Very Fast*

TI: *8*

Cost: *Cr33000*

Skills: *Gun Combat (energy) 3, Interface (sensors) 3, Recon 3, Stealth 3*

Attacks: *Null rifle (5D, Auto 3, Zero-G), Stunner (3D, Stun, Zero-G)*

Traits: *Armour (+17[1]), Dispersion Field, Effectors, Flyer (very fast), Null Rifle, PSA, Small (-1), Stunner (TL12/T5).*

Sentience: *Basic*

[1] Drops to +12 if the dispersion field is turned off. The dispersion field also provides a DM-2 to attack rolls directed against the drone, and the Small (-1) trait provides a DM-1.

HELPER DRONE (T8)

Drone

Designed to be a general purpose assistant, performing repairs, basic medical treatment, and various useful tasks, the helper drone incorporates a PSA and advanced effectors, equivalent to a basic engineering and mechanical toolkit and a TL14/T8 medikit.

Hits: *13*

Speed: *Medium*

TI: *8*

Cost: *Cr22000*

Skills: *Engineer 3, Interface (sensors) 3, Mechanic 3, Medic (medicine) 3, Steward 2*

Attacks: *None*

Traits: *Armour (+2), Effectors, Electronics Toolkit, Flyer (medium), Medikit (TL14/T8), PSA (+ densitometer), Small (-2).*

Sentience: *Basic*

SENSOR DRONE (T8)

Drone

This drone is designed to map and explore areas without risk to sentient life. It contains all sensor packages except a neural activity sensor and a tachyon scanner (see Sensors, page 113) and has a basic sentience. It's typically a sphere 20cm in diameter or a disk 40cm in diameter. The T9 version of this drone also contains a neural activity sensor, and the T10 version of this drone contains all 10 sensor packages.

Hits: *5*

Speed: *Medium*

TI: *8*

Cost: *Cr60000*

Skills: *Interface (sensors) 3, Investigate 2, Navigation 2, Recon 3*

Attacks: *None.*

Traits: *Armour (+4) Flyer (medium), Small (-3); 8 sensor packages.*

Sentience: *Basic*

SPEAKER DRONE (T8)

Drone

Designed for use with known cultures, the speaker drone provides translation when communicating with individuals without Mindscape access, and also possesses basic diplomatic and cultural expertise to act as an advisor. It incorporates a PSA, and communication gear to reproduce any known language.

Hits: *13*

Speed: *Medium*

TI: *8*

Cost: *Cr15000*

Skills: *Diplomat 2, Interface (sensors) 3, Social Science (anthropology 3, sophontology 3); speaks and understands all known languages*

Attacks: *None*

Traits: *Armour (+2), Effectors, Flyer (medium), PSA, Small (-2).*

Sentience: *Basic*

STEALTH DRONE (T9)

Drone

This variform drone is designed for discrete infiltration. It incorporates a PSA, stealth field (page 115), and effectors. It's typically a sphere 8 cm in diameter.

Hits: *5*

Speed: *High*

TI: *9*

Cost: *Cr28000*

Skills: *Interface (sensors) 3, Investigate 2, Recon 3, Stealth 3*

Attacks: *None*

Traits: *Armour (+7), Effectors, Flyer (high), PSA (+ Gravity Wave Scanner, Mindscape Tracer, and ZIP Field Scanner), Small (-4), Stealth Field (T8), Variform.*

Sentience: *Basic*

Size and Additional Options

Small (-4) drones may incorporate a single stealth field, haze field, or dispersion field, or a single pistol. Small (-3) drones or larger may incorporate a stealth field and another field, and also any single pistol. Drones of at least size Small (-2) may incorporate a single rifle, as well as a densitometer or 2-space scanner, a stealth field, and any other field. Small (-1) drones may also incorporate a single heavy weapon. The cost of these options is equal to the cost of the specific item, except that the cost of fields for Small (-4) and Small (-3) drones is halved. Also, drone hits are equal to the maximum hits of a creature one size category higher (see "How Big a Beast?", ***Traveller Core Rulebook***, page 81). See Table 6-8: Drone Hits and Armour for details.

Drone Armour

All drones possess Armour (+2) at no cost, and may add additional armour up to a maximum of 24 + (size modifier x 3) points; see Table 6-8: Drone Hits and Armour. A Small (-1) drone could have up to 22 (25 – 3) points of armour. The cost of drone armour varies by drone size.

Drone Speed

Drones incorporate suspensors capable of movement at Medium speed. They may also be equipped with faster suspensors. Any size drone can be equipped to travel at any speed up to Supersonic. Drones which travel at speeds of High or faster in Standard or higher atmospheric pressures must be specially streamlined, or have the Variform option and adopt a streamlined configuration for travel at these speeds. See Table 6-9: Drone Speed.

Table 6-8: Drone Hits and Armour

Size	Hits	Maximum Armour	Armour Cost
Small (-4)	5	13	Cr100/pt
Small (-3)	7	16	Cr100/pt
Small (-2)	13	19	Cr200/pt
Small (-1)	28	22	Cr300/pt
Human-sized (+0)	35	25	Cr500/pt
Large (+1)	49	28	Cr1000/pt

Table 6-9: Drone Speed

Speed	Cost
High	Cr1000
Fast	Cr2000
Very Fast	Cr4000
Subsonic	Cr7000
Supersonic	Cr12000

Drone Collisions

Large (+1) drones or larger use the vehicle collision rules (***Traveller Core Rulebook***, page 134). Smaller drones subtract 1D from collision damage inflicted and sustained for every 2 size categories smaller (round up).

For example, a Small (-4) drone is 5 size categories smaller than Large (+1), and would therefore subtract 3D from collision damage, while a Human-sized (+0) drone is 1 size category smaller than Large (+1), and would subtract 1D from collision damage.

Reinforced: Reinforced drones have a sharp, pointed shape, specially designed to collide with targets at speeds of High or faster and cause an additional +1D damage. Reinforced drones must also have at least Armour (+12). They take no damage from collisions with anything less solid and immobile than a wall made of hard rock or solid metal, and even then reduce collision damage suffered by half (round down) before subtracting for armour. Reinforced variform drones retain their resistance to collision damage regardless of shape, but don't gain increased damage unless they adopt a sharp and pointed configuration. **Cost**: Cr3000.

EXTENSIONS

In ***Mindjammer***, if you have a Mindscape implant, the entity which is "you" extends beyond your physical body into virtual **extensions** which expand your abilities into different arenas. Fringe and Outer Worlders without Mindscape access are limited to developing the physical and mental abilities of their own bodies and brains, but Mindscape-linked characters from homeworlds of T8 or higher may acquire haloes, avatars, and other extensions.

Acquiring an Extension

You automatically have a **halo** extension by virtue of having a Mindscape implant (see page 103). You also gain one additional extension every time you gain a longevity package. Extensions may also be acquired as mustering out benefits, or purchased as equipment.

A Mindscape implant is a prerequisite for all extensions. Characters without Mindscape implants who acquire an extension via a successful longevity roll or benefit roll automatically gain a Mindscape implant **and 1 level of a halo skill**, unless they possess the Implant Reject flaw. Characters with the Implant Reject flaw may not acquire extensions of any sort.

AVATAR

You gain a synthetic (either mechanical or organic) body with physical attributes identical to your own; its appearance is up to you. If you're an installation such as a sentient starship and therefore haven't rolled for your STR and END characteristics, do so now; the scores represent the Strength and Endurance of your avatar. Avatars may use equipment and acquire physical augmentations just like any character; Commonality

avatars can be variform, allowing them to take the shape of any roughly human-sized creature or object.

You control your avatar via Mindscape, and use it almost as easily as your own body. When you use your avatar to take any **physical** action (using a physical skill, such as Athletics, Gun Combat, etc) your skill level is capped by your Interface (remote ops) skill.

For example, if you have the Gunnery 3 and Interface (remote ops) skills, and you want to use your avatar to fire the ship's guns of another ship, you do so at an effective Gunnery skill of level 2.

Note that you may not operate your body and an avatar at the same time. When operating your avatar, your own body must be sitting or lying down, and may not take actions.

Cost: Cr20000, or Cr50000 for a variform avatar. See the Variform Body augmentation (page 104) for more on the capabilities of a variform avatar.

EMULATOR

You gain a virtual (Mindscape) simulation of yourself. Emulators possess all of your skills and mental characteristics, but possess only basic sentience, and thus are not independent intelligent entities. Also, even if you possess a special ops / black chip, your emulator does not.

Emulators cannot act counter to your wishes, and are incapable of creative thought. However, they can take actions in the Mindscape while you act in the physical world, and can also control Mindscape-enabled vehicles and equipment for you. People often use emulators to handle routine Mindscape tasks, including communication, and have their emulator notify them if the communication is especially urgent or otherwise important. Some people have their emulator control their avatar, effectively allowing the person to appear to act in two physical locations at the same time. Commonality citizens often maintain emulators in star systems where they have lived, especially if they plan to return; the emulator handles communications for the character until he returns, or can otherwise exchange data. Each instance of this extension provides the character with a single emulator; it's up to you whether the emulator is in your local Mindscape, or (for example) if it's in another star system. **Cost**: Cr8000.

HALO

All characters with Mindscape implants automatically have a halo extension **and a single level of a halo skill**. Each time you take this extension, you gain 5 additional halo skill levels. Halo skill levels must be taken in one of the skills available to your current career. Halo skills can include the Jack of All Trades skill (which costs 3 skill points per level), but cannot include characteristic points. Reroll any characteristic points gained when rolling for halo skills.

These skills are only accessible when you have access to the Mindscape, which is why many characters with halo skills carry a personal Mindscape instance (PMI) when travelling to lower tech worlds. Halo skills add to ordinary skills normally, but even when combining a normal and a halo skill, the total skill level cannot exceed the character's **skill cap** (page 78). If you only possess a skill as a halo skill, you automatically gain that skill at level 0 even when not connected to the Mindscape. As long as you have access to a Mindscape, no roll is needed to access skills in your halo.

Note that adjusting to a new halo skill is a gradual process, requiring practice and review, handled using the training rules (page 52 of the ***Traveller Core Rulebook***), with the following differences:

- The **study period** for adjusting to a new halo skill is 5 days per skill level, or roughly 1/10 the time required to actually learn a new skill.
- Once the study period has been completed, the character must make a Routine (6+) EDU check to see if they have integrated the new halo skill.

Gaining a level 0 halo skill requires only one day of study, and does not require an EDU check.

Cost: Purchase as individual skill chips (page 104).

SENTINEL

Taking this extension provides you with a Mindscape sentinel. Sentinels are non-sentient AI routines existing in the Mindscape, created to protect virtualities, restricted content, or specific individuals and their halos. They can understand natural speech. You can give your sentinel any appearance you wish, from a horrifying monster to an invisible guardian; their appearance doesn't affect their function. Sentinels constantly guard their owner, or a particular virtuality, against Mindscape attacks, and transform Mindscape attacks and intrusion attempts against what they're guarding into opposed checks. Sentinels use mindburn against intruders or attackers.

Characters able to acquire restricted equipment may acquire special ops sentinels capable of **domination** (page 133) attacks. Normally sentinels may not attack targets which aren't directly attacking or attempting to hack either the sentinel or the subject the sentinel is guarding. However, sentinels may in turn be controlled by domination, in which case they may be ordered to attack anyone.

Cost: Cr8000 for standard sentinel, Cr20000 for special ops sentinel.

FIELDS

The other primary forms of personal protection available in the ***Mindjammer*** setting are **fields**. Fields are intangible constructs of waves and particles that provide both armour and protection from extremes of pressure. Fields can be turned on and off with the touch of a button or Mindscape command, and can protect people, vehicles, buildings, and

STANDARD SENTINEL

Mindscape Construct

Hits: *8*

TI: *8*

Cost: *Cr8000*

Skills: *Gun Combat (mindburn) 3, Investigate 2, Recon 3, Stealth 3*

Attacks: *Mindburn (see Table 3-105: Mindburn, page 75); Total TP: 10*

Sentience: *Non-sentient Mindscape routine.*

SPECIAL OPS SENTINEL (R)

Mindscape Construct

Hits: *10*

TI: *8*

Cost: *Cr20000*

Skills: *Gun Combat (mindburn) 3, Interface (remote ops) 3, Investigate 2, Recon 3, Stealth 3*

Attacks: *Domination, Mindburn (see Table 3-105: Mindburn, page 75); Total TP: 15*

Sentience: *Non-sentient Mindscape routine.*

[R] Unavailable to anyone who cannot purchase restricted equipment.

even entire cities. Fields are first developed at T7 and become easier to create and more powerful at higher TIs. All fields deflect attacks, providing a blanket DM-2 to the attack rolls of all attackers. In addition, fields have varying degrees of solidity, with some providing only minor armour protection, while others are as almost as durable as a thick metal wall. All fields can be made airtight or modulated to permit the passage of air and sound, while also protecting the user against damage. Fields can also be used to create temporary shelters or bridges, variform wings for compact flyers, temporary canopies for open vehicles, ray and particle shielding for spacecraft, and for many similar purposes.

ABSORPTION FIELD

This powerful field emits light and a low crackling hum, imposing a DM-4 on all Stealth tests by the wearer. It's also inflexible, imposing a DM-2 on checks requiring fine manipulation and Athletics (dexterity) tests.

ASSAULT FIELD

This advanced version of the absorption field is only as noticeable as a dispersion field and provides no barriers to manipulation, while also being more powerful than an absorption field.

Table 6-10: Fields

Field Type	TI	Protection[1]	Rad	Cost (Cr)	KG
Absorption Field	T8	+11	150	Cr15000	3
Assault Field [R]	T9	+14	300	Cr30000	3
Dispersion Field	T7	+5	80	Cr5000	1
Haze Field	T7	+2	50	Cr3000	1
Repulsor Field	T8	+8	100	Cr10000	2
Singularity Field / Blacklight Unit [R]	T10	+18	500	Cr50000	5

[1] This protection is in addition to the blanket DM-2 which fields provide against all attack rolls directed against the wearer.
[R]: This technology is unavailable to anyone who cannot purchase restricted equipment.

DISPERSION FIELD

Dispersion fields create a slight shimmer around the wearer, making them noticeble in normal light, but otherwise creating no light or sound that might inhibit stealth or annoy bystanders. They're the entry-level combat force field.

HAZE FIELD

Ubiquitous in the Commonality, haze fields are low-level force fields, subtle and generally unobtrusive. They shimmer slightly when struck, but are otherwise invisible unless you want them not to be.

REPULSOR FIELD

These relatively powerful fields blur and shimmer sufficiently to be easily noticeable in all but the dimmest light. They impose a DM-2 on tests to recognise the user, but do not penalise stealth attempts.

SINGULARITY FIELD

Also called a **blacklight unit**, this is the most powerful force field known to the Commonality. It uses planing theory to shunt damage into 2-space, shrouding the user in an angular black field from which no light escapes. The field emits no light or sound, but is exceptionally obvious, except in low light conditions, where it provides a DM+2 to Stealth checks. It absorbs light emitted by the wearer, but the wearer can continue to see, hear, and speak normally.

MEDICAL AND CARE SUPPLIES

All medical equipment and drugs from the ***Traveller Core Rulebook*** and the ***Central Supply Catalogue*** are available in the ***Mindjammer*** setting, with the exception of anagathics, which are replaced by rejuve and the Longevity augmentation, and psi drugs, which don't exist because overt psionics (with the exception of technological psionics, or technopsi) are unknown.

Assault Field

Singularity Field

Although cryoberths exist, they're rarely used because stasis fields are safer and more useful. In addition, the following medical equipment and treatments are also available.

New Medical Equipment and Treatments

RADIATION REPAIR (T8)

This advanced medical technique both removes accumulated radiation dosage and reverses the negative effects of exposure. Each treatment requires one day in a hospital or starship medical bay, but no roll is required; the treatment can't be performed in the field with a medikit. Each treatment removes 300 rads of accumulated radiation and also any END losses this radiation has caused. The treatment can be repeated every week.

STASIS FIELD (T7)

The stasis field is an early offshoot of gravity engine and space-time manipulation research. It's an impenetrable field within which the flow of time is effectively at a standstill. Once activated, it forms a reflective grey bubble around whatever it encloses. Anyone inside a stasis field may impact a planet at relativistic speed or pass through the heart of a star without harm—or indeed without noticing. Stasis fields are used to transport passengers on long interstellar journeys, as well as moving seriously ill or injured patients. Stasis field projectors are also installed around the passenger compartments of most T8+ vehicles, with sensors that automatically activate them in the event of collision or emergency. Emergency stasis fields may not usually be deactivated from within, although a timed deactivation may be set, and the field's external sensors may also be set to deactivate the field once conditions are safe. However, if these external sensors are destroyed (passing through the heart of a star usually does it...), then the field will remain active until it's manually deactivated from the outside. A portable stasis field projector suitable for transporting a single severely injured patient has a mass of 3kg and a cost of Cr3000.

Z-RADIATION TREATMENT (T9)

Although z-radiation (page 153) is poorly understood, the damage and mutation it causes are all too evident. Commonality-developed treatments require a T9 medical facility and makepoint workshop (page 166), and two days fabricating the necessary highly specialised medical equipment if it's not already present. Treatment requires 1D3+1 days, and removes 200 rads of accumulated z-radiation and any mutations or END loss caused by that amount of exposure. It may be repeated once every week.

SENSOR EQUIPMENT

The sensors listed in the ***Traveller Core Rulebook*** (page 111) are available in the ***Mindjammer*** setting, as are the vision and detection electronics in the ***Central Supply Catalogue*** (pages 59-61), except for psi-finder binoculars. Note that both neural activity sensors and quantum substrate scanners (below) can detect a life form's Evolution Index (page 314) from its pseudo-neural activity, presuming that life form has been detected and has something analogous to neural activity to detect.

Sensor Packages

In ***Mindjammer***, any sensor may include one or more sensor packages, described below. Bioscanners (T8), densitometers (T8), and neural activity sensors (T9) from the ***Traveller Core Rulebook*** are available for Cr20000, Cr10000, and Cr10000 respectively. These sensors can be made exceedingly tiny. Chem-sniffers are tiny T8 sensors which otherwise function as the chemi-view googles from the ***Central Supply Catalogue*** (page 59). The following sensor packages are also available.

New Sensor Packages

AUDIO SCANNER (T6)

This sensor contains a directional microphone that can allow the wearer to hear conversations at 100m and whispers at 30m, as well as the ability to perceive infrasound and ultrasound. **Cost**: Cr500.

EM SCANNER (T6)

This scanner can perceive radio, microwave, infrared, visible, ultraviolet, x-ray, and gamma ray EM radiation and can

magnify objects both close up and at a distance by a factor of up to 200x. It includes the functions of the EM probe, Geiger counter, and PRIS binoculars (***Traveller Core Rulebook***, page 111), and can also detect the monitor band of any Mindscape implant without a monitor band cloak (page 105). The difficulty of this check is Easy (4+) at short range, and increases by one difficulty level (2+) for every additional range band of distance. **Cost**: Cr1000.

GRAVITY WAVE SCANNER (T7)

This device detects unusual mass concentrations inside planets, asteroids, and other celestial bodies as well as the emissions of gravity engines and suspensors. Handheld gravity wave scanners detect suspensors at a range of 10km, and gravity engines at a range of 100km. Gravity wave scanners fitted on starships and large exploration or military vehicles can detect such engines at a range of 50,000km, and also create gravitational maps of planets and other celestial bodies at ranges of 300,000km. **Cost**: Cr1000.

MINDSCAPE TRACER (T7)

A standalone device or an extension to a hand scanner, PSA (page 114), or starship sensor suite (page 147), a Mindscape tracer lets you locate and track an individual by his unique Mindscape ID. It only functions if the scanner and the target are both using the same Mindscape, but otherwise has unlimited range. **Cost**: Cr1000.

QUANTUM SUBSTRATE SCANNER (T9)

These sensors routinely detect fluctuations in the space-time fabric, including the more efficient detection of vessels using suspensors as well as gravity and planing engines. They also analyse time dilation, and some of the epiphenomena associated with consciousness and the persistence of identity. Quantum substrate scanners effectively duplicate the functions of gravity wave scanners, and eventually replace them. Handheld quantum substrate scanners detect suspensors at a range of 25km, and gravity engines at a range of 250km. In addition, they can detect and differentiate between natural or synthetic (eidolon and basic) sentiences at a range of 2 km. **Cost**: Cr5000.

TACHYON SCANNER (T10)

This tiny device can detect if a starship enters or emerges from 2-space or 3-space anywhere within 200 AU of the user. The signals travel at lightspeed between the entry / emergence point and the scanner's location, so substantial time delay may be involved. The scanner can distinguish between starships entering or leaving n-space, but cannot between 2-space planing engines and 3-space far gate fields. It provides the approximate distance and direction for the ship's emergence as well as its approximate size and can easily distinguish two ships entering or leaving n-space at the same time if they emerge into or leave n-space least 1 AU apart. This device cannot detect ships in 2-space or 3-space. **Cost**: Cr1000.

TRANSBARYONIC SENSORS (T9)

This sensor allows the user to detect and analyse phenomena relating to baryonic dark matter, hot and cold non-baryonic matter, dark matter stars, electroweak stars, and the interstellar medium, permitting detailed estimates of mass and trajectory as well as detecting naturally occurring 3-space rifts. These sensors can also easily detect fields (such as haze fields). Handheld transbaryonic sensors can detect personal fields at a range of 5 km and vehicle or starship fields at 50 km, and can detect various natural phenomena at 50 km. **Cost**: Cr10000.

ZIP FIELD SCANNER (T8)

This sensor can detect the subtle vacuum energy fluctuations given off by ZIP cells and ZIP plants, allowing the user to determine their approximate distance and direction. Handheld sensors have a range of approximately half a kilometre. ZIP field sensors fitted on starships and large exploration or military vehicles have a range of 10,000 km in regions with no more than 20 active ZIP cells or ZIP plants, and 500km on densely inhabit planets where ZIP cells are common. **Cost**: Cr2000.

Sensors

HAND SCANNER (T6+)

With a volume of 0.2L or less, these devices can contain up to 4 sensor packages and can contain every sensor type. Add two additional sensor packages for each additional Tech Index, so at T10, hand scanners can contain all listed sensor packages. **Cost**: Cr500 + the cost of the sensors.

PERSONAL SENSOR ARRAY (T8+)

Commonly called a PSA, these devices combine a variety of sensors in a small package. All PSAs contain an audio scanner and an EM scanner. They can also be fitted with two additional sensor packages and can contain every sensor type. Lower tech PSAs outside of the Commonality are usually at least the size of a torso body harness or webbing, and possess a holographic screen and speakers. Commonality-standard PSAs are an array of multiple thin flexible disks no more than 2 cm in diameter that are generally used in combination with a Mindscape implant (there's usually a discretionary interface available for operating in "stealth mode" with a monitor band cloak). T9+ PSAs can be fitted with six additional sensor packages, and at T10 they can be fitted with ten additional sensor packages (permitting them to contain all 12 sensor packages). **Cost**: Cr2000 + the cost of any additional sensors.

Hand Scanner

Table 6-11: Survival Gear

Item	TI	KG	Cost
Effectors	T9	-	Cr10000
Grav Belt[1]	T8	2	Cr50000
Personal Mindscape Instance (PMI)	T8	-	Cr1000
Portable Makepoint	T9	3	Cr7000
Stealth Field	T6-T9	1	Cr20000
Tent	T8	8	Cr5000
	T9	10	Cr15000
ZIP Cell	T9	10	Cr1000

[1] *From the* **Traveller Core Rulebook.**

SURVIVAL GEAR AND SUPPLIES

All survival equipment and supplies from the ***Traveller Core Rulebook*** (pages 112-115) are available in the ***Mindjammer*** setting, with the following exceptions and modifications. Electronics toolkits are instead called **interface toolkits**, and at T8+, tents are substantially different (see below). In addition, the cost of grav belts is reduced to Cr50,000. Survival equipment of T7 (TL 11) and below from the ***Central Supply Catalogue*** (pages 39-58) are available in appropriate areas. Fusion Stills (page 52) are available, but are T8 and powered by ZIP cells. Infinite Rope (page 54) is available at T8. The following higher tech housing options from page 58 are available: Chameleon Fibers (T8), Holosimulacrum (T9), and Self Sealing (T7).

Tools (pages 78-80) and home comforts (pages 94-97) from the ***Central Supply Catalogue*** are available. The T8 (TL13) Tool Laser (page 79) is not only as small as a pen, it's also powered by ZIP cell and never runs out of power. The Bed (anti-grav), and the Float Table (page 95) are both T8. The Laser Ring (page 64) is T8 and powered by ZIP cell, and so also never runs out of power. All other equipment has the appropriate TI. Most T8+ devices contain at least basic sentiences. The equipment in Table 6-11: Survival Gear is available to all characters at the appropriate TI.

EFFECTORS (T9)

These small tractor fields allow micro-level manipulation, including tasks like picking locks or even performing surgery. They have a range of 6m and can lift and move objects up to 10kg in mass. When performing tasks, characters use their full DEX and skill, but their effective STR is only 3. For especially delicate manipulations, like repairing tiny devices or picking complex mechanical locks, the effector's precision provides a Boon. Effectors can throw small objects, throw punches (with STR 3), and create daggers out of their energy field that can be used to attack or to cut anything an exceptionally sharp metal knife can. Effectors can be implanted as an augmentation, but are most often palm-sized handheld devices, or sometimes worn as bracelets. T10 effectors can be as small as a ring.

PERSONAL MINDSCAPE INSTANCE (PMI) (T6)

A small device containing a drastically reduced Mindscape instance providing access to limited Mindscape functions in locations without full Mindscape access. This device has a range of 10m and can be set to either only broadcast to the user, or to any Mindscape implants within range. T8+ versions enable users to also access their exomemory, halo, and other Mindscape-powered enhancements. PMIs can be suppressed by a monitor band cloak. They're available as hand-sized devices worn on a wrist or as a pendant or kept in a pocket, and also as implants.

PORTABLE MAKEPOINT (T9)

A box 15cm x 15cm x 20cm with an integral ZIP cell to create matter out of energy. Its small size and simple design mean its capabilities are more limited than standard makepoints: it can create food, water and air sufficient to sustain up to half a dozen human-sized organic beings indefinitely. It can create spare parts for most items; simple objects like clothing, rope, jewellery; common medicines; and even unpowered objects with simple moving parts. It can't create items with powered components.

STEALTH FIELD (T6-T9)

This haze field variant bends light and other electromagnetic waves and dampens sound to cause objects or people within its area of effect to appear invisible or part of the scenery. At T6, stealth fields affect visible and IR light as well as sound; at T8 they affect the entire electromagnetic spectrum; and at T9 they affect gravity wave and ZIP field scanners. As long as the user remains stationary or moves no faster than 3m/turn, a stealth field raises the difficulty of all Recon or other checks

to detect anyone or anything affected by one to Formidable (14+). If the difficulty is already Very Difficult (12+) or Formidable (14+), then the stealth field also causes a Bane on the check. Reduce the difficulty of the check to Very Difficult (12+) if the individual or object affected by the stealth field is moving faster than 3m/turn.

Personal stealth fields usually take the form of belts, wrist units, or light and slim handheld devices. Larger stealth field units can be used to disguise vehicles or even dwellings. At T10, personal stealth fields can be made as small as a finger ring.

TENT (T8-T9)

Based on simple variform technology, a T8 tent is a dome four metres across and two-and-a-half metres high, reinforced by field technology. It can be set to create a range of field-reinforced furniture like tables and beds. It incorporates feeder tanks and life support to process air and water, housing three humans in comfort and up to five people with some discomfort for long periods. It collapses into an 8kg bundle with dimensions 20cm x 15cm x 30cm, which can be worn as a small backpack. At T9, it includes gravity control adjustable between zero-G and 3G inside the tent and in up to a 2-metre area around it. The T9 tent replaces the haze field with a dispersion field, and now allows occupants to survive pressures of up 300 atmospheres. It also incorporates a makepoint to create air, water, and food for up to half a dozen people indefinitely.

ZIP CELL (T8)

At all Tech Indices, ZIP cells vary in size depending on factors such as required power throughput, failsafes, insulation, backups, and so on. This item is a first generation T8 "standard" zero-point energy cell, typically used for powering personal equipment such as weapons and handheld or worn devices. Smaller cells for less powerful items are certainly available, as are larger ones for much larger devices, up to and including the ZIP plants that power starships, starports, and even entire cities. ZIP cells function for up to a year of heavy use or up to a decade of light to moderate use before requiring overhaul.

At T9, standard cells tend to be the size of an ID card or even a small coin; at T10, standard-power microcells become available, when their minimum size is more a factor of practical manipulability than power output.

UNUSUAL EQUIPMENT

The following items are specific to individual worlds, such as the Commonality worlds of Abraxas (page 19) and Unanimity (page 20). The galaxy—and the Commonality—is a vast place, and this type of variation and specialisation is common.

ABRAXAS ANIMAL COMPANION (T8)

Use the rules in **Chapter 15: Alien Life** to create useful custom-designed animals. Animal companions have **t-congruent** biologies (page 299), and most are between Small (-4) and Large (+1) size. They may have up to 4 Traits (page 34) or Animal Traits (page 309), chosen by their owner, and understand simple speech, and automatically connect to the Abraxas bio-Mindscape implant by touch. Animal companions are roughly as intelligent as a basic sentience, smart chimpanzee, or large parrot, but none are fully sentient, which would cross the line from animal companion to xenomorph. **Cost**: Cr1000 + Cr 2500/Trait.

ABRAXAS BIO P-SUIT (T9)

This item of living technology is identical to a T9 variform p-suit (page 97), except that it lacks a haze field. It provides Armour (+8) and 30 rads of radiation protection, and has a mass of 3kg. **Cost**: Cr27000.

ABRAXAS BIO-MINDSCAPE IMPLANT (T8)

This unusual living augmentation confers all of the abilities of a conventional Mindscape implant, except that it's designed to function with Abraxas's bio-Mindscape, a living network of engineered plants and fungi, connected via rootlets and fungal threads. Users must make physical contact with a plant or the soil to connect to this Mindscape, although connectivity to their **bio-halo**, a halo-analogue, containing their own exomemories and halo skills, persists even when not in physical contact. The implant can't connect to the conventional Mindscape, but does incorporate a nanocell variant allowing users to directly connect to one another and to animal companions (see above) by touch. The inhabitants of Abraxas created this augmentation to deal with their distrust of both non-biological technology and the constant mental connection that Chembu who commune with the Planetary Intelligence experience. **Cost**: Cr4000.

ABRAXAS INTERFACE NECKLACE (T8)

This device allows travellers from Abraxas to access the standard Commonality Mindscape via their bio-Mindscape implant. Travellers from Abraxas who choose not to wear an interface necklace still possess their bio-halo containing their exomemories and halo skills, but may not connect to the Mindscape, nor access other exomemories or new halo skills on any other world with a bio-Mindscape, except by touching someone else who has a bio-Mindscape implant. **Cost**: Cr2000.

UNANIMITY LIFE SUPPORT POD (T9)

This device incorporates ZIP cells and a makepoint to provide life support for a single human or hominid indefinitely. The ZIP cell must be overhauled (often replaced) every 20 years, but the device is otherwise self-sufficient. It provides Armour (+30) and 1000 rads of radiation protection for its occupant,

and incorporates a stasis field for emergencies or long journeys and a repulsor field for defence, as well as storage for one avatar and several drones.
Cost: Cr25000.

WEAPONS

Mindjammer has many unique weapons, but also uses many of the same weapons described in the ***Traveller Core Rulebook*** and the ***Central Supply Catalogue***.

Melee Weapons

All melee weapons in the ***Traveller Core Rulebook*** (pages 116-117) are available in ***Mindjammer***. Bludgeoning weapons, blade weapons, close and personal weapons, archaic weapons, and shields of TL11 (T7) and lower from the ***Central Supply Catalogue*** (pages 98-107) are also available, as are the Gravitic Shield (T8, page 107) and the Shock Whip (T7, page 135). High-tech melee weapons unique to the ***Mindjammer*** setting are given in Table 6-13: New Melee Weapons.

New Melee Weapons

ENERGY KNIFE (T8)

This weapon consists of dense plasma contained within a suspensor field. In addition to inflicting serious wounds, it can also parry missile attacks by slug throwers or blasters. However, parrying such attacks requires an inhuman degree of speed and precision, to accomplish which you must connect to your weapon via Mindscape or nanocells and use your enhanced perceptions to cause the plasma blade to move at blinding speed. Used this way, the weapon gains a DM+2 for parrying close combat attacks. Using an energy knife to parry a physical weapon, like a club or a fist, damages the weapon being parried.

ENERGY MACE (T8)

This larger version of the energy knife functions identically, except that it does more damage.

ENERGY SWORD (T8)

This larger version of the energy knife functions identically, except that it does more damage and requires more room to wield.

The Sanctity-of-Life Principle

The hyper-advanced technology of the Commonality reaches terrifying levels in the field of conflict. The ability of a weapons system to completely, totally, and irreversibly annihilate a target is not a matter of chance, but of choice. It's been this way for thousands of years. If the Commonality wants an individual dead, there's very little that individual can do about it; in fact, it's very unlikely he'll ever see his annihilation coming.

In a civilisation where irresistible annihilating force can be brought to bear almost casually, factors other than the destructive power of weaponry hold sway. For millennia, the Commonality has treated violence as a tool in its arsenal; usually one to be resorted to when a situation has already spiralled down into failure and imminent disaster, but equally one to be employed with surgical precision.

When people may live centuries—perhaps even millennia—if accident does not destroy them, life is precious. Consequently, the Commonality only sets out to kill an individual when it really, really has to. When approving the use of violence to resolve a situation, any Commonality controller has three levels of measures which he or she can deploy:

1. ***Dissuasive Measures:*** *In most cases, non-lethal but highly effective strikes are sufficient to resolve a situation. Any opposing personnel or personnel obstacles are neutralised without injury and removed from the immediate field of action. Dissuasive weaponry includes stun guns, knockout gases, confusion fields, etc.*
2. ***Equivocal Measures:*** *This is the most common set of measures employed in time of war. The goal of the conflict is not to destroy opposing personnel, but to achieve other strategic or military targets to which opposing personnel are merely hindrances. When using equivocal measures, the Commonality doesn't really care whether opposing personnel are injured or even killed; it would rather they were not, but in using strikes to rapidly achieve strategic goals, collateral damage is often inevitable. Equivocal measures weaponry includes conventional arms such as null weapons, kino weapons, blasters, and so on.*
3. ***Unequivocal Measures:*** *Sometimes the goal of a strike is to very specifically terminate one or more individuals. In such cases, the Commonality employs overwhelming force to that end, with the one proviso that collateral damage is to be avoided. Usually the target has no chance to survive an encounter with unequivocal measures. Unequivocal measures weaponry includes disassemblers, disintegrators, micro-nukes, field separation units, haze folds, and more. Often annihilator synthetics and mechanical assassins are the specialists used in unequivocal measures actions.*

New Weapon Traits

Immobilise: *The weapon uses field technology to project a rigid, short-term field around a target. The target may make an Acrobatics (STR) check with a difficulty equal to the weapon's rolled damage: success allows him to act for one round, but with a DM-2 to all checks using STR or DEX and only half movement (round down); failure means he may take no physical action that round. The target may roll once per combat round, but an Exceptional Failure means he may not make a check to act physically until the effect ends, while an Exceptional Success means that target has broken free from the field and can act normally and need not make additional checks. The immobilisation effect continues for a number of rounds equal to the Effect generated by the attack roll. Immobilise attacks ignore armour.*

Jam: *The weapon projects electromagnetic interference and meson pulses to temporarily interfere with circuitry, inhibiting Mindscape use and the cognition and coordination of Mindscape-connected targets. It only affects Mindscape-connected targets, and results depend upon the attack roll's Effect (degree of success): see Table 6-12: Jam Effects. Jam attacks ignore armour.*

Note that the penalties to DEX, INT, and EDU checks caused by weapons with the Jam trait are never cumulative. Someone struck by the weapon repeatedly suffers from the worst result rolled, ignoring less severe effects until the worst effects end.

Table 6-12: Jam Effects

Result	Effect
Exceptional and Average Failure	No Effect
Minimal Failure	DM-4 on all checks to use the Mindscape for 1D rounds.
Minimal Success	No ability to use the Mindscape at a range greater than 5m*, and DM-2 to all DEX, INT, and EDU checks due to mental interference for 2D+3 rounds.
Average Success	No ability to use the Mindscape, and DM-4 to all DEX, INT, and EDU checks due to mental interference for 2D+3 minutes.
Exceptional Success	No ability to use the Mindscape and DM-6 to all DEX, INT, and EDU checks due to mental interference for 2D+3 minutes.

** The target can access a worn or implanted PMI and contact Mindscape-enabled devices and individuals with Mindscape implants within 5m, but can perform no other Mindscape actions.*

MONOFIL (T9)

A monofil is a lethal invisible blade comprising a single monofilament (a wire one molecule thick) held in place by a suspensor field. It can cut through almost any substance without resistance.

NEURAL WHIP (T7)

Created by the Venu, this weapon does only moderate damage, but also inflicts intense pain. Each successful hit that causes any damage also inflicts a DM-2 on all checks made by the target. The pain and accompanying penalty disappear after 1D minutes. The Venu often use this weapon as a method of torture.

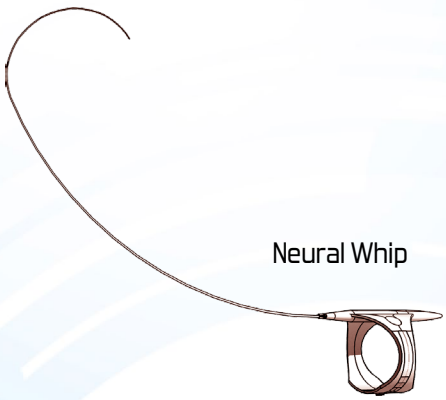
VIBRO AXE (T6)

This early powered melee weapon has a rapidly vibrating blade inflicting severe wounds. The vibration produces a noticeable whine that largely prevents the wielder from using stealth.

VIBRO KNIFE (T6)

This weapon is identical to a vibro axe, but is shaped like a knife.

Monofil



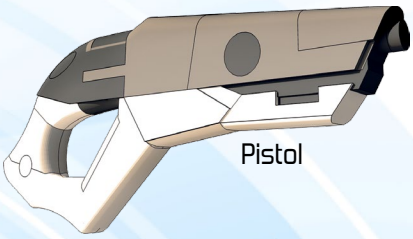
Neural Whip

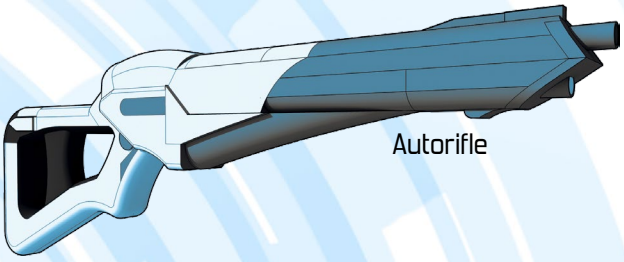
Table 6-13: New Melee Weapons							
Weapon	**TI**	**Range**	**Damage**	**KG**	**Cost**	**Magazine**	**Traits**
Energy Knife [R]	T8	Melee	4D	0.5	Cr500	ZIP cell	AP3, Parry
Energy Mace [R]	T8	Melee	5D	1	Cr700	ZIP cell	AP3, Parry
Energy Sword [R]	T8	Melee	6D	2	Cr1000	ZIP cell	AP3, Parry
Monofil [R]	T9	Melee	6D	0.5	Cr2500	ZIP cell	AP10
Neural Whip [R]	T7	Melee	1D+2+ special	1	Cr2000	100	Pain
Vibro Axe	T6	Melee	4D	3	Cr1000	100	Noisy
Vibro Knife	T6	Melee	3D	1	Cr500	200	Noisy
Vibro Sword	T6	Melee	5D	6	Cr1500	100	Bulky, Noisy

[R]: Unavailable to anyone who can't purchase restricted equipment.
ZIP cell: Weapons with a listing of ZIP cell under magazine never run out of power.

VIBRO SWORD (T6)
This weapon is identical to a vibro axe, but is shaped like a sword.

Slug Throwers and Energy Weapons
The slug throwers from the ***Traveller Core Rulebook*** (pages 118-120) are available in the ***Mindjammer*** setting. The TL9 (T6) laser pistol, laser carbine, and laser rifle are also available, as is the T12 (T5) stunner, but other energy weapons are significantly different; also, laser weapons are usually called **null weapons** in the ***Mindjammer*** setting. All slug pistols, and slug rifles of TL14 (T8) or below, from the ***Central Supply Catalogue*** (pages 108-115) are available; but most energy weapons from that book are not. The only exceptions being the Hand Flamer (T7, page 115) and the Cryo Rifle (T8, page 117). Ammunition and weapon options of TL11 (T7) or lower from the ***Central Supply Catalogue*** (pages 138-145) are available, as is the Monofilament Bolo (T9, page 135). All T8+ energy weapons are ZIP cell-powered, and never run out of power. In addition, T7+ missile weapons should be treated as automatically having the Scope trait as they incorporate sensors as well as a basic sentience or non-sentient AI.


Pistol


Autorifle

New Weapon Option

REGENERATING AMMUNITION MAKEPOINT (T9)
At T9, characters may purchase a specialised miniature makepoint for any slugthrower, enabling it to create its own ammunition sufficiently rapidly that the weapon never runs out. **Cost**: Cr2000.

New Energy Weapons

BLASTER PISTOLS AND RIFLES (T8)
Blasters fire bolts of searing hot plasma and have recoil similar to a slug thrower.

DISINTEGRATOR RIFLE (T10)
This advanced and exceptionally deadly weapon fires a torsion beam that rips the target's molecules apart.

JAMMER RIFLE (T9)
This large version of a jammer pistol can deprive several of targets of Mindscape access in one shot.

MESON RIFLE (T9)
Evolved from blaster technology, this weapon fires a beam of charged particles that deliver deadly attacks.

NULL PISTOLS AND RIFLES (T7)
These are laser weapons that fire continuous beams of coherent light of various frequencies. They do not require separate power packs, and T8 versions of these weapons are powered by ZIP cells and never run out of power.

Table 6-14: New Energy Weapons

Weapon	TI	Range	Damage	KG	Cost	Magazine	Traits
Blaster Pistol	T8	20m	4D	2	Cr2000	ZIP cell	
Blaster Rifle [R]	T8	300m	6D	6	Cr4000	ZIP cell	Auto 2
Disintegrator Rifle [R]	T10	70m	1DD	8	Cr20000	ZIP cell	AP10, Zero-G
Jammer Pistol	T9	50m	Special	1	Cr1500	ZIP cell	Jam, Zero-G
Jammer Rifle	T9	200m	Special	6	Cr9000	ZIP cell	Blast 5, Jam, Zero-G
Meson Rifle [R]	T9	200m	1DD	8	Cr30000	ZIP cell	
Null Pistol	T7	100m	3D	1	Cr2000	ZIP cell	Zero-G
Null Rifle	T7	600m	5D	4	Cr5000	ZIP cell	Auto 3, Zero-G
Paralysis Wand	T9	30m	4D	0.5	Cr3000	ZIP cell	Immobilise, Zero-G
Stun Rifle	T5	100m	5D	5	Cr5000	ZIP cell	AP5, Auto 3, Stun, Zero-G
Venu Protein Disruptor Pistol [R]	T7	20m	3D+2	2	Cr3000	100	AP3, Zero-G
Venu Protein Disruptor Rifle [R]	T7	200m	5D+3	6	Cr7000	100	AP5, Zero-G

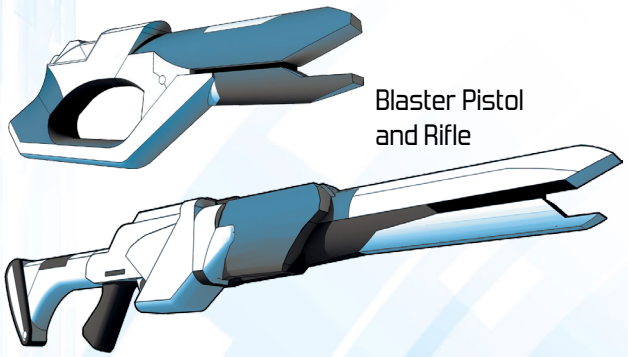
[R]: Unavailable to anyone who cannot purchase restricted equipment.
ZIP cell: Weapons with a listing of ZIP cell under magazine never run out of power.

PARALYSIS WAND (T9)

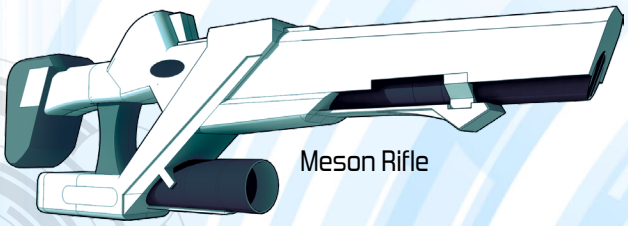
This weapon temporarily immobilises targets within a powerful field. It affects any animal or drone of size Large (+2) or smaller. A hit completely immobilises Small (-2) drones or smaller; when used on drones between Small (-1) and Large (+2), a successful attack reduces the drone's Speed Band Number (***Traveller Core Rulebook***, page 130) by 1, +1 for each Effect, to a minimum of 0 (immobile).

STUN RIFLE (T5)

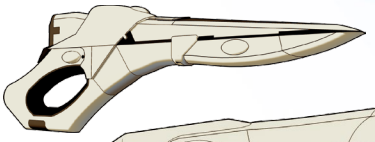
This powerful stunner allows the user to stun armoured targets and attack multiple targets.



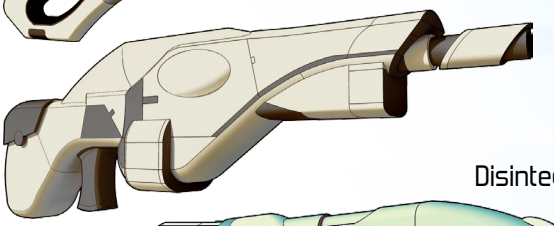
Blaster Pistol and Rifle



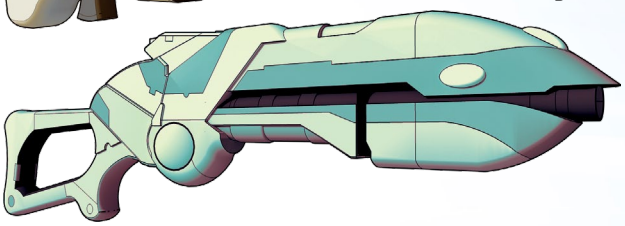
Meson Rifle



Null Pistol and Rifle



Disintegrator

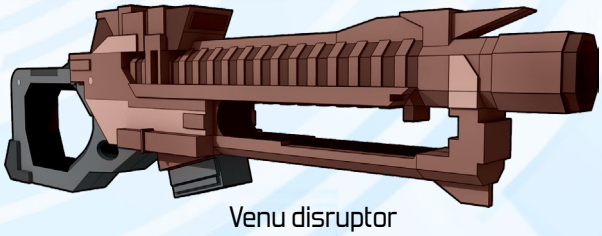


VENU PROTEIN DISRUPTOR PISTOL AND RIFLE (T7)

These weapons fire torsion beams and were reverse-engineered by Venu technopriests from stolen Commonality weaponry. They're powerful weapons which also emit dangerous z-radiation, exposing everyone within 5m to 2D rads/hour. See **Z-radiation** (page 153) for more.

Grenades and Heavy Weapons

The grenades and explosives from the ***Traveller Core Rulebook*** (pages 123-127) are available in the ***Mindjammer*** setting, as are those from the ***Central Supply Catalogue*** (pages 119-121 and 136-137). The grenade launcher, machine gun, RAM grenade launcher, and rocket launchers in the ***Traveller Core Rulebook*** (page 125) are also available. With the exception of all plasma and fusion weapons, the heavy weapons and artillery of T8 (TL12) and below from the ***Cen-***



Venu disruptor

tral Supply Catalogue (page 123-128). Other heavy weapons and artillery are replaced by those below.

New Grenades and Heavy Weapons

BURNER (T8)

A burner is a powerful blaster that hurls bolts of devastatingly hot plasma.

FUSION LANCE (T8)

A fusion lance is a plasma torch, which fires a continuous stream of super-heated plasma at targets.

HEAVY STUNNER (T8)

Designed for riot control and non-lethal warfare, this imposing weapon stuns large number of targets at once. Unlike smaller stunners, its renders the target incapacitated and unable to perform any actions for a number of minutes (rounds x 10) equal to the amount by which the damage exceeds his END.

HEAVY PARALYSER (T9)

Designed for riot control and non-lethal warfare, this weapon can paralyse large portions of a crowd in a few shots. It can be used to affect any animal or drone of Large (+4) size or smaller. A hit completely immobilises drones of Large (+1) size or smaller. When used on drones between Large (+2) and Large (+4) size, or against vehicles of 2 tons or smaller, a successful attack reduces the target's Speed Band Number (***Traveller Core Rulebook***, page 130) by 1, +1 for each Effect, to a minimum of 0 (immobile). Unlike smaller paralysis weapons, the heavy paralyser immobilises targets for a number of minutes (rounds x 10) equal to the Effect generated by the attack roll. This weapon has no effect on spacecraft powered by gravity engines.

PLASMA LAUNCHER (T8)

Designed for use with either powered armour or by a crew of two, the plasma launcher is the largest blaster weapon in common use.

TANGLE GRENADE (T7)

Everything within the grenade's blast score is covered in strong sticky fibres. When the grenade hits, roll 2D+6 for each target: this number is the difficulty of the STR check the target must roll to break free of these fibres. The fibres disintegrate on their own in 1D3 x 10 minutes, and can be removed in 1D x 10 seconds using a special solvent. Both the grenade launcher and the RAM grenade launcher can fire tangle grenades.

VENU HEAVY DISRUPTOR (T7)

This large torsion cannon was reverse-engineered by Venu technopriests from stolen Commonality weaponry. It emits dangerous z-radiation, exposing everyone within 6m to 2D rads every 20 minutes.

VEHICLES

"A mining lifter charged through from the rear, its human pilot clearly visible inside the roll-cage. With startling agility, it leapt from the rubble heap of a fallen building and hurled itself into a combat walker. Its vice-like manipulators grappled with the walker's autocannon and central servo-housing, and the bright red of a cutting laser began to sear into its transzanthrian alloy hull."

The rules for vehicles and vehicle combat in the ***Traveller Core Rulebook*** (pages 130-137) are used in ***Mindjammer*** with only minor changes. Unless stated otherwise, all rules for vehicles and vehicle combat apply.

Table 6-15: New Grenades and Heavy Weapons

Weapon	TI	Range	Damage	KG	Cost	Magazine	Traits
Burner [R]	T8	300m	1DD	10	Cr30000	ZIP cell	
Fusion Lance [R]	T8	40m	1DD	12	Cr20000	ZIP cell	AP7, Bulky
Heavy Stunner	T8	300m	6D	10	Cr20000	ZIP cell	AP10, Blast 5, Stun, Zero-G
Heavy Paralyser	T9	300m	6D	12	Cr30000	ZIP cell	Auto 2, Blast 5, Immobilise, Zero-G
Plasma Launcher [R]	T8	300m	2DD	15	Cr60000	ZIP cell	Very Bulky
Tangle Grenade	T7	20m	-	0.5	Cr30	Single grenade	Blast 2, Entangle
Venu Heavy Disruptor [R]	T7	300m	1DD	20	CR45000	Venu ZIP cell	AP5, Bulky, Zero-G

[R]: Unavailable to anyone who cannot purchase restricted equipment.
ZIP cell: Weapons with a listing of ZIP cell or Venu ZIP cell under magazine never run out of power.

Critical Hits

The biggest change is to the list of vehicle equipment and weapons. In addition, T7 vehicles are powered by compact fusion reactors, and have small fuel tanks built into the fusion reactor that need to be refueled only once a year, while T8+ vehicles are powered by ZIP plants, and so neither type of vehicle has a separate fuel tank. As a result, reroll all fuel critical hits, unless the vehicle has a field, like a haze field or a repulsor shield, in which case treat fuel critical hits as field critical hits, using Table 6-16: Revised Critical Hits. Use the same table for a roll of 11-12 (systems), since vehicles in ***Mindjammer*** are not equipped with separate computers, although they usually contain a housing for a sentience, usually a basic.

Collisions

If one of the vehicles in a collision activates a stasis field before the collision, then everyone inside the vehicle is unharmed, and only the other vehicle's occupants may take damage. If both vehicles in a collision have activated stasis fields, then neither vehicle's occupants are harmed. Otherwise, the rules for collisions are unchanged from those in the ***Traveller Core Rulebook***.

Vehicle Equipment and Weapons

The vehicle equipment on page 138 of the ***Traveller Core Rulebook*** is available, but the Communications (Advanced), Navigation (Improved), Navigation (Advanced), Sensors (Improved) and Sensors (Advanced) have the prices and tonnages listed in Table 6-18: Vehicle Equipment. The Fusion Gun and Laser Cannon are modified and renamed in ***Mindjammer***, and the additional weapons listed in Table 6-19: Vehicles Weapons are also available.

COMMUNICATIONS (ADVANCED) (T8)

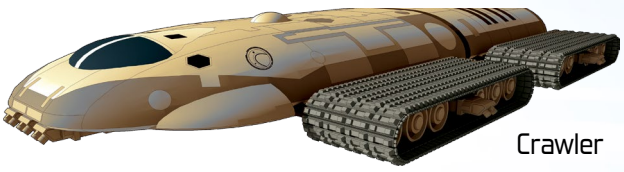
At T8 and higher vehicle comms have a range of 10,000 km, and include tightbeams (usually masers) with a range of 500 km. The equipment takes up a negligible amount of space.

DISRUPTOR CANNON (T7)

The Venu disruptor cannon was reverse-engineered from Commonality designs. It emits dangerous z-radiation, exposing everyone within 6m to 2D rads every 20 minutes.

DISRUPTOR SHIELD (T7)

Used only by the Venu and their allies, this field is identical to a T8 haze field (page 112), except that it emits dangerous z-radiation, exposing everyone within 6m of the vehicle, including the occupants, to 2D rads / hour. The tonnage and



Crawler

Table 6-17: Revised Critical Hit Locations

Roll 2D	Location
2-3	Field
4	Powerplant
5	Weapon
6	Armour
7	Hull
8	Cargo
9	Occupants
10	Drive System
11-12	Systems

Table 6-16: Revised Critical Hits

Location	Severity 1	Severity 2	Severity 3	Severity 4	Severity 5	Severity 6
(2-3) Fields	Field armour reduced by -1 until repaired.	Field armour reduced by -1D until repaired.	Field temporarily fails for 1D rounds.	Field fails until repaired.	Fields fails until repaired; Hull Severity increased by +1.	Field generator explodes; Hull Severity increased by +1.
(11-12) Systems	Roll 1D: 1-4 = all comms and sensor checks suffer DM-2; 5-6 = vehicle sentience suffers 1D3 damage.	Roll 1D. Vehicle loses use of: 1-2 = Comms; 3-4 = Sensors; 5-6 = vehicle sentience suffers 1D damage.	Roll 1D. Vehicle loses use of: 1-2 = Comms; 3-4 = Sensors; 5-6 = vehicle sentience suffers 2D damage.	Roll 1D. Vehicle loses use of: 1-2 = Comms; 3-4 = Sensors; 5-6 = vehicle sentience suffers 3D damage.[1]	Hull Severity increased by +1. Vehicle sentience suffers mindburn.	Hull Severity increased by +1. Vehicle sentience suffers mindburn and 3D damage.[2].

1: Compute damage normally for eidolon sentiences, basic sentiences must also roll on Table 3-105: Mindburn (page 75).
2: Compute damage normally for eidolon sentiences, basic sentiences must instead roll on Table 3-106: Eidolon Crisis (page 76).

Table 6-18: Vehicle Equipment

Equipment	TI	Tons	Cost	Equipment	TI	Tons	Cost
Communications (Advanced)	T8	-	Cr2000	Paralysis Cannon	T9	2	Cr70000
Disruptor Cannon	T7	2	Cr200000	Plasma Gun	T8	4	MCr1
Disruptor Shield	T7	0.35	Cr75000	Repulsor Shield	T9	0.5	Cr150000
Haze Field	T8	0.25	Cr50000	Sensors (Improved)	T6	-	Cr3000
Hover Field	T7	-	Cr3000	Sensors (Advanced)	T8	-	Cr20000
Improved Suspensors	T8	-	Cr5000/ton	Short-term Life Support	T6	-	Cr2500/occ
Long-term Life Support	T9	0.2/occupant	Cr4000/occ	Stasis Web	T8	-	Cr3000
Navigation (Improved)	T6	-	Cr2000	Stun Cannon	T8	1	Cr40000
Navigation (Advanced)	T8	-	Cr5000	Variform Design	T9	-	Cr50000
Null Cannon	T7	1	Cr100000	ZIP Cell	T8	-	Cr3000

cost listed are for vehicles up to 5 tons. Divide the tonnage of vehicles larger than 5 tons by 5 and round all fractions up. For example, a 16-ton vehicle would require 1.4 tons to use a disruptor shield.

HAZE FIELD (T8)

The vehicle is protected by a haze field, which provides minor protection, as well as radiation shielding and protection against vacuum. Open-topped vehicles fitted with haze fields provide protection from wind and weather as well as providing pressure support against vacuum. Haze fields provide +5 armour, 100 rads of protection, and the DM-2 that all fields impose upon attacks directed against the vehicle. The tonnage and cost listed are for vehicles up to 5 tons. Divide the tonnage of vehicles larger than 5 tons by 5 and round all fractions up. For example, a 16-ton vehicle would require 1 ton to use a haze field.

HOVER FIELD (T7)

This early version of suspensor technology is derived from haze fields. Hover fields push gently against solid surfaces, allowing vehicles and devices fitted with them to float up to 5m above the ground and to fly at speeds of up to 300kph.

IMPROVED SUSPENSORS (T8)

The vehicle has high speed suspensors, which permit it to reach hypersonic flight in an atmosphere and 10G acceleration in vacuum. The cost for this upgrade is Cr5000 per shipping ton of vehicle (ignoring shipping ton reductions due to variform design).

LONG-TERM LIFE SUPPORT (T9)

This life support system requires the vehicle to be powered by a ZIP plant, and uses a combination of feeder tanks and makepoint for creating food and water. It provides simple sanitation arrangements. While it can provide indefinite air, food, water, and sanitation, it provides no additional space, and, after 30 hours, conditions become increasingly cramped and unpleasant. This modification also includes the advantages of Short-Term Life Support, and requires 0.2 tons / occupant.

NULL CANNON (T7)

The null cannon is similar to the laser cannon in the ***Traveller Core Rulebook*** (page 136), but is T7, has auto 2, is less expensive, and only requires 1 ton of space.

Table 6-19: Vehicle Weapons

Weapon	TI	Range	Damage	Tons	Magazine	Traits
Disruptor Cannon	T7	2.5	1DD	2	-	AP10
Null Cannon	T7	5	1DD	1	-	AP10, Auto 2
Paralysis Cannon	T9	1	8D	1	-	Blast 10, Immobilise, Zero-G
Plasma Gun	T8	2.5	2DD	3	-	AP20, Blast 20
Stun Cannon	T8	2.5	7D	0.5	-	AP10, Blast 10, Stun, Zero-G

PARALYSIS CANNON (T9)
Designed for riot control and non-lethal warfare, this weapon can paralyse a large crowd in a few shots. It can immobilise any animal or drone of Large (+6) size or smaller. A hit completely immobilises drones of Large (+2) size or smaller and vehicles of 2 tons or smaller; against drones from Large (+3) to Large (+6) size, or vehicles from 2 to 20 tons, a successful attack reduces the target's Speed Band Number (***Traveller Core Rulebook***, page 59) by 1, +1 for each Effect, to a minimum of 0 (immobile). The immobilisation effect lasts a number of minutes (rounds x 10) equal to the Effect generated by the attack roll. The weapon has no effect on spacecraft powered by gravity engines.

PLASMA GUN (T8)
The plasma gun is a blaster (page 119) scaled up for mounting on a vehicle. It fires bolts of high-temperature plasma.

REPULSOR SHIELD (T9)
The vehicle is protected by a repulsor shield, providing significant armour as well as radiation shielding and protection against vacuum. Repulsor shields provide +10 armour, 30 rads of protection, and the DM-2 which all fields provide to attack rolls directed against the vehicle. The tonnage and cost listed are for vehicles up to 5 tons; divide the tonnage of vehicles larger than 5 tons by 5, and round all fractions up. For example, a 16-ton vehicle would require 2 tons for a repulsor shield.

SENSORS (IMPROVED) (T6)
This sensor includes lidar, radar and an EM scanner, has a range of 5 km, and provides a DM+1 to all Interface (sensor) checks.

SENSORS (ADVANCED) (T8)
This sensor includes infrawave and ultrawave sensors (page 147), a bioscanner, a densitometer, an emission sensor, a gravity wave scanner, and a ZIP field scanner; it has a range of 25km and provides a DM+2 to all Interface (sensor) checks.

SHORT-TERM LIFE SUPPORT (T6)
This life support system uses feeder tanks to provided unlimited amounts of breathable air for passengers, but includes no other amenities. It also seals the vehicle against vacuum and unbreathable (but not hazardous or insidious) atmospheres, and provides an extensible airlock that folds back against the hull when not in use.

STASIS WEB (T8)
The vehicle can form a stasis field around its passenger compartment. The occupants can trigger this field manually, and the vehicle automatically triggers it during a crash or other dangerous situation. The vehicle has a distress signal, basic sensors, and a basic sentience outside the stasis field, so that it broadcasts a distress signal and monitors outside conditions while the occupants are in stasis. The vehicle automatically turns off the stasis field if conditions become safe. If the vehicle is destroyed except for the stasis field (which is indestructible), then the stasis field will remain activated indefinitely until it is deactivated from the outside, although a timed deactivation may be set before activating.

STUN CANNON (T8)
Designed for riot control and non-lethal warfare, this weapon stuns large numbers of targets at once. It renders the target incapacitated and unable to perform any actions for a number of minutes (rounds x 10) equal to the amount by which the damage exceeds his END.

VARIFORM DESIGN (T9)
This vehicle can change shape, colour, and texture, allowing both cosmetic alterations and camouflage providing a DM-2 to any checks to spot the vehicle. The vehicle can compact itself for shipping, reducing its shipping size by half, and reconfigure itself to transform seats into cargo space and vice versa. Each passenger seat can become 0.25 tons of cargo space, and each ton of cargo space can become 4 passenger seats. The vehicle can also restrict seating space to increase the number of passengers carried by 50% (round up), but this cramped seating can't be used for more than 8 hours at a time. Finally, a vehicle with long-term life support can comfortably house passengers for months, reconfiguring itself to create compact sleeping arrangements and similar amenities; it can even become a small but comfortable dwelling. However, variform design cannot alter a vehicle's speed, armour, total amount of passengers and cargo, sensors, or weapons.

ZIP CELL (T8)
The vehicle is powered by a small ZIP plant, which supplies it with sufficient power despite taking up less than a litre of space. ZIP plants last for more than a decade of regular heavy use before requiring overhaul. All vehicles listed below, and all Commonality vehicles, include ZIP cells as standard, and don't need to have them added.

Vehicle List
The AFV, ATV, and Ground Car from the ***Traveller Core Rulebook*** (pages 139-141) are available, and both the AFV and ATV of T7+ have unlimited range; T7 versions use compact fusion reactors, and T8+ versions are powered by ZIP cell. The AFV costs Cr100,000 and the ATV costs Cr80000. The G/bike is available for only Cr8000, and also has unlimited range, powered by ZIP cell. Other vehicles are given below.

Vehicle Skills in *Mindjammer*

Almost every T7+ vehicle has highly advanced automated controls, and many Commonality vehicles are sentient. As a result, most Commonality citizens, and many outside the Commonality, possess only vehicle skills of level 0 at best. Most Fringe World vehicles, and some Commonality vehicles, also possess manual controls, but less expensive vehicles often do not. Almost all vehicle autopilots have a DM+3 when operating autonomously, which means that anyone who isn't fairly experienced with driving or piloting vehicles is less competent than the vehicle itself.

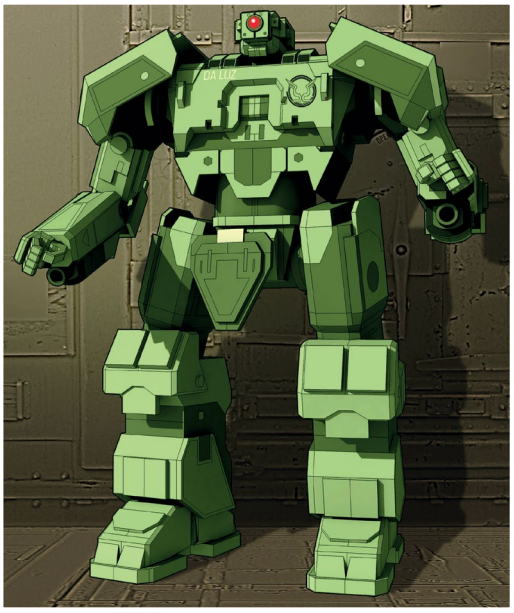
However, there are still reasons for people to know how to pilot vehicles. Except for those vehicles provided with overrides by law enforcement personnel, intelligence operatives, or other authorised individuals, civilian vehicles refuse to break local traffic laws, engage in high speed chases, or flee the scene of a crime. Anyone wishing to perform any of these actions without the authority to order their vehicle to comply must find a vehicle with manual controls, unless they can hack the authorisation. T7+ vehicles never require a separate autopilot, since it's always standard equipment.

- *Giving a Vehicle Autopilot an Illegal Law Enforcement Override:* Very Difficult (12+) Intrusion (security systems) check (1D x 10 minutes, INT).

COMMONALITY ASSAULT WALKER (T8)

The logical development of high-threat assault armour, the Murasaki Corp CAW-400 is a 4-metre tall humanoid assault walker usually fitted with a range of weapons. The model below has light autocannon and cannon, but other options include a null cannon for long range combat, and a plasma gun for high power attacks.

Vehicle



TI	*8*
Skill	*Drive (walker)*
Agility	*+0*
Speed (Cruise)	*High (Medium)*
Range (Cruise)	*Unlimited*
Crew	*1*
Passengers	*0*
Cargo	*0.1*
Hull	*12*
Shipping	*2 tons*
Cost	*Cr500000 (Restricted)*

Armour	
Front	*40*
Sides	*40*
Rear	*40*

Equipment and Traits: *Communications (Advanced), Light auto cannon, Navigation (Advanced), Sensors (Advanced), Short-Term Life Support, ZIP Cell.*

GRAV TANK (T9)

Vehicle

The grav tank is the natural successor to the ground tank, a mobile weapons platform capable of grav operations. Usually controlled by an eidolon sentience, grav tanks operate solo or with 1 or 2 crew (usually a pilot and gunner).

TI	*9*
Skill	*Flyer (grav)*
Agility	*+0*
Speed (Cruise)	*V. Fast (Fast)*
Range (Cruise)	*Unlimited*
Crew	*2 (pilot and gunner)*
Passengers	*0*
Cargo	*0.5*
Hull	*72*
Shipping	*12 tons*
Cost	*MCr1.5 (restricted)*

Armour	
Front	*90* (80)*
Sides	*90* (80)*
Rear	*90* (80)*

Equipment and Traits: *Communications (Advanced), Navigation (Advanced), Plasma Cannon, Repulsor Shield, Sensors (Advanced), Short-Term Life Support, ZIP Cell.*

** Includes repulsor shield.*

TRIPHIB (T9)

Vehicle

A pressurised grav flyer with submersible and orbital capability, often carried aboard explorer ships. Its haze field provides sufficient radiation protection for it to safely travel to moons, orbital stations, or even nearby planets.

TI	*9*
Skill	*Flyer (grav)*
Agility	*+3*
Speed (Cruise)	*Supersonic (Subsonic)*
Range (Cruise)	*Unlimited*
Crew	*1*
Passengers	*5*
Cargo	*1*
Hull	*24*
Shipping	*4 tons*
Cost	*Cr85000*

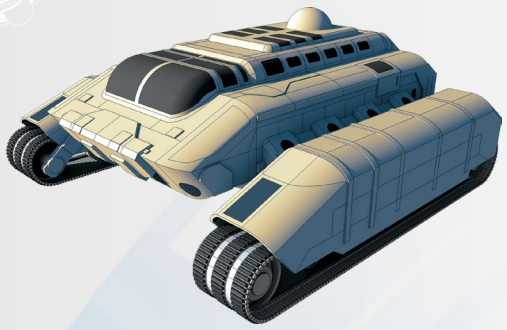
Armour	
Front	*15* (10)*
Sides	*15* (10)*
Rear	*15* (10)*

Equipment and Traits: *Aquatic Drive (Maximum underwater speed = High), Communications (Advanced), Entertainment System, Haze Field, Long-Term Life Support, Navigation (Advanced), Sensors (Advanced), Stasis Web, ZIP Cell.*

** Includes haze field*

LARGE ATV (T9)

Vehicle



All-Terrain Vehicles are used throughout the Commonality, especially by instrumentalities, and also on rugged colony worlds. This T9 variform ATV has a maximum 10-person occupancy, with 4-8 people being optimal. It's 10m long, with two decks, and can be carried in a ship docking bay. It can switch between a rugged tracked drive and a grav option that permits orbital flight.

Many corporacies produce low-tech versions for ease of maintenance. The T7 version has a rugged track drive system for use as a long endurance planetary surface vehicle; at T8 a grav option replaces the track drive, allowing it to operate as an orbital shuttle; and the T9 version (shown here) is variform.

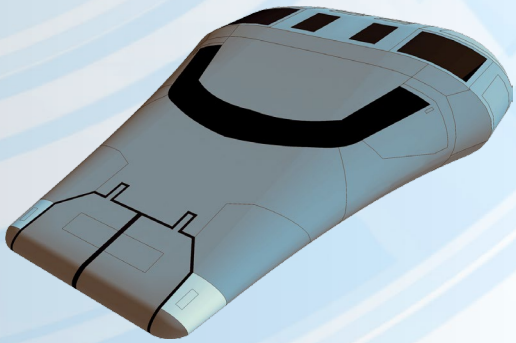
TI	*9*
Skill	*Drive (tracks) / Flyer (grav)*
Agility	*+1*
Speed (Cruise)	*High (medium)* *Subsonic (Very Fast)*
Range (Cruise)	*Unlimited*
Crew	*1*
Passengers	*7*
Cargo	*2*
Hull	*72*
Shipping	*12 (6) tons*
Cost	*Cr80000 for standard* *Cr130000 for variform*

Armour	
Front	*30*
Sides	*30*
Rear	*30*

Equipment and Traits: *Communications (Advanced), Long-Term Life Support, Navigation (Advanced), Null Cannon, Sensors (Advanced), Stasis Web, Variform Design, ZIP Cell.*

FLYER (T8)

A closed but usually unpressurised personal grav vehicle capable of reaching orbit, and the most common vehicle on Commonality worlds.



Vehicle

TI	*8*
Skill	*Flyer (grav)*
Agility	*+1*
Speed (Cruise)	*Subsonic (Very Fast)*
Range (Cruise)	*Unlimited*
Crew	*1*
Passengers	*5*
Cargo	*1*
Hull	*16*
Shipping	*4 tons*
Cost	*Cr15000*

Armour	
Front	*6*
Sides	*6*
Rear	*6*

Equipment and Traits: *Communications (Advanced), Entertainment System, Navigation (Improved), Sensors (Improved), ZIP Cell.*

SMALL FLYER (T8)

This small teardrop-shaped vehicle is a smaller, less expensive version of the Flyer, and the most common vehicle on most T7+ Fringe Worlds. Its main limitation is that its non-sentient AI (at T7) or its basic sentience (at T8+) relies on contact with the local Mindscape or proto-Mindscape for navigation, and so it's less useful on worlds without at least a T6 proto-Mindscape.

Vehicle

TI	*8*
Skill	*Flyer (grav)*
Agility	*+0*
Speed (Cruise)	*Subsonic (Very Fast)*
Range (Cruise)	*Unlimited*
Crew	*1*
Passengers	*3*
Cargo	*0.5*
Hull	*12*
Shipping	*3 tons*
Cost	*Cr9000*

Armour	
Front	*4*
Sides	*4*
Rear	*4*

Equipment and Traits: *Communications (Advanced), Entertainment System, Sensors (Improved), ZIP Cell.*

VENU CRAWLER (T7)

An articulated tracked APC with a low profile, the crawler can transport 20 or more Venu troopers into combat zones rapidly. It has a crew of 2 (driver and gunner), and is armed with a top pintle-mount disruptor cannon.

Vehicle

TI	*7*
Skill	*Drive (tracks)*
Agility	*-2*
Speed (Cruise)	*Medium (Slow)*
Range (Cruise)	*Unlimited*
Crew	*2 (pilot and gunner)*
Passengers	*20*
Cargo	*2*
Hull	*90*
Shipping	*15 tons*
Cost	*Cr300000 (restricted)*

Armour	
Front	*70*
Sides	*60*
Rear	*50*

Equipment and Traits: *Communications (T8), Disruptor Cannon, Navigation (Improved), Sensors (Improved), Short-Term Life Support.*

VENU PREDATOR (T7)

Effectively a giant combat walker, the Venu predator has a crew of 1, and is extremely effective against ground troops and small vehicles alike.

Vehicle

TI	*8*
Skill	*Drive (walker)*
Agility	*-1*
Speed (Cruise)	*Medium (Slow)*
Range (Cruise)	*Unlimited*
Crew	*1*
Passengers	*0*
Cargo	*0.1*
Hull	*18*
Shipping	*3 tons*
Cost	*Cr600000 (restricted)*

Armour

Front *40* (35)*
Sides *40* (35)*
Rear *40* (35)*

** Includes disruptor shield*

Equipment and Traits: *Communications (T8), Disruptor Cannon, Disruptor Shield, Navigation (Improved), Sensors (Improved), Short-Term Life Support.*

VENU TRIPOD (T7)

These towering tripods often act as forward observation platforms as well as mounting anti-tank attacks. They're used for routing ground troops and panicking civilian populations. A Venu tripod has a crew of 3.

Vehicle

TI	*8*
Skill	*Drive (walker)*
Agility	*-2*
Speed (Cruise)	*High (Medium)*
Range (Cruise)	*Unlimited*
Crew	*3 (driver and 2 gunners)*
Passengers	*0*
Cargo	*0.5*
Hull	*24*
Shipping	*4 tons*
Cost	*MCr1 (restricted)*

Armour

Front *60* (55)*
Sides *60* (55)*
Rear *60* (55)*

** Includes disruptor shield*

Equipment and Traits: *Communications (T8), Disruptor Cannon, Disruptor Shield, Light Autocannon, Navigation (Improved), Sensors (Improved), Short-Term Life Support, Venu Disruptor Cannon (page 122).*

CHAPTER SEVEN
THE MINDSCAPE

"Lyra Da Luz switched to virtuality, and the sentinel materialised before her. All around, the intricate diaphanous lattices of the Mindscape drifted and sparkled with crystalline tracery, beating to an unheard pulse of communication, thought, life. The sentinel was a standard model, unintelligent but with passable emulation routines, like a crystal dragonfly with an info tether reaching towards her."

The Mindscape is a communications medium, a vast data store, and a collection of virtual spaces. It permeates the Commonality, connecting citizens, conveying thanograms and thoughtcasts, and enabling technopsi. There are Mindscape satellites, vaults, and networks throughout Commonality Space.

Characters can use the Mindscape in many ways, including:

- Exploiting Mindscape data to gain positive DMs on tasks (like using **exomemory** to find obscure information).
- Using the Mindscape medium to take actions affecting the actual world (such as using mindburn or technopsi domination to overwhelm other characters).
- Taking actions within the Mindscape virtual environment (like using the Art (Mindscape) skill to create virtual environments, or a special ops/black chip to attack Mindscape sentinels).

THE HALO

The **halo** is an extension of a Mindscape-connected individual **into** the Mindscape. It's the aggregation of all your abilities which rely on Mindscape connectivity to function, including skill chips, the Mindscape implant, as well as content like thoughtcasts and exomemories. It's exposed to the Mindscape and subject to hacking attempts. Abilities within your halo can be used as long as you're connected to the Mindscape, and become temporarily unusable whenever you're not.
Mindscape-connected individuals perceive one another's haloes; it's how Mindscape implants connect when **handshaking**, routinely exchanging public personal information. You can choose what personal information you make public in your halo; most people reveal their names, Mindscape ID, and often trivia like occupation, interests, and homeworld. Unless someone wishes to keep this information private, you can find this information automatically, without a dice roll.

Your halo also contains private encrypted content, including personal memories and halo skills, which depend on the Mindscape. You can discover and read encrypted halo content using technopsi, even disrupting, damaging, or disabling halo abilities, and in extreme cases even **stealing** them.

DOING THINGS WITH THE MINDSCAPE

You may use the Mindscape to take actions in the physical world, either using the Mindscape directly or drawing on its content to enhance your knowledge or skills. This phenomenon is known as **technopsi**. Technopsi represents your abilities to use your Mindscape implant to achieve various effects. You must have either a Mindscape implant (page 103) or a special ops/black chip (page 105) to use technopsi. **Any task in this chapter marked with an asterisk (*) requires a special ops or black chip to use**, while those without are available to anyone with a standard Mindscape implant.
Using a special ops/black chip is difficult and draining. To

represent this, characters with this implant have a pool of **technopsi points** (TP) equal to their END. Using any of these abilities requires the expenditure of 1 or more technopsi points as well as a successful roll. Technopsi points recover at a rate of one per hour.

Technopsi techniques don't have a specific range, but you may only use them on targets you're already in communication with or, in some cases, whose Mindscape ID you already know; otherwise you must first use **sensorview** (page 132) or a **Mindscape tracer** (page 114) to locate and identify the target. You can use these abilities on anyone connected to the Mindscape, including node minds and sentient starships.

Thoughtcasts

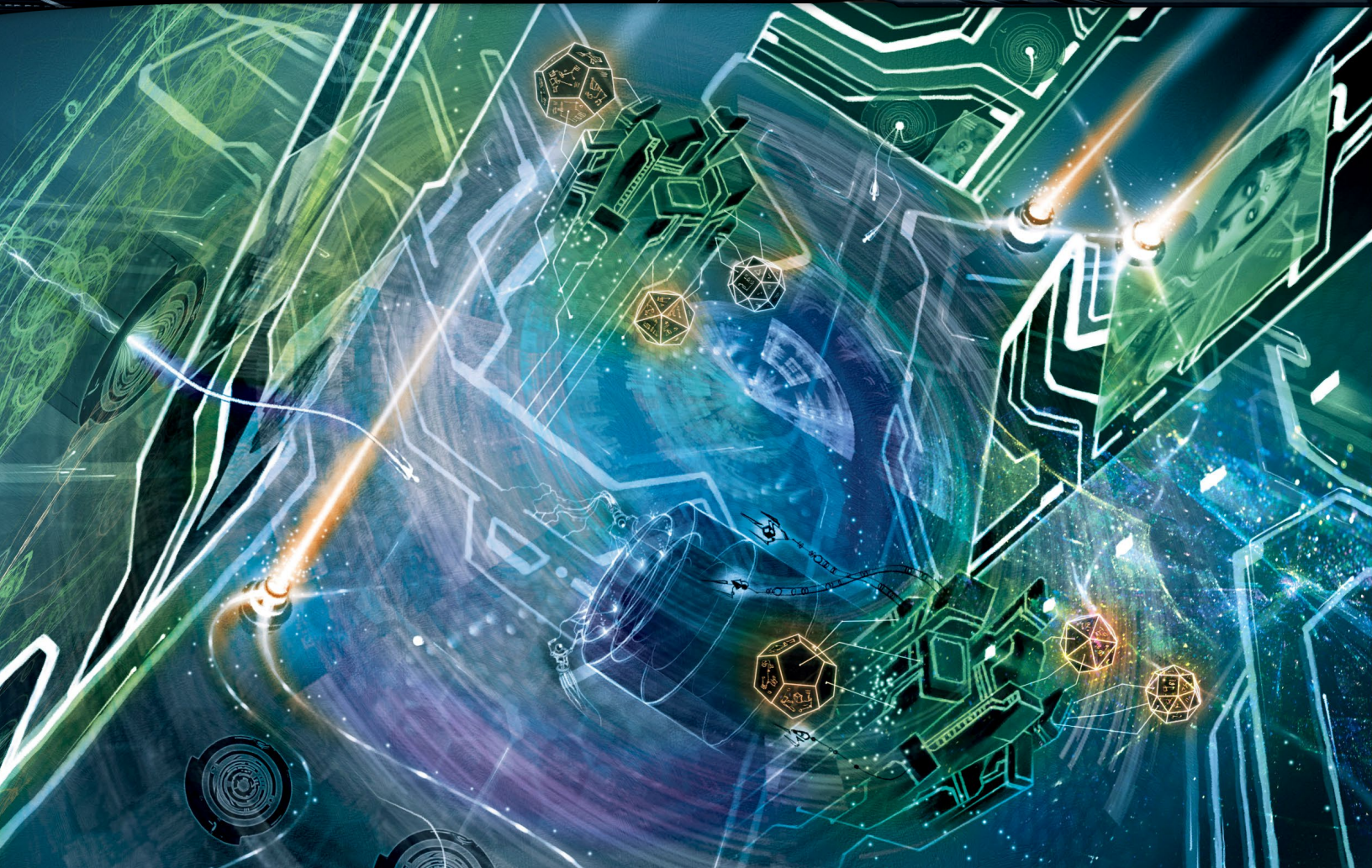
Thoughtcasting, also known as **techno-telepathy**, is one of the two principle uses of the Mindscape (the other being **exomemory**; see below). Thoughtcasting allows one Mindscape-connected individual to communicate with another, either in real-time or in a delayed exchange. A user creates a message in his mind and then uses the Mindscape implant to transmit that message across the Mindscape to a recipient, who receives an indication that the message has arrived, and can choose to hear those words in his mind. Entire conversations may be held this way, while to an outside observer it looks like nothing is happening. Thoughtcasts are usually private between participants (of whom there may be many), but can be hacked. Thoughtcasts are limited to text, visuals, and sound if the person lacks a Mindscape implant and is instead using some sort of worn or handheld device. If the recipient also has a Mindscape implant, you can also send messages including full-sensory information and even emotions or memories.

- *Send a Thoughtcast*: You can send message to anyone whose Mindscape ID you know. No check is necessary to use this ability.

If you have a special ops/black chip, you can also set up an illicit Mindscape hack that allows you to receive copies of all thoughtcasts sent by or to a specific individual. Mindscape security protocols eliminate all such hacks within 2D-1 hours and they can be eliminated within a few minutes if the indi-

Special Ops / Black Chip Technopsi

- *Technopsi Points (TP) equal to END.*
- *Spend TP to use special ops / black chip technopsi.*
- *Recover 1 TP per hour.*



vidual realises that a hack has occurred and reports it to the sentinels and dirigeants who monitor the Mindscape.

- *Access a Private Thoughtcast*: Very Difficult (12+) Informatics (Mindscape) check (1D x 10 seconds, INT); TP Cost: 1.

Locating a Mindscape ID: The recipient of a thoughtcast may be anywhere in the Commonality, although interstellar thoughtcasts only travel at the speed of Mindscape updates, and not in real-time. If a Mindscape user is within visual range, you may usually perceive his halo automatically and invite him to communicate via thoughtcast, a process known as **handshaking**. A Mindscape user may decline this handshake, use his **privacy field** to render his halo opaque, or even activate a monitor band cloak (page 105). Characters with special ops/black chips may roll to communicate with a character against his will. This forced communication is often a precursor to a technopsi attack.

- *Force Communication With Someone**: Difficult[1] (10+) Informatics (Mindscape) check (1D seconds, INT); TP Cost: 1.
  [1] *The difficulty of this check rises to Formidable (14+) if you're attempting to force communication with someone using a monitor band cloak (page 105), or who possesses a special ops/black chip. Attempts to force communication with someone who has both a special ops/black chip and an active monitor band cloak automatically fail.*

Searching for a Mindscape-connected user in a crowd of Mindscape-connected individuals in your line of sight requires sensorview (page 132) and a dice roll. At ranges beyond line-of-sight, you need a Mindscape tracer (page 114). Every Mindscape implant emits a distinct signal called its **monitor band**. This action allows you to locate and track someone's monitor band via their Mindscape ID.

- *Use a Mindscape Tracer:* Routine[1] (6+) Investigate check (1D x 10 seconds, INT or EDU).
  [1] *The difficulty of this check rises to Very Difficult (12+) if you're attempting to locate the monitor band of anyone using a monitor band cloak (page 105).*

Exomemory

The Mindscape is also a vast store of data, including **exomemory** engrams. You may thoughtcast your memories to the Mindscape, where they may be accessed and "re-remembered" by you, and even by other people. It's voluntary, like taking photographs or videos today, and requires a very small but finite amount of concentration; people do it at important moments, to "relive" the experience later. People who frequently travel to different star systems often carry a personal Mindscape instance (PMI) containing their up-to-date exomemories with them. You can make any or all of your exomemories **public**, **private**, or (if you possess a special ops/black chip) **restricted**.

Checks to recall public exomemories are in fact checks to determine whether a corresponding exomemory actually exists, and whether you can locate it in the timeframe given (you can of course take longer). If a given public exomemory is known to exist, then the check to retrieve it is Simple (2+).

Public exomemories are accessible to anyone with access to the Mindscape they're in.

- *Retrieve a Public Exomemory, or a Private Exomemory You Have Legitimate Access To:* Average (8+) Informatics (Mindscape) check (1D seconds, INT or EDU).

Private exomemories are accessible to individuals who've been given access to them, and impossible for anyone else to access unless they possess a special ops/black chip and are willing to hack into them.

- *Hack Into a Private Exomemory**:* Very Difficult (12+) Informatics (Mindscape) check (1D x 10 seconds, INT); TP Cost: 2.

Restricted exomemories can only be created by someone with a special ops/black chip. Restricting an exomemory is easily done.

- *Restrict a Personal Exomemory**:* Average (8+) Informatics (Mindscape) check (1D x 10 seconds, INT or EDU); TP Cost: 0.

Attempting to hack into a restricted exomemory is an opposed check with the individual who restricted the exomemory.

Memoplexes

The personalities of humans and other sentient beings are directly related to their memories; how they remember their experiences and actions, and how they interpret the universe around them. A change in a character's memories, whether through experience, mental damage, or acquiring a new exomemory, can change a character's personality. The Commonality exploits this phenomenon by creating **memoplexes**, also known as **servitor gestalts**. A memoplex is a specially designed array of exomemories which provides individuals sharing it with a common set of abilities, vicarious experiences, and knowledge. Joining a memoplex alters a member's personality in specific ways, perhaps making members of a military memoplex more violent or tactically-minded, or members of a political or instrumentality memoplex more loyal, or bestowing shared attitudes and beliefs. Memoplexes are used when joining sensitive organisations to ensure loyalty.

A memoplex provides skill levels, but by definition it also automatically provides one or more propagandistic moral values which direct a member's personality down a clearly defined path. In rules terms, each memoplex contains between 1 and 6 skill levels and a single meme (page 81). This meme can be as simple and unsubtle as *Loyal Servitor of the 3SI* or as devious as *When You Have a Hammer Everything Starts to Look Like a Nail*. A memoplex can also contain a single common flaw (page 40). Memoplexes aren't common for general members of organisations, but for secret elite forces within them.

Thanograms

A **thanogram thoughtcast** uploads a **thanogram**, a personality and memory "snapshot" of an individual at the moment of their death. Invasive once begun, the process can be damaging, and people usually wait until they know they're dying before initiating one. In theory, anyone can create one at any time, but the process is both dangerous and unpleasant. Treat a thanogram thoughtcast as a series of 5 mindburn attacks, by an opponent with Gun Combat (mindburn) 5. Also, once started, a thanogram thoughtcast can't be stopped. Some technopsi specialists can even force targets to initiate thanogram thoughtcasts involuntarily.

Countless thanograms are stored in the Mindscape, in varying degrees of completeness, and may be examined. Usually this involves simply searching exomemories; however, in extreme cases thanograms may be instantiated in eidolon rigs as personality simulations and interrogated. Ethically dubious, this option isn't available to normal Commonality citizens, and requires either special permission or substantial skill at Mindscape hacking and a special ops/black chip.

Thanograms are the basis for eidolon personalities (page 30). Usually, eidolons are derived as much as possible from a single thanogram, for greater coherence and stability. However, some may comprise elements from two or more thanogram sources, providing unique memory and personality traits at the risk of instability and unpredictable flaws.

- *Force Someone to Initiate a Thanogram Thoughtcast*:* Formidable (14+) Informatics (Mindscape) check (1D minutes, INT); TP Cost: 7.
- *Instantiate a Thanogram in an Eidolon Without Permission*:* Formidable (14+)[1] Science (Mindscape) check (1D x 10 minutes, INT); TP Cost: 5.
  [1] *This check also incurs a Bane.*

Sensorview

Sensorview is an additional sense possessed by Mindscape-linked characters, allowing them to use the Mindscape and linked equipment such as hand scanners, PSAs, and starship active and passive sensors to perceive targets in unique ways. It's mostly used like any other sense; you can use the Mindscape to perceive things, use your Investigate and Recon skills to "see" infrared or other energies with your PSA, and so on. A target must be perceived in sensorview to be the target of technopsi attacks. No roll is necessary to use sensorview, but it is often used in conjunction with Interface (sensors), Investigate, Medic, Recon, or Science checks to interpret the information gained via sensorview.

- *Locate a Particular Mindscape User in a Crowd of Mindscape Users:* Average (8+)[1] Recon check (1D seconds, INT).
  [1] *In an exceedingly large crowd the difficulty rises to Difficult (10+).*

Remote Control

Commonality citizens regularly use technopsi to control equipment. Depending on the discretionary interface (page 90), you may even use a device's senses via sensorview, as with an avatar. Using remote control on a device you own requires no rolls beyond any rolls needed to operate a device or pilot a vehicle. The process is treated exactly as if you were physically present. You may also use remote control on devices which don't belong to you, including those belonging to other people.

You can only use the Mindscape to control equipment that is not controlled by an eidolon. Also, without a special ops/black chip, you can also only control equipment you own or equipment which someone has given you permission to control. When controlling equipment like drones, which is not designed to also be physically operated, you use the Interface (remote ops) skill.

If you possess a special ops/black chip, you can take control of devices and vehicles that you do not have permission to use. This ability does not allow you to take control of vehicles controlled by eidolon sentiences (see **Domination** below), but it does allow you to control any piece of equipment which is connected to the Mindscape, regardless of whether it contains a basic sentience or not (most do). Using this ability either requires you to be in the target's physical

presence, or for you to first view it using direct perception feed or sensorview.

- *Perform Restricted Remote Control*:* Formidable (14+) Interface (remote ops) check (1D x 10 seconds, INT); TP Cost: 3.

Mindburn

Mindburn is a brutal attack that disrupts the target's mind and also causes physical damage. You may only make **mindburn** mental attacks on Mindscape-connected targets. Mindburn isn't directly affected by range. The attacker must concentrate throughout the attack, which precludes attacks over interstellar distances, but if an attacker in orbit, say, can locate a target on a planet (or vice versa), then a mindburn attack is possible. A successful mindburn forces the target to roll on Table 3-105: Mindburn (page 75).

- *Perform a Mindburn Attack*:* Very Difficult (12+) Gun Combat (mindburn) check (1D seconds, INT); TP Cost: 5.

Targets without a special ops / black chip who are subject to a mindburn attack can attempt to resist, inflicting a penalty equal to their INT DM to the attacker's mindburn roll. When attacking targets who also possess a special ops / black chip and the Gun Combat (mindburn) skill, all mindburn attacks become opposed checks, where the loser suffers the mindburn.

Mindburn can also be used to attack a target's halo abilities. In this type of mindburn attack, every point of Effect removes one halo skill level; the target may choose which skills are affected. These abilities remain inaccessible until the target either receives mindburn therapy via the Medic (redaction) skill, or they have spent 2D hours patiently restoring their halo skills.

Direct Perception Feeds

Direct perception feeds enable **ubiquitous perception** (page 91). They're a way to make Investigate, Interface (sensors), or Recon checks via the Mindscape, including locating targets for technopsi attacks. DP feeds are usually limited to public spaces. Instrumentality, corporacy, or Pansectorate personnel, criminals, and other individuals concerned with secrecy or privacy don't thoughtcast DP feeds. That doesn't mean an unconnected individual might not accidentally be providing a DP feed which might be useful, or that you can't insinuate stealth or sensor drones into a secure building to provide one.

Hacking into a direct perception feed allows you to access anything from sensors in a restricted area, like a private home, or even someone else's senses. You can also use this same ability to attempt to access a Mindscape you've been restricted from using. However, this last case always requires an opposed check.

- *Access a Restricted Direct Perception Feed*:* Very Difficult[1] (12+) Interface (sensors) check (1D minutes, INT); TP Cost: 2.

  [1] *The difficulty of this check rises to Formidable (14+) if you're attempting to use the senses of someone who also possesses a special ops/black chip.*

Restricting Mindscape Access

A Mindscape **dirigeant**, or skilled Mindscape engineer or hacker, may **embargo** an individual, preventing him from accessing the Mindscape. Normally, a dirigeant must simply know the target's Mindscape ID and locate him using sensorview or Mindscape tracer whenever he uses the Mindscape. A target may hide from a dirigeant using a monitor band cloak or other form of Mindscape stealth. For a target with a special ops or black chip, an opposed check is required, usually involving the dirigeant's Admin against the target's Informatics (Mindscape). The target may defend using technopsi such as mindburn if he can identify his attacker.

If you're authorised to control Mindscape access, then you can keep someone out as long as you want, unless they also have a special ops/black chip, in which case they can attempt to make an opposed check to retain Mindscape access.

- *Restrict a Target's Mindscape Access*:* Formidable[1] (14+) Informatics (Mindscape) check (1D minutes, INT); TP Cost: 3.

  [1] *The difficulty of this check falls to Average (8+) and uses the Admin skill instead if you're a dirigeant with legitimate control of Mindscape access.*

ADDITIONAL RESTRICTED MINDSCAPE ACTIONS

The following Mindscape tasks may only be performed by individuals with special ops/black chips.

Domination

Success on this check allows you to control a target's body for a short period of time. After 1D minutes, you must make another check to continue controlling the target. Dominated targets move clumsily and jerkily, and there's no fine control; you can't dominate someone to fly a starship or perform an operation, for example. All physical actions you make the target perform suffer from a Bane, and cannot perform checks of more than Average (8+) difficulty. You can also use Domination to attempt to take control of a sentinel in the Mindscape, but if you succeed, task checks to control the sentinel do not suffer from a Bane, since it can't resist control.

- *Control a Target's Physical Body*:* Formidable (14+) Interface (remote ops) check (1D minutes, INT); TP Cost: 5.

Illusion

You can create full sensory illusions for a single target. None of these images are tangible, nor can they cause damage; illusory lava feels hot, but doesn't burn the target, and an illusory bridge can support no weight. A target may realise her senses are lying to her, but knowing this does not make the illusions vanish or seem less real.

- *Create an Illusion in the Mindscape*:* Very Difficult (12+) Art (Mindscape) check (1D minutes, INT); TP Cost: 3.

Probe

Interface directly with an opponent's Mindscape implant and perceive her surface thoughts.

- *Read a Target's Surface Thoughts*:* Formidable (14+) Informatics (Mindscape) check (1D x 10 seconds, INT); TP Cost: 3.

Steal Halo Abilities

You can steal a halo ability instead of (or in addition to) disrupting it, as long as that ability has no physical or genurgic component. This usually means Mindscape content like thoughtcasts and exomemories, but can also include skill chips and virtual augmentations. The attacker must target a specific halo ability to attempt to steal it.

Stealing halo skills isn't a pleasant process. Because every skill chip has been specifically adapted for the person you're stealing the skill from, using the skill is uncomfortable and foreign, and you suffer a DM-1 when using it. Unless you adapt the skill to your own halo, using it becomes increasingly unpleasant and difficult, and the penalty increases by DM-1 every 2 days until the skill becomes useless. If you want to retain the skill, you must first format the skill to your own halo, and then perform study periods similar to those needed when gaining any other halo skill or skill chip (page 111). Each point of Effect rolled steals 1 point of halo skill from the target. The target cannot use the stolen skills until they've spent 2D hours patiently restoring them. You can also use the same check to steal a target's exomemories or thoughtcasts. Each point of Effect steals 1 hour of exomemory or up to five thoughtcasts. You can either attempt to steal specific memories or thoughtcasts that you know the target possesses, or you can attempt to steal exomemories or thoughcasts from a specific time period.

- *Steal Halo Abilities*:* Formidable (14+)[1] Informatics (Mindscape) check (1D x 10 seconds, INT); TP Cost: 5.
  [1] *This check also suffers from a Bane.*
- *Format a Stolen Halo Skill to Your Own Halo:* Very Difficult (12+) Informatics (Mindscape) check (1D x 10 seconds, EDU).

Virtualisation

You can temporarily disrupt or even reshape virtualities and imposalities, and can alter an imposality's virtual landscape so that someone else no longer controls its appearance. In rules terms, you can give yourself a Boon when performing actions in the virtuality or Imposality, and impose upon anyone else in there either a Bane or a Boon (your choice). This change lasts until the virtuality's owner attempts to restore its appearance. If you're still attempting to control the virtuality, then this becomes an opposed check.

- *Disrupt or Temporarily Reshape a Virtuality or Imposality:* Very Difficult (12+) Informatics (Mindscape) check (1D x 10 seconds, INT); TP Cost: 4.

DOING THINGS IN THE MINDSCAPE

As well as a tool for taking actions in the actual world, the Mindscape is also an environment in which you can act.

Describing the Mindscape

While the Mindscape isn't a "place" as such, it's sometimes convenient to treat it as one. Most Mindscape access is transparent and unnoticeable, like accessing your own memories or talking to someone. Sometimes, such as when accessing maps or images, it's convenient to use a "virtual vision" to represent the information, like a transparent overlay over your normal vision. Mindscape interaction is sometimes sufficiently complex that it's best represented as a virtual environment. Discretionary interfaces let you experience the Mindscape as a place: multidimensional, with sensory input as required. Your body remains as it was, but your attention is focused on the Mindscape "virtuality". Usually the nature of this virtuality is a matter of choice—you can select the "theme" yourself (mediaeval, natural, tech, mathematical, geometric, abstract). Accessing restricted content may force you into a specific theme, depending on its technopsi ability (usually very high); such a virtuality is called an **imposality**. If you're in a controlled virtuality (i.e. somewhere you shouldn't be) and you can't find your way out, you may be trapped there.

Acting in Virtualities and Imposalities

In game terms, virtual environments are treated similarly to actual ones. The GM describes the virtual spaces: you may be moving through a semi-abstract lattice of data-beams and blazing Mindscape nodes, surrounded by glowing avatars and sentinels (the "default" Mindscape virtual environment); or you may perceive the virtuality as a mediaeval castle, a beautiful forest, or an underwater reef. You take actions in a virtuality using your usual skills: Athletics, Stealth, etc.

Imposalities are virtualities in which the environmental "skin" is selected by the controller, giving them an advantage and putting intruders at a disadvantage. You may find an imposality obstructing you; maybe it's a labyrinth, or a tangled jungle, or filled with illusory distractions. In a typical imposality, including the type of virtuality which is a mustering-out benefit, attempts to obtain exomemories or other data there, or to use technopsi on unwilling legitimate users who are present in the virtuality, suffer a DM-4 penalty.

Accessing Restricted Content

Mindscape content can be restricted to specific individuals; to everybody else, it's not even there. You can restrict content yourself at will. If you have a special ops or black chip, you may restrict content you haven't created. Accessing restricted content is described above. Some restricted content may also be protected by sentinels (below), who must be overcome before the roll to access the content may be made. As hacking restricted content is illegal, characters may be spotted by patrolling sentinels even when the content isn't specifically protected.

- *Restrict Mindscape Content You Do Not Control*:* Formidable (14+) Informatics (Mindscape) check (1D minutes, INT); TP Cost: 4.

Sentinels

Mindscape sentinels are automated Mindscape entities—not intelligent per se, but with a high degree of non-sentient artificial intelligence. They can take on any appearance, often depending on discretionary interface; they may appear as virtual squid-like monsters, howling ghosts of whirling data, crystalline samurai, black-suited assassins, or other fanciful forms. All sentinels can attack using mindburn, and powerful sentinels can also attack with domination (page 133). Sentinel patrols may contain groups of up to half a dozen; those guarding restricted content or imposalities are often powerful sentinels. Sentinels must be fought in Mindscape combat, using Gun Combat (mindburn) or Interface (remote ops). Most Commonality citizens aren't equipped to fight them at all, since attacking or attempting to control sentinels requires a special ops/black chip. However, any Mindscape user can attempt to defend against a sentinel or escape using Athletics. Destroyed sentinels explode in a cloud of data; if you don't use Art (Mindscape) or Informatics (Mindscape) to camouflage the explosion, you are likely to attract the attention of yet more sentinels. For sentinel statistics, see "Extensions" (page 110).

Encountering Fictionals

There is no guarantee that information in the Mindscape is true. There are pseudo-memory engrams which never happened to anyone and thanograms of personalities which never existed outside a work of fiction. These are **fictionals**, and they're where the Mindscape begins to stretch the human mind. Imagine a world where you could talk to the Buddha, or to Jesus. Or where you could remember flying like a bird through the sky, or wielding creative powers like a god. All these things and more exist within the Mindscape, allowing the human mind to experience impossible things, imaginary or recreated historical events, and grow and develop from the experience. Reality, simulation, fiction, and memory blur in the Mindscape.

The nature of the Mindscape requires that fictionals are clearly identified. Sentinels (see above) patrol the Mindscape validating content; counterfeiting an actual is a major crime, usually only perpetrated by black chip or special ops chip users. Mindscape fictionals are mostly a descriptive element applied to exomemories, virtualities, and personalities in the Mindscape. Problems begin when you don't realise you're dealing with a fictional, or when the fictional by its nature delivers a profoundly disturbing experience. Did you really have a secret life as a corporacy assassin? Is your family really dead? Is your friend really plotting against you? Here's how to handle that.

Perceiving Fictionals

Fictionals are usually clearly identified. However, if you encounter something you believe to be false, but which is not identified as a fictional, you can attempt to determine if it is. If you succeed, you realise the fictional's nature; otherwise, you accept its reality, even though you may logically know it's impossible.

- *Determine If Something Is a Fictional:* Difficult (10+) Investigate or Informatics (Mindscape) (1D x 10 seconds, INT).
- *Determine If Something Is a Fictional (vs. Active Opposition):* Opposed Informatics (Mindscape) (1D x minutes, INT).

Accepting a fictional as real can provide a character with a wealth of potentially dangerous misinformation. If false exomemories are designed to replace real exomemories, then a character could also be left with partial amnesia and potentially even lose up to 4 points of EDU. In addition, believing a fictional can either give a character a single common flaw or eliminate a single common flaw the character already suffers from. However, while eliminating a longevity restriction gained via great age is possible using these means, doing so always requires both radical alteration of the character's memories, and replacing it with a new longevity restriction that better fits these new memories. At this point, even if the character has clear proof that the fictional is false, these flaws and EDU alterations do not vanish, because the emotional impact and altered knowledge remains, unless the character replaces the fictional with a backup of her actual exomemory.

A **fictional character** is essentially a disguised sentinel. It may take actions as a sentinel, but its real danger comes when you accept it's real. You can talk to your dead lover, an ancient guru, or even the Buddha, and your mind accepts the experience as real. If you do accept a fictional character as real, the experience can potentially alter your allegiances.

Creating fictionals which are not intended to deceive others is relatively easy.

- *Create a Fictional:* Difficult (10+) Art (Mindscape) check (1D x 10 minutes, INT).

Creating a fictional which appears real requires a special ops/black chip.

- *Create a Fictional Which Seems Real:* Formidable (14+) Art (Mindscape) check (1D hours, INT); TP Cost: 5.

Silent Death on Cicero Station

Fictionals are a gift to mad scientists and criminals—who with a yearning for galactic domination wouldn't want to create a synthetic version of Vlad the Impaler or Napoleon? Cerberus, or Hydra?

The player characters are working for the Internal Security Instrumentality (page 197), tracking down a serial killer on the Javawayn star city Cicero Station, whose modus operandi is like some giant, predatory insect; the few surviving witnesses report a terrifying shape in the shadows, with enormous claws and jaws. Yet there are no unaccounted life signs on the station; by all accounts this looks like a fictional, a synthetic nightmare created by a madman. But is it? And, if it is, who created it, and what is it going to do next?

MINDSCAPE PHENOMENA

The Mindscape gives rise to several phenomena which have a great impact on life in the Commonality.

Chronodisplacement

There's one great limit to the Mindscape: the speed of light. Without intervention, the Mindscape in one star system would differ hugely from the Mindscape in another. Its participants, memories, thoughtcasts, and stored information would all be vastly different. The **Mindjammer fleet** travels constantly throughout the Commonality, updating Mindscape nodes with data gathered on their voyages. This keeps the Mindscape largely synchronised: the Mindscape at one end of Commonality Space may be several years out of step with the Mindscape at the other, but the body of stored information is broadly the same. Personal experience of this lack of Mindscape synchronisation is a relatively new phenomenon, occurring since Rediscovery. When travelling the spacelanes, it's possible to "run ahead" of the ***Mindjammer*** fleet, and discover that the local Mindscape isn't synchronised with your own memories and experiences. This **chronodisplacement** can be disconcerting for those relying on the Mindscape as a backup for their memories and sense of self. For others, it can be liberating, freeing them from the Mindscape's psychological "crutch".

It shouldn't happen regularly, but if the PCs have been travelling rapidly across multiple star systems, chronodisplacement may be an issue. If the PCs don't keep a copy of their exomemories on a personal Mindscape instance, they may end up confused, disoriented, or may receive partially inaccurate or less than helpful information. Also, chronodisplacement means that research the characters perform on distant locations can be wildly out of date.

Mindscape Instances

Normally the Mindscape isn't something you "see" as a physical object. Orbital or system-wide Mindscape relay satellites are unobtrusive, and your Mindscape implant connects you invisibly and automatically. This isn't always the case. Many planets—especially Fringe and Outer Worlds—have no Mindscape access. In such cases, devices are available containing "copies" of the Mindscape, imperfect and out of date to varying degrees, to power Mindscape-related abilities like skill chips, memoplexes, and personal exomemories. These are **Mindscape instances**: fuzzier, less-detailed versions of the Mindscape, still usable and updating themselves automatically whenever in contact with the Mindscape proper. Without a full Mindscape connection, the highest-level Mindscape instance determines technopsi ranges and capabilities. Mindscape instance signals are easily detectable.

PERSONAL MINDSCAPE INSTANCE (PMIs)

The smallest Mindscape instance is the personal Mindscape instance (PMI); see "Equipment" on page 115 for details. These devices can provide access to a character's halo, including skill chips and personal exomemories, and can be used for sensorview with nearby PSAs; but don't contain detailed Mindscape content, including other exomemories. They provide Mindscape connectivity to any Mindscape implant within 10 metres.

STARSHIP OR INSTALLATION MINDSCAPE INSTANCES (SMIs AND IMIs)

Starships like Mindjammers and major orbitals, plateworlds, or other space stations have large-scale Mindscape instances capable of long-term independent operation. They provide Mindscape connectivity to all implants within that superstructure and immediately outside—a maximum of several kilometres (see page 166). They enable all actions **with** the Mindscape, including reasonably detailed exomemory, and local use of actions **in** the Mindscape.

GLOBAL MINDSCAPE INSTANCES

The basic Mindscape required by a Commonality member world, it's at least a single orbital Mindscape node with full sentience, providing Mindscape connectivity to all or part of a planetary surface; the core node is also usually backed up by multiple relay satellites covering the entire world or system. Full Mindscape access is provided; the only difference between a world fully in the Mindscape and one on the Fringe being brought into the network is the frequency of updates from the Mindjammer fleet.

Rapid Action

There's no physical restriction to the speed of action in the Mindscape; in many cases, Mindscape actions take place at the "speed of thought". For overclocked hyperintelligences, this can be very fast indeed—in the order of milliseconds or even nanoseconds.

In rules terms, exchanges in the Mindscape take a few seconds at most, and characters doing things with the Mindscape, like sensorview or mindburn, always act before those who are not. Initiative among characters who are all acting in the Mindscape is determined normally, but actions that just involve Mindscape use occur before any physical actions.

THE MINDSCAPE AT DIFFERENT TECH INDICES

The Commonality Mindscape is a T8+ creation that has evolved over thousands of years. It's the result of carefully developed software and impressive technological advances. However, it's far from unique. When the first starships left the solar system more than 10,000 years ago, humanity already possessed a T7 proto-Mindscape, and almost all colonies took this knowledge with them. When Commonality explorers and operatives visit lower technology worlds which have not yet joined the Commonality, these individuals must often contend with various types of proto-Mindscape. The following is a brief description of the different varieties of Mindscape they may encounter.

The Temple of Universal Mind

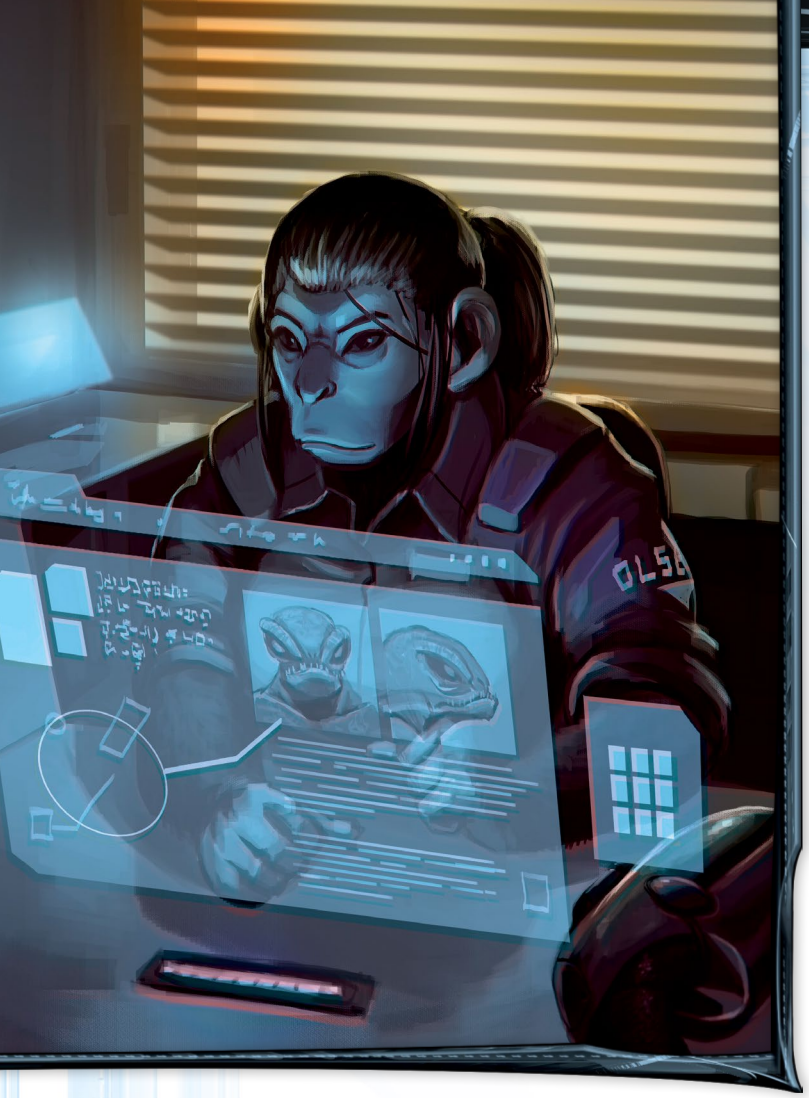
Life in the Commonality blurs the distinctions between life and death, real and artificial, individual and communal—even what it means to be alive and human. Commonality citizens have had millennia to cope with this; Fringe and Outer Worlds, unused to the Mindscape, thanograms, and eidolons, experience profound culture shock. The Commonality handles this with the ***Temple of Universal Mind****: a quasi-religious organisation run by the Communications Instrumentality, it's a rediscovered world's first global Mindscape instance, marking the arrival of Commonality culture. The Temple often limits Mindscape access to external interfaces like terminals, though Commonality citizens can usually access normally. If the world already possesses a proto-Mindscape, the Temple integrates their Mindscape instance with it, providing all of the Mindscape data, but with the standard (for that world) T6 or T7 access methods and protocols. The Temple has occasionally performed the same type of integration for T5 data networks.*

T5: The Data Network in Your Pocket or on Your Glasses

The first crude precursors of the Mindscape are found in most T5 societies. Worlds with this level of technology can't yet create even the simplest Mindscape implants, but many have planetary data networks, and, on most of those worlds, residents carry portable communications and data terminals comparable to 21st century smartphones, or wear augmented reality glasses or contact lenses. These devices provide instant communication and access to the planetary data network, but locating data relies upon typing or voice commands, both of which can be time consuming. Mindscape implants can't interact with this primitive data network without alteration, and even then the result is little better than users having an early 21st century smartphone in their heads.

T6: The Proto-Mindscape

The first brain-computer interfaces become available at T6, and many lost colonies use variations and refinements of the implants available when their expedition left the solar system. These implants, and the proto-Mindscape that supports



them, provide access to standard Mindscape thoughtcasts, sensorview, and direct perception feeds; exomemory, skill chips, memoplexes, and thanograms are not yet possible. Users think or subvocalise natural language questions and receive accurate answers; however, they must interrupt their other activities and concentrate on forming their queries and listening to or reading the answers provided. Users can also attempt remote control with vehicles and devices which are designed for this purpose, but at this tech index the process is clumsy and slow; increase the difficulty of all Interface (remote ops) checks using a T6 proto-Mindscape by one difficulty level (+2).

Other options: At T6, some cultures and individuals prefer wearable proto-Mindscape interfaces like glasses or contact lenses to implants. These devices are light, comfortable, and provide all the same advantages as T6 proto-Mindscape implants. **Cost**: Cr200.

T7: The Improved Proto-Mindscape

By T7, brain-computer interfaces and proto-Mindscape nodes have advanced significantly. Users have access to Mindscape thoughtcasts (again without exomemory), sensorview, and remote control. In addition, data queries effectively occur at the speed of thought, although without the near-sentient performance of the T8+ Mindscape; the T7 proto-Mindscape provides the knowledge directly to the user's mind in synchronous fashion, without the necessity of having to read or listen to anything. Users can also experience some sensory information and limited emotional responses recorded by users. Exomemory, skill chips, memoplexes, thanograms, and full DP feeds are not yet possible, but otherwise using a T7 proto-Mindscape is much like using a standard T8+ Commonality Mindscape.

Other Options: Some cultures and individuals at T7 prefer to avoid implants, usually because of cultural prohibitions, but even the most advanced wearable interfaces can only provide access equivalent to using a T6 proto-Mindscape. Also, some T8+ polities and worlds, such as the Far Havens, distrust the Mindscape, and deliberately choose to use lower-tech T7 proto-Mindscapes. Although implants exist, most residents of these worlds and polities use wearable interfaces.

T8-T9: The Commonality Mindscape

This is the tech level of the Mindscape throughout the Commonality, and on worlds that have extensive contact with the Commonality; it works exactly as described above.

T10+: Visions of the Future

The development of 3-space portals in recent years has begun to enable a revolution in Mindscape relays: the possibility of transmitting Mindscape updates at 3-space speeds via the Far Gate network. Although the number of systems connected by Far Gate is currently extremely limited (there are about 50 systems in total; most sector capitals, and a number of key Core Worlds), and realtime Mindscape transfers between them restricted to top priority instrumentality and pansectorate traffic, in time this appears to promise the end of the Mindjammer fleet and chronodisplacement.

CHAPTER EIGHT
STARSHIPS AND SPACE STATIONS

"System is hot. Fleetwide: repeat, system is hot!" The Commonality mediator sentience flowed seamlessly between the ships of the 113 Rim Sector Fleet, threading through the hysteria and confusion of sudden and active space combat. Coordinating movements, updating sensorview, reassuring crews and strategic sentiences, it relayed the necessary info-minima to the mostly human organics which dealt with hostilities face to face.

Before the Existential Crisis*, an alien warship dropped out of 2-space, its primitive planing engines distorting space-time with churning vortices of z-radiation. The Commonality manowar was ready for them.*

"Venu warhawk, Venu warhawk, I repeat, stand down! You are outgunned and outmanoeuvred. Cut your gravity engines and cease targeting the planetary surface immediately, or we will use annihilating force!"

Silently, with effortless grace, the mediator sentience painted targeting and drive data across the manowar's sensorium. The Existential Crisis *bristled with alarm.*

"Dammit, mediator! Don't these people understand? What—they're firing on us? Do they want to die? This makes no sense...

"All right! Activate the torsion field projectors. Tear that ship out of the sky!"

The starships and other spacefaring constructs of ***Mindjammer*** differ in significant ways from those of standard ***Traveller***: they have different hull systems, drives, weapons and armour, and in many cases they're intelligent beings in their own right. This chapter describes the creation and functioning of space vessels, and provides examples ready for immediate play.

ACQUIRING STARSHIPS

Unlike standard ***Traveller***, you can't actually "buy" starships in ***Mindjammer*** in the strict sense of the word. They're thinking sentient beings—Commonality citizens, with their own rights—so "buying" one would be like purchasing a slave, which is not only illegal within the Commonality and most other polities, but is regarded as abhorrent.

Non-sentient or basic sentience weapons, spacecraft, and vehicles are equipment; eidolon sentiences are either PCs or NPCs, and all starships not produced by the Venu must possess an eidolon sentience. However, you can recruit or hire a starship, have one assigned to your service, or even be assigned to the service of a starship. In ***Traveller*** terms, a starship can even be your patron.

The same is also true for any kind of synthetic being. Arguably, this even goes for sentient weapons. The crux of the matter is whether or not the sentience is also an **eidolon**, or "just" a **basic**. Eidolons are people; basics are gear.

When you need to "acquire" a starship in ***Mindjammer***, you have the following options:

- The ship can be a player character. See page 33 for an example of a starship character.
- You can hire the ship for a period of time or a specific job.
- You can be hired by the ship, in the same way.
- You can sign up with a ship for a period of time or specific job, and agree to split the proceeds. The ship usually takes a double share.

The above means it's actually quite easy to "start with a ship" in ***Mindjammer***—as long as you're not preoccupied with the idea of "owning" it. If the ship isn't a PC, then it's an NPC.

Acquiring a starship during play is very like looking for a job or a patron.

Starships Out on the Fringe

You can't **own** a ship. However, out on the Fringe, something a little like ship mortgages exists, not for ships themselves, of course, but for upgrades. A sentient ship and its comrades might really want a variform hull, some powerful weapons to defend themselves against Venu raiders, or perhaps simply faster engines or an x-core. In the Commonality, such goods are acquired normally, but for many New Traders, such impressive acquisitions can be difficult. However, out on the Fringe, not only is almost everything available for the right price, but you can even get a mortgage. Naturally, the mortgage-holder is the ship, and their collateral are expensive ship systems like planing engines. More than a few unlucky ship sentiences now reside in starships which possess rating-1 gravity engines and planing engines because they could not pay their mortgage and were forced to sell their more advanced systems.

Skipping On Debts

Skipping on debts is irrelevant within the Commonality. However, while mortgages on starships do not exist, mortgages on upgrades to starships do, and out on the Fringe the rules on page 144 of the ***Traveller Core Rulebook*** are used for individuals who attempt to run out on their debts. Commonality citizens who run up large debts on the Fringe and then return to the Commonality to seek to escape these debts discover that Commonality authorities take a dim view of such irresponsible behaviour. As long as the Commonality citizen or citizens willingly entered into these debts without coercion, the Commonality regards these as legitimate debts, and individuals who do not pay may have their RP reduced for a period of time to make good the debt, or even suffer the loss of permanent points of RP or SOC (see **Economic Systems**, page 208).

THE NATURE OF SPACE TRAVEL

Faster-than-light travel is a relatively recent discovery in the Commonality, less than two hundred years old and well within living memory. New discoveries—and new dangers—are being encountered every day, as starships cross the vast distances between stars, and in the Commonality Core the creation of 3-space gates are unlocking an even faster form of travel.

N-Space

Prior to the invention of the **planing engine**, all space travel took place slower-than-light through **n-space**, or normal space-time, mostly within the turbulent gravity wells of solar systems. Travel within star systems still happens this way; piloting through 2-space in a solar system is simply too hazardous due to the sheer amount of physical matter in the volumes to be crossed. Instead, planeships arriving in a system drop into n-space at the **n/2 boundary** (usually the star system's heliopause, which is approximately 18 billion kilometers or 120 AU from sun-like stars) and travel in-system using gravity engines.

2-Space

2-space is why the Commonality exists. It's an otherdimensional phenomenon which allows the warping of n-space using the **planing engine** interstellar drive. Planing permits travel at apparent speeds far in excess of the speed of light, crossing roughly 3 light years per standard day, or 20 light years per week. Planing engines project a **2-space field** or **tachyon distortion field** around a planeship, a protective "bubble" or "torus" which "lifts" the ship from n-space and into 2-space. Operating this field on a planet or within a gravity well is extremely dangerous, damaging the space-time environment and potentially destroying the ship (page 142).

3-Space

3-space is to 2-space as 2-space is to n-space, and promises incredible apparent travel speeds. It's a young science, a discovery of the past few decades, yet already the new 3-Space Instrumentality has inaugurated the **Far Gate Project** to build **3-space gates** on many Core Worlds and sector capitals. There are currently less than fifty in total, allowing practically instantaneous travel, crossing 1 light year in just over 30 seconds, roughly 120 light years per hour. In 3-space, the whole of Commonality Space could be crossed in a little over one standard day! 3-space gates are expensive and delicate,

Scenario Hook: A Tear in Space

The new and highly secretive 3-Space Instrumentality has been established to oversee the Far Gate Project. It's a huge undertaking, opposed by some Custodians because of its strategic risk, but the 3-Space Instrumentality is pushing ahead, in conditions of complete secrecy. Far gates already link the Core Worlds with many sector capital hubs.

The 3SI has had a major accident at a far gate construction site in the Rim Sector, and the whole star system has been quarantined. The PCs are called up under strictest secrecy to enter the system and bring "the situation" under control. But why does it need their special skills? What will they find?

Major Differences From Traveller Space Travel

Space travel in **Mindjammer** *has significant differences from space travel described in the* **Traveller Core Rulebook**. *Spacecraft with gravity engines travel at accelerations many times higher than ordinary* **Traveller** *spacecraft, and 2-space travel has some similarities with* **Traveller** *jump drive, but the speed is a constant 3 light years per standard day, regardless of how good a 2-space drive a ship has, and starships do not require refueling after they complete a jump. Also, rather than simply having to be at least 100 diameters from a planet to safely jump, starships in* **Mindjammer** *must be at a star system's* ***heliopause*** *to do so—roughly 18 billion kilometres (120 AU) in the case of Sol, three times as far as the orbit of the dwarf planet Pluto.*

so roll-out has been slow, but 3-space theoreticians predict these gates will one day even operate on planetary surfaces. Needless to say, 3-space technology is creating a technological revolution in the Commonality, hot on the heels of the 2-space revolution still underway. Many 2-pilots and planeships are concerned: if predictions are correct they could soon find themselves redundant, at least within Commonality Space, and many are increasingly eyeing futures on the still-expanding Frontier.

WHAT IS A STARSHIP?

Technically a starship is any space vessel which travels between the stars. Ships equipped with planing engines are also called **planeships**, while those without are termed **slowships** or **slowboats**. A Commonality starship is an intelligent vehicle. Unlike other vehicles, a Commonality starship requires a conscious sentience to cope with the mind-boggling complexity of 2-space travel, where nanosecond course adjustments are required to avoid collision with sparse yet deadly particles in interstellar space. Human minds can be "overclocked" to pilot through 2-space, but the process is so damaging (as evidenced by the Venu **brainjacks**) that eidolon ship sentiences are always used instead. A starship's **planing engines** are distributed throughout its hull—they have no need to face in a particular direction. The same is true of **gravity engines**, a ship's slower-than-light drives; grav plates and suspensors throughout the superstructure provide thrust in any direction, and protect ship and occupants from the g-forces incurred by rapid acceleration and manoeuvres. A ship receives power from its zero point power plant or **ZIP plant**. This is the only part of a ship which is almost universally placed at the "rear", usually in a section which can be jettisoned at need: degraded or damaged ZIP plants can explode catastrophically. Variform technology means most Commonality starships can reconfigure themselves for different purposes and even moods, from elegant diplomatic curves to intimidating "high-threat" combat configurations. While ship sentiences are distributed throughout a variform hull for redundancy, the **core corpus**—the ship's brain—at the heart of a starship can be protected by stasis field in the event of disaster. Commonality ships are social beings; many delight in company, and provide habitats for crews. Indeed, a ship often considers itself a crewmember, and may have an avatar (page 77) to accompany others off ship. Crew habitats in Commonality ships vary enormously. Variform technology means they can swiftly switch between day and night mode, and provide exotic environments for divergent or alien occupants. Staterooms may be configured for multiple or single occupancy, and spaces switched from crew to passenger use. Since the Venu War, Commonality ships are frequently armed, especially on the Fringe and near the Quarantine Zone (page 335). Null cannon are standard, although there are many alternatives. Vessels may have reinforced hulls and force fields, although most have only basic ray shielding to protect from the hazardous cosmic environment.

Spacecraft Operations

Any rules or details that are not specifically listed as being different in ***Mindjammer*** are identical to those in the **Spacecraft Operations** chapter of the ***Traveller Core Rulebook*** (pages 142-153).

Atmospheric Operations

The rules for streamlined and unstreamlined ships entering planetary atmospheres are the same as in the ***Traveller Core Rulebook***, with two additional options. First, ships with variform hulls can adopt a streamlined configuration any time the pilot or starship sentience requires, and so can manoeuvre in atmospheres and land on planetary surfaces safely. Second, while haze fields or Venu disruptor shields aren't powerful enough to affect the ability of an unstreamlined ship to safely enter an atmosphere, any unstreamlined ship equipped with a repulsor shield (page 165) can safely enter any atmosphere, as long as the shield is operating.

Unstreamlined ships can hover in an atmosphere, but keeping the starship's systems balanced is tricky. Once an hour, the engineer must make a Difficult (10+) Engineer (shields) check (1D minutes, INT) to keep the shields and the ship operating in this environment. Failure means that the ship must leave the atmosphere within the next 1D+2 minutes or it will be forced to land. Unstreamlined ships are not designed to land on any planetary surface with gravity of more than at most 0.1 Gs. Even with an operating repulsor shield, an unstreamlined ship

which lands immediately suffers 4D damage, which ignores any armour (including the repulsor shield).

In addition, any unstreamlined vessel which approaches a planetary surface damages it. The ship's grav fields will not have been properly dampened, and its heat sinks not designed for atmospheric use. As a result, any unstreamlined ship, regardless of whether it is using a repulsor shield or not, which comes within a distance of a planetary surface equal to its hull power squared (a minimum of 1m) does 1DD damage per point of hull power (with a minimum of 1DD) per round to everything on the surface which is directly beneath the ship or within the same distance of the edges of the ship. Starships and other equally large objects only suffer 1D damage per point of hull power.

For example, an unstreamlined 4th power hull may not approach closer than 16m (4 squared) to a planetary surface without doing 4DD damage per round to everything directly beneath the ship and within 16m of its sides.

Power

Most of a starship's power consumption is its 2-space planing drive. Running out of power for other systems is never an issue unless a ship has suffered damage. Also, the power requirements for weapons and drives given in the ***Traveller Core Rulebook*** (pages 143-144) should be replaced with the power consumption rules for the ***Mindjammer*** setting given in the **Power Plants** and **Weapons** entries of the "Starship Design" section (page 158).

Running Costs and Maintenance

This section is unchanged, except that the primary maintenance task that a starship must perform is the periodic overhaul of its ZIP plant once its 2-space engines are nearing or have reached their jump maximum (page 144).

Fuel

T7+ spacecraft and starships do not require regular refuelling; this section is not used in ***Mindjammer*** except for the few T6 spacecraft which may occasionally be encountered.

Handling Spacecraft Maintenance Costs In Different Economies

Spacecraft, including starships, require periodic maintenance, with a cost (listed in the starship description) that the starship and crew must pay to avoid important components failing. How these costs are dealt with under each of the seven economic systems (page 208) is described below:

- ***Barter**: Pay the individuals performing the maintenance in goods and services.*
- ***Confiscation**: The cost depends upon the owner or starship's SOC. If their SOC is 10 or less, then add 50% to the cost. If their SOC is 11+, reduce the cost by 20%.*
- ***Disinterested Resource Allocation**: Pay the cost in RP. The starship and members of the crew can take turns paying RP for maintenance.*
- ***Interested Resource Allocation**: Pay the cost in RP, but reduce the cost by 25% when paid by individuals with SOC 11+, and increase it by 50% when paid by individuals with SOC 10 or less. The starship and members of the crew can take turns paying RP for maintenance.*
- ***Unregulated Money Economy**: Pay the maintenance costs in cash.*
- ***Regulated Money Economy**: Pay the maintenance costs in cash, but with a 10% tax.*
- ***Planned Economy**: If the starship is necessary to the profession and livelihood of the individual paying this cost or the starship is employed by the government, subtract Cr10000 from the maintenance cost (to a minimum of Cr0). If the starship is used for entertainment purposes or cannot document that it is necessary for the user's profession (which is often true for spacecraft used for illegal endeavours), impose a 50% tax.*

PLANING ENGINE JUMPS

This section replaces the section on **Jump Travel** in the ***Traveller Core Rulebook***. Navigating through 2-space requires a **planing check** (see below), the difficulty of which increases based on the size of the starship and the distance travelled: see Table 8-1: Planing Distance DMs (page 143). 2-space travel is harder the further you go, and larger ships are more difficult to navigate through its hazards than smaller ones.

The Astrogation check to prepare for a 2-space jump is identical to the Astrogation check in the ***Traveller Core Rulebook*** (page 148), except that the jump distance in light years is divided by ten (round up) before it is used as a DM. Starships can enter 2-space without first making an Astrogation check. Doing so is a risky manoeuvre known as a blind jump and imposes a Bane on the planing check.

- *Make an Astrogation Check:* Easy (4+) Astrogation check (1D x 10 minutes, EDU), modified by: using a Mindjammer Route (positive DM, see page 144); the jump distance in light years/10 (negative DM, round up) (a jump of 33 light years gives a DM-4 to the check). See "Planing and Astrogation Check Modifiers" below).

The power available from the ZIP plant means that diverting

power is not required, and as a result no Engineering check is required to enter 2-space. Instead, the ship sentience or other pilot must make the following check.

- *Make a Planing Check:* Easy (4+), Pilot check (1D x 10 minutes, INT or EDU), modified by: the planing engine rating of the vessel (positive DM); the hull power of the vessel/2 (negative DM, round down); and the jump distance in light years/10 (negative DM, round up); other DMs (see "Planing and Astrogation Check Modifiers" below).

If the planing check succeeds, the ship safely arrives at the n/2 boundary of the destination star system (usually its heliopause—see page 247). If the planing check succeeds with an effect of 3 or more, see "Very Successful Planing Checks" (page 145). If the planing check fails, see "Failed Planing Checks" below (page 145).

Planing and Astrogation Check Modifiers

The following are some of the most common modifiers to planing and astrogation checks.

DISTANCE

The longer a journey through 2-space is, the greater the difficulty; divide the distance travelled in light years by 10 to determine the negative DM applied to the planing check. See Table 8-1: Planing Distance DMs. This same negative DM is also applied to the Astrogation check.

JUMP MAXIMUM EXCEEDED

If a starship exceeds its **jump maximum** (see below), the planing check suffers a DM-2. Each subsequent jump after this, but before the ZIP power plant is overhauled, suffers an additional, cumulative DM-2.

LOCATION

Entering 2-space in a location that is significantly affected by the gravity of a star or planet is exceptionally dangerous. Entering 2-space out past a star's heliopause, where the star's stellar wind is stopped by the interstellar medium, is safe, and ships that jump at this distance or further suffer no negative modifiers.

The heliopause of a sun-like star is 18 billion kilometres (120 AU) from the star. Entering 2-space from a location closer to a star than its heliopause imposes a DM-4 on the planing check; doing so closer than 1.5 billion kilometres (10 AU) from a star or 30 million kilometres (0.2 AU) from a planet imposes a DM-8.

In addition, entering 2-space within a star's heliopause creates an enormous burst of z-radiation (page 153), exposing everything within 10 kilometres of the ship to a number of rads of z-radiation equal to 2D x (hull power x 20). So, a 3rd power hull (1000-9500 tons, see page 158) would bathe the entire region in a burst of 2D x 60 rads of z-radiation. Activating a planing engine inside a star's heliopause is illegal throughout the Commonality, and is punishable by confiscation of the vessel and re-education of the offenders, including the starship sentience.

Except on the exceedingly rare and almost universally fatal occasions when starships emerge in deep space, all starships emerge from 2-space at a star's heliopause. There is no record of any 2-space jumps where the ship emerged closer to a star than its n/2 boundary, and all attempts to do so fail.

Table 8-1: Planing Distance DMs

Maximum Distance (LY)	<1	3	10	20	30	40	50	60	70	80
DM	DM+1	0	DM-1	DM-2	DM-3	DM-4	DM-5	DM-6	DM-7	DM-8
Jump Duration	2D hours	1 day	3 days	7 days	10 days	13 days	17 days	20 days	23 days	26 days

MINDJAMMER ROUTES

Mindjammers travel to all Commonality worlds, but most visit particularly important or usefully located worlds first, and then travel to neighbouring worlds. The primary Mindjammer routes are easier to navigate, both because that's why they were chosen and also because the Mindscape contains more reliable, up-to-date astrographical data on these routes. Using a Mindjammer route grants a DM+2 to Astrogation checks, but routes between two relatively unimportant worlds involve, at minimum, travelling from one of these worlds to a more important world, and then further on to the destination.

PILOT ASSISTANCE

Except among the Venu, planing checks are always made by the starship sentience. However, a human pilot can link with the starship sentience via Mindscape and assist with the jump; this is handled as a standard task chain.

PLANING ENGINES RATING

The rating of a ship's planing engines (page 161) provides a positive DM to planing checks equal to that rating. For example, a rating-3 planing engine provides a DM+3 to planing checks.

SIZE

The larger a ship is, the more difficult it is for that ship to safely travel through 2-space. Starships have a negative DM based on the hull power (see page 158) divided by 2 (round down). A zero or 1st power hull (1-95 tons) would have no DM, while a 2nd or 3rd power hull (100-9500 tons) would have a DM-1.

The Jump Maximum

Starships may not make planing jumps indefinitely; their ZIP plant capacitors undergo a z-radiation build-up which makes them increasingly unreliable and indeed dangerous. Expert pilots and high quality planing engines can mitigate this, but eventually a vessel's planing engines must be taken offline for overhaul, often requiring a week or more. A ship's jump maximum is expressed in light years; it's the total distance the ship may travel between overhauls, and is based on the power of the ship's planing engines (the planing drive's rating). See Table 8-2: Planing Engine Jump Maxima.

Once a starship has travelled a number of light years equal to its jump maximum, its planing engines must be overhauled. This process is simple and relatively rapid if the ship is docked at a starport of Class C or higher (see "Starports", page 276) on a T8+ world on the Fringe or at any Class C or better port within the Commonality. Access to port maintenance facilities is included in docking fees.

- *Overhaul a Ship's Planing Engines at a Starport:* Routine (6+), Engineer (planing engines) check (1D x 10 hours, INT or EDU).

Overhaul is also possible in n-space without starport facilities, but is more difficult and time consuming. Planing engines can't be overhauled in 2-space.

- *Overhaul a Ship's Planing Engines in N-Space:* Routine (8+), Engineer (planing engines) check (1D+3 days, INT).

Table 8-2: Planing Engine Jump Maxima

Planing Engines Rating	1	2	3	4	5	6
Jump Maximum (LY)	40	60	80	100	120	140

A marginal or average failure on either check results in a failed attempt that can be attempted again without penalty. An exceptional failure means that the ZIP plant begins leaking z-radiation, exposing everyone within 10m to 2D rads of z-radiation/hour. The leak ceases as soon as the engineer makes a successful overhaul check.

Engineers can also overhaul a ship's planing engines after every jump which is less than the ship's jump maximum. This is known as a maintenance overhaul.

- *Conduct a Maintenance Overhaul of a Ship's Planing Engines at a Starport:* Easy (4+), Engineer (planing engines) check (1D x 4 hours, INT or EDU).

This can also be done in n-space.

- *Conduct a Maintenance Overhaul of a Ship's Planing Engines in N-Space:* Routine (6+), Engineer (planing engines) check (1D x 10 hours, INT).

PUSHING THE JUMP MAXIMUM

An engineer can also attempt to tweak a ship's planing engines to allow it to jump again without risk, when doing so will take it over its jump maximum. This may even be used by a ship which is already beyond its jump maximum.

- *Push the Jump Maximum:* Difficult (10+), Engineer (planing engines) check (1D hours, INT).

Success on this check means that the ship can make one additional 2-space jump with a total distance of less than the starship's jump maximum. After this jump, the engineer can attempt to push the starship's jump maximum again, but the difficulty of each attempt increases by one difficulty level (ie by +2). A marginal failure on any of these checks means that the attempt failed, but the engineer can try again at a DM-2. An average failure means that the attempt failed and the planing engines can't be safely used until overhauled. An exceptional failure means that the power plant releases a burst of z-radiation, exposing everyone within 10m to 2D x 5 rads of z-radiation (page 153). Overhauling planing engines which have exceeded their jump maximum incurs an additional DM-2 on the check.

Catastrophic Misjumps and the Pulse Dragon Phenomenon

Planeships always make certain to drop out of 2-space no more than approximately 60000 AU (1 light year) from a star—the distance to the system's Oort cloud (the exact distance varies by star system). Ships that emerge from 2-space further away or in the depths of interstellar space are never heard from again.

Theories differ as to the reasons for their destruction, but what is known is that emerging from 2-space too far from a significant gravity well (one produced by a body at least as massive as a large brown dwarf) are soon destroyed by what is referred to as the ***Pulse Dragon Phenomenon****. The few emergency transmissions from these doomed vessels suggests that such ships were destroyed by vast interstellar energy fields or perhaps even exotic life forms, dubbed* ***Pulse Dragons****. Despite the Commonality's best efforts, the true nature of the Pulse Dragon Phenomenon currently remains unknown.*

The Venu Dirt Drive and Far Havens Planing Engines

The Venu "dirt drive"—its version of the planing engine—is considerably more dangerous and outright unstable than Commonality planing technology, partly because it's been reverse engineered by a much lower TI culture (the Venu are T7, and planing engines are T9), but also because, instead of being operated by a ship sentience, it's controlled by the cortex of a human pilot (albeit a heavily mutated one) plugged directly into it via a ***brainjack*** *couch. All planing checks with Venu dirt drives incur a DM-4, and any failure requires the brainjack pilot to roll on Table 3-105: Mindburn (page 75), in addition to the misjump results listed below. Few brainjacks remain sane for more than a few jumps.*

The Far Havens' "duopoly" pairs a human pilot with a heavily restricted synthetic navigator for interstellar travel, a combination which is considerably less capable than a Commonality ship sentience: the Far Havens are T8. All planing checks by Far Havens duopolies incur a DM-2; however, beyond this penalty the Far Havens planing engine suffers no other problems, and operates identically to the Commonality version (which it's basically a copy of).

Very Successful Planing Checks

If a planing check succeeds with 3 or more Effect, only count half of the jump distance against the vessel's jump maximum. For example, if the ship sentience makes a planing check with 3 Effect on a 30 light year jump, only 15 light years are counted against the ship's jump maximum. If the planing check succeeds with 6 or more Effect (an Exceptional Success), then the entire jump is not counted against the starship's jump maximum.

Failed Planing Checks

Failed planing checks result in a misjump of varying degrees of severity, depending on the Effect of the failure of the

Table 8-3: Effects of Planing Check Failure	
Effect	**Misjump Result**
-1	The ship suffers from a **relativity error.** Roll 1D: 1-3 = the ship arrives in the target system 1D days later than normal, but no extra time has passed for the crew; 4-6 = the ship spends an extra 1D days in 2-space, but the ship arrives on exactly the day it was predicted to, and to an outside observer seems to have spent no extra time in 2-space.
-2	There is no relativity error, but the ship arrives in the target system 1D x 18 billion km further from the system primary than expected.
-3	The ship sentience suffers mindburn due to intense difficulties encountered in avoiding 2-space hazards, and must roll on Table 3-105: Mindburn (page 75). If an assisting 2-pilot is in Mindscape contact with the ship sentience and attempting to aid the planing check, then the 2-pilot may attempt a Difficult (10+) Pilot check (instant, INT) to disconnect from the ship sentience: success means the 2-pilot avoids harm, but failure means he must also roll on Table 3-105: Mindburn. The ship also finds itself 1D x 18 billion km further from the system primary than expected.
-4	The ship sentience suffers mindburn as above, and also misjumps. It arrives 3D x 3 light years from its destination, in a random direction; it always arrives in a star system, although perhaps not a friendly or even inhabited one, and often in one of the many stellar body systems which are not marked on standard star charts. If there isn't a mapped system in the approximate location indicated by the 3D roll, the referee should roll for a new stellar body system using the guidelines for creating stellar bodies and star systems in **Chapter 12: Stellar Bodies and Star Systems.**
-5 or lower	The ship misjumps as described above, and its ZIP plant also begins leaking z-radiation, exposing everyone within 10m of the power plant to 2D rads of z-radiation/hour. This radiation leak ceases as soon as the engineer makes a successful overhaul check (page 144).
-2, jump maximum exceeded*	The misjump effects listed above occur, **plus** the ZIP power plant begins leaking z-radiation, exposing everyone within 10m of the power plant to 2D rads of z-radiation/20 minutes. This radiation leak ceases as soon as the engineer makes a successful overhaul check (page 144).
**The ship has exceeded its jump maximum without the engineer having previously made a successful check to Push the Jump Maximum (page 145).*	

planing check; see Table 8-3: Effects of Planing Check Failure. ***Mindjammer*** misjumps are different from those on page 149 of the ***Traveller Core Rulebook***.

3-Space Travel

Currently, 3-space travel is rare and almost entirely confined to the Core Worlds. 3-space travel is simpler and safer than 2-space travel, and much faster—at least once the **3-space gate** has been constructed. 3-space gates are enormous circular structures, more than a kilometre in diameter, which can connect with any other 3-space gate. Ships passing through a 3-space gate travel between gates at an apparent speed of 120 light years **per hour,** emerging into n-space from the destination gate upon arrival. They do not need planing engines, have no jump maxima, and cannot misjump, unless something catastrophic happens to their destination gate once the 3-space jump is underway.

The secretive **3-Space Instrumentality** is currently working hard on the ambitious **Far Gate Project**, and has constructed gates connecting many Commonality sector capitals. 3-space gates do not need to be located beyond a star system's heliopause; the Manhome Gate in humanity's original solar system, known as Fargate-1, is situated between Jupiter and the asteroid belt, a matter of hours in n-space from Old Earth. As 3-space gates may only connect with one destination gate at a time, scheduling is the main restriction with 3-space travel, and the traffic queues at Fargate-1 are legendary, as the gate cycles through its connections to destination gates throughout the Commonality. Waiting times are rarely more than a few days, however, unless interrupted by official emergencies.

The fact that 3-space gateways enable immediate and massive disaster relief and rapid military response is almost as important as the fact that they enable near-realtime Mindscape updates. However, for now, most of the Commonality and the Fringe makes do with 2-space travel.

Passengers

The sections on High Passage, Middle Passage, and Working Passage are unchanged from the ***Traveller Core Rulebook***. Basic passage is a rare occurrence which is most common in vessels transporting refugees, but the rules are otherwise identical. Low passage in the ***Mindjammer*** setting is very different: stasis berths are safe, and effectively stop time for

users, so there are no risks of using them, and there is no low lottery. The costs of all forms of passage also differ: see "The Economics of Interstellar Trade" (page 205) for more.

Remote Operations

Drones are used extensively in ***Mindjammer***. T9+ starships are automatically assumed to have repair drones, and may use other drones as well. Drone operations are conducted using the Interface (remote ops) skill.

Repairs

The rules for repairs are unchanged, except that ships with variform hulls automatically repair lost hull points at a rate of 1 point/hour, when the variform hull is not performing other transformations. In addition, a makepoint workshop (page 166) removes the requirement for using spare parts when performing critical hit repairs, since makepoint workshops can create any necessary spare parts.

Sensors

All sensor types from the ***Traveller Core Rulebook*** are available, but some have been altered to better fit the ***Mindjammer*** setting, and several new variaties of sensor are described below.

Revised Sensor Types

The hyper-advanced technology of the Commonality changes the types of sensor available, as described below.

INFRAWAVE SENSORS

Traveller lidar sensors are replaced by a suite of sensors known as **infrawave**, which generally group together sensors focussing on the shorter wavelengths of the electromagnetic spectrum. At lower TIs these include lidar, but also extend to more advanced sensor technologies employing visible light, ultraviolet light, and x-rays.

ULTRAWAVE SENSORS

Traveller radar sensors are replaced by a suite of sensors known as **ultrawave**, grouping sensors focussing on the longer wavelengths. At lower TIs these include radar, but also extend to technologies employing infrared radiation, terahertz waves, microwaves, and radio waves.

EMISSION SENSORS

Traveller EM sensors are replaced by a suite of sensors known as **emission sensors**, which are a relatively lower TI method of detecting and analysing emissions of a non-electromagnetic nature.

Using Active Sensing

Most sensors can be used two ways: passively, where sensors merely detect emissions emanating from elsewhere; and actively, where sensor suites first emit their own energy pulses in order to detect how those pulses interact with the surrounding environment. The target numbers of Interface (sensors) checks suffer a DM-2 when using only passive sensing; however, active sensors also make you instantly visible to all starship-scale sensors within several million km. Commonality contact protocols require that only passive sensing should be used upon arrival in a star system, until you've ascertained the system is either uninhabited or inhabited by a contacted and friendly civilisation. Usually ships rapidly pick up Mindscape relay chatter before contacting available relays by tightbeam—an active sensor transmission.

New Sensor Types

The following sensor types are specific to the ***Mindjammer*** setting. See Table 8-4: New Sensor Targets for ranging details.

GRAVITY WAVE SCANNER (T8)

At T8, sensor suites are able to detect operational gravity engines, suspensors, and gravitic anomalies, and are also able to create gravity maps of planets and asteroids.

Table 8-4: New Sensor Targets

Range	Gravity Wave	Membrane Proximity	Quantum Substrate	Tachyon	Transbaryonic	ZIP Field
Adjacent	Full	Full	Full	Full	Full	Full
Close	Full	Full	Full	Full	Full	Full
Short	Full	Full	Full	Full	Full	Full
Medium	Full	Full	Full	Full	Full	Limited
Long	Limited	Full	Full	Full	Full	Minimal
Very Long	Limited	Full	Limited	Full	Full	Minimal
Distant (50,000 to 300,000km)	Limited	Full	Limited	Full	Full	Drastic[1]
Very Distant (300,000 to 5 million km)	Minimal	Minimal	Limited	Full	Limited	None
1 AU (150 million km)	None	Minimal	Minimal	Full	Limited	None
500 AU	None	None	None	Full	None	None

[1] ***Drastic**: Sensor only detects strong z-radiation bursts, such as those produced by exploding ZIP plants, problematic 2-space entries, or rare and powerful natural phenomena.*

MEMBRANE PROXIMITY SENSOR (T10)

Cutting edge Commonality sensor suites are now able to detect variations in fundamental interactions arising from dimensional / membrane proximity, or disturbances of the same, including interactions with 3-space. Recent astrographical surveys have found whole new areas of detail on Commonality star maps, particularly associated with certain classes of stellar body and astronomical phenomena.

QUANTUM SUBSTRATE SCANNER (T9)

Standard Commonality sensors routinely detect fluctuations in the space-time fabric, including the more efficient detection of vessels using gravity and planing engines. Scanners also analyse time dilation, and some of the epiphenomena associated with consciousness and the persistence of identity. Quantum substrate scanners effectively duplicate the functions of gravity wave scanners, and eventually replace them.

TACHYON SENSOR (T9)

Tachyon sensors (also known as **jump wake detectors**) detect vessels entering or leaving 2-space or 3-space. They have a range of 500 AU (75 billion km, or just over 69 light hours). Note that time lag over such distances applies, and the further away the jump wake is, the more time after it occurs will be required to detect it.

TRANSBARYONIC SENSOR ARRAY (T9)

Transbaryonic sensing has been a focus of sensor tech advances for centuries, and the same holds true today. Sensor suites detect and analyse the topography of the many forms of non-baryonic matter which make up the cosmos and which aren't susceptible to conventional scans, as well as being able to detect all forms of fields (like haze fields). Every year seems to bring new enhancements and discoveries in the transbaryonic fields, much of it led by Commonality hyperintelligences.

Table 8-5: Revised Sensor Targets

Range	Visual	Thermal	Emission	Active Infrawave and Ultrawave	Passive Infrawave and Ultrawave	Densitometer
Distant (50,000 to 300,000 km)	Minimal	Minimal	None	None	Minimal or Other Active Uses[2]	None
Very Distant (300,000 to 5 million km)	Minimal	Minimal	None	None	Minimal or Other Active Uses[2]	None
500 AU	Drastic[1]	Drastic[1]	None	None	Drastic[1]	None

[1] ***Drastic**: The sensors can only pick up extreme events like explosions, the use of powerful reaction drives (typically fusion or plasma drives), space battles, or other events that produce large amounts of light and heat.*
[2] ***Other Active Uses**: At these ranges, these sensors can only detect other vehicles if those vessels are currently using active sensors.*

Table 8-6: Sensor Detail For New Sensors

Detail	Gravity Wave	Membrane Proximity	Quantum Substrate	Tachyon	Transbaryonic[1]	ZIP Field
Full	Precise details of power and location of gravity engines and suspensors, gravitationally map planets and asteroids, detect strong gravitational anomalies like black holes.	Detect and reveal details about all gravitational anomalies, dimensional anomalies, 3-space gates, and entries or departures from 2-space. Detect planing engines warming up and preparing to jump to 2-space.	Precise details of power and location of gravity engines and suspensors, gravitationally map planets and asteroids, detect and reveal details about all gravitational anomalies, detect dimensional anomalies. Detect and differentiate between presence of natural or synthetic (eidolon and basic) sentiences.	Detect the presence, approximate size, and number of any ships entering or leaving 2-space or 3-space.	Direct detection and analysis of phenomena relating to baryonic dark matter, hot and cold non-baryonic matter, dark matter stars, electroweak stars, the interstellar medium, etc, permitting detailed estimates of mass and trajectory, permitting improved astrogation checks and weapons targeting. Detect personal and vehicle fields. Other applications include some that are currently anecdotal, including naturally occurring 3-space rifts.	Details of ZIP plant and ZIP cell power and location, presence of inactive ZIP plants, detailed information on z-radiation leaks.
Limited	Approximate power and location of gravity engines, gravitationally map planets and asteroids, detect strong gravitational anomalies like black holes.	n/a	Approximate power and location of gravity engines, gravitationally map planets and asteroids, detect all gravitational anomalies, detect dimensional anomalies. Detect presence of sentiences.	n/a	Direct detection of phenomena relating to baryonic dark matter, hot and cold non-baryonic matter, and so on. Detect vehicle fields. May permit improved astrogation checks. Other applications are available.	Approximate power and location of any active ZIP plants or ZIP cells, approximate information on z-radiation leaks.
Minimal	Gravitationally map planets and asteroids, detect strong gravitational anomalies like black holes.	Detect serious distortions in the dimensional membrane, like black holes, dimensional anomalies, large (at least 1 km in diameter) working 3-space gates, or planing engines activated inside a star's heliopause.	Detect all gravitational anomalies and dimensional anomalies.	n/a	n/a	Presence and rough location of active ZIP plants and z-radiation.
None	No information provided by the sensor.					

[1] *Transbaryonic phenomena are poorly understood by 21st century science; descriptions are approximate at best (and perhaps wildly incorrect).*

ZIP FIELD SCANNER (T8)

ZIP field scanners detect and locate operational ZIP cells and ZIP plants by their emissions, as well as detecting z-radiation.

In addition, some sensor types described in the ***Traveller Core Rulebook*** have increased ranges in ***Mindjammer***, as given in Table 8-5: Revised Sensor Targets.

SHIP COMPUTERS AND SHIP SOFTWARE

These sections do not apply to ***Mindjammer***. Use the rules for basic sentiences and ship (eidolon) sentiences (page 141) instead.

Time Dilation

Gravity engine travel can cause time dilation close to the speed of light. This usually warrants little more than passing mention; Commonality citizens are used to relativistic effects, and time dilation in solar systems is rarely more than a few seconds or minutes. When a ship travels greater distances, such as to the n/2 boundary, for example, time dilation can be significant. Table 8-7: Gravity Engine Travel Times gives approximate times experienced by those travelling close to light speed.

SPACECRAFT SECURITY

All Commonality spacecraft incorporate starship Mindscape instances, and Mindscape access is integral to their operation. The ship sentience is always treated as a **dirigeant** for the Mindscape instance, and they can authorise other ship personnel to also act as dirigeants. These dirigeants can attempt to revoke any would-be hijacker's Mindscape access (page 133), preventing the hijacker from doing anything more than operating the basic systems available to all passengers. In addition, on a starship, the ship sentience has a large degree of control of the ship's systems, and cannot be disconnected from them by anyone except a skilled Mindscape hacker with a special ops/black chip who manages to revoke the ship sentience's Mindscape access (DM-2).

Disconnecting a ship sentience from its Mindscape instance in this way can only be safely performed in n-space. A ship sentience is required to continually operate a vessel's planing engines when in 2-space, and disconnecting it will **at minimum** cause a serious misjump, and is likely to destroy the ship. If this happens, and the referee does not wish to destroy the ship and all the characters aboard, she should have the ship misjump and arrive at a star system seriously damaged, possibly with the power plant leaking z-radiation, or even destroyed and with the ship sentience and characters in stasis boats.

Commonality starships also contain a wealth of internal sensors, permitting incredibly detailed observation of the entire interior of the starship and its occupants. Privacy concerns mean passengers and crew can "invoke privacy" to prevent others from casually observing their cabins or even their current locations, but "privacy" doesn't apply to ship sentience monitoring of systems and vital signs, and in any case is automatically overridden in the case of emergency, and can be circumvented by skilled Mindscape hackers (page 135). In addition, all locks on a starship count as intelligent locks, and the only way to open them without authorisation is via Mindscape hacking, using remote control technopsi (page 132).

Other forms of unauthorised Mindscape access are also possible on starships, assuming a hacker can avoid the attentions of sentinels and the ship sentience. Hackers may attempt to smuggle weapons on board, and even take hostages, perhaps even using heavy weapons to hold the ship sentience hostage.

Security Systems

Any crew member (including the ship sentience) possessing a special ops/black chip may target known or suspected hijackers with Mindscape attacks or intrusions. Additionally, many starships also incorporate security systems such as those described on page 152 of the ***Traveller Core Rulebook***. These are common on military and diplomatic starships, and on trading vessels which regularly visit the Fringe.

TRAVEL TIMES

Travel times in ***Mindjammer*** differ from the ***Traveller Core Rulebook***, as gravity engines employ much higher acceleration than manoeuvre drives. Use Table 8-7: Gravity Engine

Table 8-7: Gravity Engine Travel Times						
Distance (km)	**100G**	**400G**	**900G**	**1600G**	**2500G**	**3600G**
1,000	63 seconds	31 seconds	21 seconds	16 seconds	13 seconds	11 seconds
10,000	200 seconds	50 seconds	67 seconds	50 seconds	40 seconds	33 seconds
100,000	10.5 minutes	5.5 minutes	3.5 minutes	2.6 minutes	2.1 minutes	105 seconds
300,000 (1 light second)	18 minutes	9 minutes	6 minutes	4.5 minutes	3.6 minutes	3 minutes
400,000	21 minutes	10.5 minutes	7 minutes	5 minutes	4 minutes	3.5 minutes
1,000,000	33 minutes	16.5 minutes	11 minutes	8.2 minutes	6.6 minutes	5.5 minutes
5,000,000	74 minutes	37 minutes	25 minutes	18.5 minutes	15 minutes	12.4 minutes
10,000,000	105 minutes	52.5 minutes	35 minutes	26 minutes	21 minutes	17.5 minutes
30,000,000	3 hours	1.5 hours	1 hour	45 minutes	36.5 minutes	30.4 minutes
45,000,000	3.7 hours	1.8 hours	1.2 hours	55 minutes	44 minutes	37.3 minutes
100,000,000	5.5 hours	2.7 hours	1.8 hours	1.4 hours	1.1 hours	55 minutes
150,000,000 (1 AU)	6.8 hours	3.4 hours	2.2 hours	1.7 hours	1.4 hours	1.1 hours
255,000,000	8.8 hours	4.4 hours	2.9 hours	2.2 hours	1.8 hours	1.5 hours
600,000,000	13.6 hours	6.8 hours	4.5 hours	3.4 hours	2.7 hours	2.3 hours
900,000,000	16.6 hours	8.3 hours	5.5 hours	4.2 hours	3.3 hours	2.8 hours
1,000,000,000	17.5 hours	8.8 hours	3.7 days	5.8 hours	3.5 hours	2.9 hours
18,000,000,000	74.5 hours	33.5 hours	26.1 hours	22 hours	20 hours	19 hours
18,000,000,000 (subjective)[1]	72.7 hours	33.5 hours	18.5 hours	11.6 hours	7.8 hours	4.7 hours
18,000,000,000 [2]	52.7 hours	27.28 hours	21.4 hours	19.3 hours	18.4 hours	17.8 hours
18,000,000,000 [2] (subjective)[1]	50 hours	20.6 hours	11.3 hours	7.5 hours	5.1 hours	2.7 hours

[1] Subjective time is the time experienced by occupants of the ship. Less time appears to pass because of the effects of relativistic time dilation.
[2] This is the time required to accelerate to this location without decelerating. Some starships accelerate to the N/2 boundary, travel to their destination in 2-space, and then decelerate to their destination when they emerge from 2-space.

Travel Times to determine in-system travel times. Note, however, that ***Mindjammer*** starships also need to travel further in n-space; to safely enter or leave 2-space, a starship travel to the star's heliopause, which is 18 billion kilometres (120 AU) from a star such as Sol.

ENCOUNTERS IN SPACE

This section describes the encounters characters may have in space. Starships regularly encounter other spacecraft or starships in inhabited systems. Most natural hazards are clearly marked in inhabited systems, but this isn't the case in uninhabited ones. If you fail an Interface (sensors) check to detect a natural hazard, you may fall victim to it if you haven't already.

Space Encounters

If you want a truly random space encounter, roll on the space encounters table on page 146 of the ***Traveller Core Rulebook***, modifying the results according to Table 8-8: Modified Space Encounters. This table is most appropriate when the characters are within the Commonality, but outside of the Core Worlds.

Star System Events

Alternatively, you can choose to roll on Table 8-9: Star System Events, based on whether you're in an inhabited or uninhabited star system. In addition to encountering spacecraft and other structures in space, starships can also encounter unusual and often dangerous natural phenomena. No modifiers are applied to these rolls. Typically, referees roll 1D per day with an event occurring on a 6.

ASTROPHYSICAL MASER

This unusual phenomenon is a naturally occurring microwave laser (maser) arising spontaneously in molecular clouds, planetary or stellar atmospheres, or other space conditions, especially in areas of star formation. Many are

Table 8-8: Modified Space Encounters

Roll D66	Encounter in Mindjammer
12 and 34	Roll 1D: 1-5 = Derelict Vessel (possible salvage); 6 = millennia-old slowship, perhaps with passengers and crew still in stasis.
22 and 73	New Traders, often in a *Profit*-class New Trader (page 176).
24	Roll 1D: 1-5 = Hostile Vessel, typically Venu or allied with the Venu; 6 = Space Battle.
34	Merchant Vessel.
36	Stasis pod (which could be more than a century old).
44	Scouting vessel, usually an *Icarus*-class Scout or a *Botany Bay*-class Stage 2 Explorer.
46	A Mindjammer carrying Mindscape updates.
51	A Mindjammer carrying Mindscape updates.
54	A Mindjammer carrying Mindscape updates.
56	A Mindjammer carrying Mindscape updates.
62	Diplomatic ship on a diplomatic mission.
83 and 84	Roll 1D: 1-4 = Orbital Habitat; 5-6 = Plateworld (Core Worlds only).
85	Orbital Mindscape Node.
95	System Patrol Boat.
96	Space Force capital ship like the *Nautilus*-class Manowar.

Table 8-9: Star System Events

2D	Uninhabited System	Inhabited System
2	Astrophysical Maser	Z-Radiation Source
3	Unusual Event (Roll 1D: 1-3 = Ore Bearing Asteroid (possible mining); 4-5 = Derelict (possible salvage); 6 = Z-Radiation Source)	Unusual Event (Roll 1D: 1-3 = Ore Bearing Asteroid (possible mining); 4-5 = Derelict (possible salvage); 6 = Z-Radiation Source)
4	Gravitational Anomaly	Gravitational Anomaly
5	Impact Hazard	Impact Hazard
6	Radiation Source	Radiation Source
7	Radiation Source	Radiation Source
8	Radiation Source	Starship Encounter
9	Impact Hazard	Starship Encounter
10	Starship Encounter	Starship Encounter
11	Unusual Event (Roll 1D: 1-4 = Ore Bearing Asteroid (possible mining); 5 = Derelict (possible salvage); 6 = Dimensional Anomaly)	Unusual Event (Roll 1D: 1-4 = Ore Bearing Asteroid (possible mining); 5 = Derelict (possible salvage); 6 = Dimensional Anomaly)
12	Gravitational Anomaly	Astrophysical Maser

invisible, or mostly so, but they can be powerful enough to fry a ship's systems. Treat this phenomenon as an ion weapon doing 2DD of damage (see ***High Guard***, page 26 for information on the Ion Weapon trait). Unlike ordinary ion cannon, the damage from an astrophysical maser continues to affect the starship for 1D hours, but a Formidable (14+) Engineer (power) check (1D x 10 minutes) can restore power to the affected systems if successful.

DERELICT

You encounter a derelict spacecraft or starship. Decide upon the type of ship and then roll on or choose from the Salvage table (***Traveller Core Rulebook***, page 147).

DIMENSIONAL ANOMALY

Dimensional anomalies are "holes" in the fabric of space-time, potentially leading to other dimensions, parallel universes, or even different points in time. However, they're also fantastically dangerous; investigating closely or approaching one places you at great risk. Make a Very Difficult (12+) Pilot check to avoid tidal stresses which cause the ship 5D damage; success means you can gather detailed data on the anomaly, or even attempt to pass through it.

GRAVITATIONAL ANOMALY

You encounter a powerful and unexpected gravitational source, which could be anything from a quantum black hole, a large

body made of dark matter, or a fragment from a neutron star. The pilot or ship sentience must make an Average (8+) Pilot check to avoid tidal stresses which cause the ship 2D damage. Increase this damage to 4D for ships which are 5,000 tons or larger.

IMPACT HAZARD

You encounter a cloud of small- to moderate-sized debris which is moderately dense, which could be anything from a planetary ring, a shattered comet or asteroid, to debris from a destroyed starship. Regardless of the source, the pilot or ship sentience must make a Difficult (10+) Pilot check to avoid striking at least one object, causing the ship 1D damage.

ORE-BEARING ASTEROID

You detect an ore-bearing asteroid. Roll on the Asteroid Mining Table (***Traveller Core Rulebook***, page 147). You may perform the mining yourself or sell the information to a corporacy (see **Information Trading**, page 207).

RADIATION SOURCE

You encounter a powerful source of radiation, which could be a stellar flare or coronal mass ejection, powerful radiation belts of a nearby gas giant, x-ray bursts from matter falling into a black hole, a supernova wave front, or radiation beams from a pulsar. Roll 1D: 1-5 = 1D x 100 rads/hour; 6 = 3D x 100 rads/hour.

SPACE BATTLE

You encounter an ongoing space battle. Most often these are between the Venu or their allies and a Commonality ship, between pirates and a merchant ship or system patrol boat, or between blockade runners and a system patrol boat. This battle could involve anything from several dozen ships to only two.

STARSHIP ENCOUNTER

If a starship encounter is rolled, roll on the appropriate Starship Encounter table below, depending upon where you are in Human Space. Modify your roll by adding the Trade Index (page 274) and the Starport Rating (page 276) of the current system.

Z-RADIATION SOURCE

You encounter a powerful source of z-radiation. Options include a burst of z-radiation (see below) caused by a poorly executed 2-space jump, exotic matter, or some unknown source of this poorly understood phenomenon. Roll 1D: 1-5 = 1D x 20 rads/hour; 6 = 1D x 100 rads/hour.

Z-Radiation

Z-radiation is emitted by unshielded ZIP cells and ZIP plants, anomalous entries or emergences from 2-space, rare forms of exotic matter, and many items of Venu technology that were reverse engineered from higher TI Commonality sources. Like all other forms of radiation, it's highly damaging to organic cells, but it also has a number of unique and disturbing effects that are poorly understood by Commonality science. Despite the differences from standard radiation, z-radiation is also measured in rads.

Table 8-10: Core Worlds Starship Encounters

Roll 2D	Encounter
1	Alien starship
2	Surveillance Ship
3	Customs Boat
4	System Patrol Boat
5	Diplomatic Courier
6	Space Station or Star City
7	Mindjammer
8	Diplomatic Courier
9	Merchant Vessel
10	Plateworld
11	Asteroid Miners
12	Merchant Ship
13	Alien Starship

Table 8-11: Fringe Worlds Starship Encounters

Roll 2D	Encounter
1-2	Scouting vessel, usually an *Icarus*-class Scout or a *Botany Bay*-class Stage 2 Explorer
3	Surveillance Ship
4	System Patrol Boat
5	Asteroid Miner
6	Diplomatic Courier
7	Mindjammer
8	New Traders, often in a *Profit*-class New Trader (page 176)
9	Star City
10	Cargo and passenger vessels setting up a new colony
11	System Patrol Boat
12	Merchant Vessel
13	*Nautilus*-class Manowar or other Commonality Capital Ship

Table 8-12: Outer Worlds Starship Encounters

Roll 2D	Encounter
1	Slowship (Roll 1D: 1-4 = Modern; 5-6 = Ancient, never reached destination).
2	Hostile Vessel, typically Venu or allied with the Venu
3	Automated Commonality Probe
4-5	Scouting vessel, usually an *Icarus*-class Scout or a *Botany Bay*-class Stage 2 Explorer
6	Automated Commonality Probe
7	Surveillance Ship
8	New Traders, often in a *Profit*-class New Trader (page 176)
9-10	Merchant Vessel
11	Cargo and passenger vessels setting up a new colony
12	Asteroid Miners
13	Alien starship

Table 8-13: Embargoed or Quarantined System Starship Encounters

Roll 2D	Encounter
1	Hostile Vessel, typically Venu or allied with the Venu
2	Surveillance Ship
3	Quarantine Enforcer
4	System Patrol Boat
5	Surveillance Ship
6	Roll 1D: 1-5 = Embargo Runner or Pirate; 6 = Space Battle
7	Quarantine Enforcer
8	Surveillance Ship
9	Diplomatic Courier
10	Commonality Capital Ship
11	Diplomatic Courier
12	Space Station
13	Merchant Ship

Immediate exposure to z-radiation is largely identical to immediate exposure to other forms of radiation; use the Immediate Radiation Exposure column of the Radiation Effects table in the ***Traveller Core Rulebook*** (page 77) to determine effects. However, while cumulative exposure to ordinary forms of radiation merely causes progressive negative effects to the victim's health, cumulative exposure to z-radiation can also reshape victim's bodies, causing their flesh to mutate and change for reasons that even the Commonality's most advanced researchers are unable to fully explain. Z-radiation mutation is rare in the Commonality, and is almost always treated promptly; however, it's endemic among Venu soldiers and starship crews, many of whom wear their altered bodies with pride. To determine the effects of cumulative exposure to z-radiation, refer to Table 8-15: Cumulative Z-Radiation Effects, page 155. Characters should track cumulative z-radiation exposure separately to other radiation exposure.

Note that, unlike conventional radiation, armour and fields do not protect against z-radiation exposure. The Commonality has treatments that can remove cumulative z-radiation dosages and even reverse z-radiation mutations, but they are complex, requiring several days, and can only be performed at fully-equipped T9+ medical facilities.

Table 8-14: Successor State Starship Encounters

Roll 2D	Encounter
1	Venu Fleet
2	Roll 1D: 1-5 = Venu Ship; 6 = Space Battle
3	Alien Vessel
4	Venu Ship
5	Asteroid Miner
6	Commonality starship that is part of the Sentient Alliance
7	Mindjammer
8	Commonality starship that is part of the Sentient Alliance
9-10	New Traders, often in a *Profit*-class New Trader (page 176)
11	System Patrol Boat
12	Merchant Vessel
13	*Nautilus*-class Manowar or other Commonality Capital Ship

RESOURCE EXTRACTION

In addition to looking for trade goods, freight, or passengers, characters can also attempt to find resources they can sell. The nature of the resources depends upon the stellar body type of the system in question: see page 238 and page 261. There are several ways of extracting and selling resources.

Asteroid Mining

Even if you don't roll an "Ore-Bearing Asteroid" result on Table 8-9: Star System Events, you can still search for one, using the task below. Ore-bearing asteroids are found in star systems with accretion disks, asteroid belts, dwarf planets, or protoplanets (see Table 13-4: Unknown World Planetary Type, page 252). If a star system has none of these, then you can't attempt to find an ore-bearing asteroid there.

- *Locate an Ore-Bearing Asteroid:* Formidable (14+), Interface (sensors) check (1Dx4 Days, INT).

Planetary Resource Extraction

Characters can also search for valuable resources on planets. Because of the difficulty of locating such resources and the likelihood of someone else having discovered them first, characters only have a chance of locating resources that are listed as "Plentiful" in the Planetary Types listings (page 263). Also, a character can only locate such resources on uninhabited worlds, or on worlds of T4 or lower with Population 7 (Standard: tens of millions) or below.

- *Locate a Valuable Planetary Resource:* Formidable (14+), Interface (sensors) check (1Dx4 Days, INT).

If successful, roll on Table 8-18: Planetary Resource Extraction (Life-bearing World) or Table 8-19: Planetary Resource Extract (Lifeless World).

Table 8-15: Cumulative Z-Radiation Effects

Cumulative Z-Radiation Exposure	Effects
50 rads or less	None.
51-150 rads	None.
151-300 rads	Roll 2D on Table 8-16: Z-Radiation Mutations.
301-500 rads	-1 END permanently and roll 2D on Table 8-16: Z-Radiation Mutations.
501-800 rads	-1 END permanently and roll 2D+1 on Table 8-16: Z-Radiation Mutations.
801 rads or more	-2 END permanently and roll 2D+1 on Table 8-16: Z-Radiation Mutations.

Table 8-16: Z-Radiation Mutations

Roll 2D	Trait Acquired
2	Notable Characteristic (roll 1D on characteristic table).
3	Armour (+1D3).
4	Roll 1D: 1-4 = Natural Weapons (+1D3); 5 = Bio-electricity (+1D); 6 = Bioelectricity (+2D).
5	Roll 1D: 1-5 = Partial Bipedalism, 6 = Amphibious.
6	Tentacles. Roll 1D: 1-3 = replace limbs with tentacles; 4-6 = gain 1D3 tentacles, but limbs are unchanged.
7	Altered Appearance*.
8	Slow Metabolism (-1D3).
9	Slow (-1D3).
10	Poor Manipulators.
11	Atmosphere Requirement (minor).
12	Weak Characteristic (roll 1D on characteristic table).
13	Weak Characteristic (roll 1D on characteristic table) and roll on this table again, using 1D+6.

** Character appears strange and somewhat inhuman, but gains no traits.*

Table 8-17: Characteristic Table

Roll 1D	Characteristic
1	STR
2	DEX
3	END
4	INT
5	STR
6	END

Table 8-18: Planetary Resource Extraction (Life-bearing World)

2D	Resources Available
2	2D tons of Precious Metals.
3	1D x 20 tons of Spices.
4-5	2D x 20 tons of Luxury Woods (or another sturdy biological material).
6-7	2D x 50 tons of Luxury Woods (or another sturdy biological material).
8-9	2D x 10 tons of Live Animals.
10	2D x 20 tons of Common Raw Materials.
11	1D x 10 tons of Crystals and Gems.
12	1D x 10 tons of Biochemicals.

Table 8-19: Planetary Resource Extraction (Lifeless World)	
2D	**Resources Available**
2	2D tons of Precious Metals.
3	2D x 10 tons of Uncommon Raw Materials.
4-5	2D x 20 tons of Uncommon Ore.
6-7	2D x 10 tons of Uncommon Ore.
8-9	2D x 10 tons of Common Ore.
10-11	1D x 10 tons of Crystals and Gems.
12	1D tons of Radioactives.

SPACE COMBAT

Space combat is very similar to the rules described in the ***Traveller Core Rulebook***, but with a few important differences. Any aspects of space combat that are not specified in the rules below are unchanged.

30 Second Combat Rounds

In ***Mindjammer***, gravity engine accelerations are far higher than standard ***Traveller***, and most space combat is mediated by starship sentiences. Additionally, basic intelligences or above control weapon systems—except among the Venu, where brainjacks fry their minds trying to pilot their radioactive vessels. Consequently, space combat takes place more rapidly, and instead of using the six-minute space combat rounds in the ***Traveller Core Rulebook***, space combat in ***Mindjammer*** uses rounds of 30 seconds.

30 seconds is still a very long time for the hyper-fast thoughts of synthetic minds, or for human minds connected to the Mindscape, but purely physical considerations of how rapidly turrets can rotate or the speed of missiles are all limiting factors. The rules for close range combat (***Traveller Core Rulebook***, page 162) are still used in ***Mindjammer***, for encounters such as dogfights (particularly between space combat drones and fighters) and boarding actions.

Combat Manoeuvring

Because of the higher acceleration of ***Mindjammer***'s gravity engines, you should continue to use the Combat Manoeuvring Table at the bottom of page 156 of the ***Traveller Core Rulebook***, but calculate the thrust involved from the rating of the ship's gravity engines, and read the timescales as 30-second combat rounds. The thrust points available per round to a spacecraft are equal to the Gs of acceleration provided by its gravity engines divided by 100, as shown in Table 8-20: Gravity Engine Thrust Points.

Table 8-20: Gravity Engine Thrust Points

Gravity Engine Rating	Acceleration in Gs	Thrust Points Available Per Round
1	100	1
2	400	4
3	900	9
4	1600	16
5	2500	25
6	3600	36

Spacecraft Weapons

Missiles and sandcasters are unchanged from the space combat rules in the ***Traveller Core Rulebook***, but the other weapons differ; see the new starship weapons in the "Starship Design" section (page 158).

CRITICAL HITS

Because systems on board ***Mindjammer*** vessels differ from those in the ***Traveller Core Rulebook***, use Table 8-21: Critical Hit Locations (revised) when rolling for critical hits.

Critical hits on a vessel's shields should be rolled on Table 8-22a: Spacecraft Weapons Critical Hits (Shields) (overleaf).

Critical hits on a vessel's ship sentience should be rolled on Table 8-22b: Spacecraft Weapon Critical Hits (Ship Sentience) (overleaf), unless the vessel doesn't have a ship sentience (for example, if it's a Venu ship—see below), in which case the result of 12 should be rerolled.

Starship Mindscape Combat

Sentient starships that are equipped with a special ops Mindscape instance (page 166) can also enter Mindscape combat with other sentient starships or characters. Entering Mindscape combat requires that the ships be within Adjacent or Close range to each other (depending upon the size of the vessel: see page 158), and the combat ends as soon as either ship moves further away. However, if the ships are both within range of a Mindscape relay satellite, this range can be much greater: see page 136. This Mindscape combat is handled just like all other types of Mindscape combat, and uses the standard six-second combat rounds. If desired, starships can also attack passengers or crew who are connected to the Mindscape. Starships cannot attack Venu or Far Havens starships, since these starships are not normally connected to the Mindscape.

Table 8-21: Critical Hit Locations (revised)

Roll 2D	Location
2	Sensors
3	ZIP Plant
4	Shields
5	Weapon
6	Armour
7	Hull
8	Gravity Engines
9	Cargo
10	Planing Engines
11	Crew
12	Ship Sentience (or reroll)

CRITICAL HITS ON VENU SHIPS

Venu ships suffer an automatic +1 to the severity of all ZIP Plant, Shields, Weapon, Gravity Engines, and Planing Engines critical hits. Severity rolls of 7 are identical to rolls of 6, except that in all cases, the relevant component explodes, increasing the Hull Severity by +1D, and requiring the component to be replaced instead of repaired.

A roll of a 7 on a Venu ship's "dirt drive" (its reverse engineered planing engines) means that the vessel explodes and is completely destroyed. Critical hits by torsion cannon or a Venu disruptor cannon (page 163) add a second DM+1 to critical hits against these Venu systems, and a severity roll of 8 on a Venu ship's ZIP Plant, Shields, Weapon, or Planing Engines means that the vessel explodes and is completely destroyed.

A roll of "Ship Sentience" on a Venu ship means that the weapon affects the Venu "brainjack" pilot. Double all damage done to the brainjack, as they're far less durable than ship sentiences.

Damage to Sentient Starship Characters

Damage to sentient starships is handled differently from damage to other characters. When attacking a sentient starship from outside the starship hull, use the starship combat rules; in this case, the only way the starship's core corpus (its "brain") can be harmed directly is via the "Ship Sentience" critical hit.

However, it's possible for someone inside a starship to attack the core corpus directly. Unless armoured bulkheads have been added around the core corpus (which many starship sentiences do indeed opt for), a typical starship core corpus has 15 points of armour; armoured bulkheads double this to 30 points. In the event of a "Ship Sentience" critical hit, or an attack from inside the ship using a weapon which penetrates this armour, the ship sentience takes damage like any

Table 8-22a: Spacecraft Weapon Critical Hits (Shields)						
Location	**Severity 1**	**Severity 2**	**Severity 3**	**Severity 4**	**Severity 5**	**Severity 6**
Shields	Shields reduced by 1 until repaired.	Shields reduced by 1D until repaired.	Shields temporarily fail for 1D rounds.	Shields fail until repaired.	Shields fail until repaired; Hull Severity increased by +1.	Shield generator explodes; Hull Severity increased by +1.

Table 8-22b: Spacecraft Weapon Critical Hits (Ship Sentience)						
Location	**Severity 1**	**Severity 2**	**Severity 3**	**Severity 4**	**Severity 5**	**Severity 6**
Ship Sentience	Ship sentience suffers 1D3 damage.	Ship sentience suffers 1D damage.	Ship sentience suffers 2D damage.	Ship sentience suffers 3D damage.	Ship sentience suffers mindburn; Hull Severity increased by +1.	Ship sentience suffers mindburn and 3D damage; Hull Severity increased by +1.

other character, with one exception: its three characteristics that can be damaged are DEX, INT, and EDU.

Damage is initially applied to a ship's DEX. If the ship is reduced to 0 DEX, excess damage is deducted from INT or EDU (target's choice). If either INT or EDU are reduced to 0, the ship sentience becomes incapacitated (incoherent, and in a state close to unconsciousness) and any further damage is deducted from the remaining characteristic. If all three characteristics (DEX, INT and EDU) are reduced to 0, the ship sentience's core corpus has been destroyed; the sentience is dead. If the ship is in 2-space when the ship sentience is incapacitated or destroyed, the ship automatically suffers a misjump (page 146).

Action Step

Space combat checks by Commonality vessels can be made by one of the ship's basic sentiences, using a DM+3 in place of any skill or characteristic modifier. Characters, including the starship sentience, may assist these systems using the task chain rules, or take control of the system themselves and have the basic sentience assist them. In either case, each party makes the same check with the same difficulty and modifiers.

Note that characters operating systems on starships equipped with basic sentiences may opt for the default single DM+1 instead of making a task chain roll for the basic's assistance.

STARSHIP DESIGN

The design systems in this section permit the creation of ***Mindjammer*** starships up to 100,000 tons displacement, the sort of vessels which will crop up most often in play. A copy of ***High Guard*** is required. Future ***Mindjammer*** supplements will describe the creation of much larger vessels, up to and including the vast **plateworlds**.

Hull Size

In ***Mindjammer***, starship hulls are categorised in a series of **hull powers**, based on their size. Different-sized hulls are used for different purposes. The first step in creating a ship is to decide upon the power of its hull: these design systems describe hulls up to **4th power**. Larger hulls (up to 20th power and even beyond) will be detailed in future supplements.

ZERO POWER HULLS (1-9.5 TONS)

Size Range: Equal to a sphere 3-6m in diameter. Maximum of 2 crew or passengers. Hulls in this size range can be created in half-ton increments, so that 1.5 or 4.5 ton hulls are possible.

Examples*: Heavy Manned Fighter, event horizon probes, small craft.*

1ST POWER HULLS (10-95 TONS)

Size Range: Equal to a sphere 6.5-13m in diameter. Hulls in this size range can be created in 1-ton increments, so that 11 or 23 ton hulls are possible.

Examples*:* Icarus*-class Scout, small planing craft, larger event horizon probes.*

2ND POWER HULLS (100-950 TONS)

Size Range: Equal to a sphere 14-28m in diameter. Hulls in this size range can be created in 50-ton increments, so that 150 or 450 ton hulls are possible.

Examples*: Mindjammer, System Patrol Boat. Most PC-level starships are 2nd power hulls, usually carrying 2-90 personnel.*

3RD POWER HULLS (1000-9500 TONS)

Size Range: Equal to a sphere 30-60m in diameter.

Examples*: 3rd power hulls tend to be official instrumentality ships, like the* Botany Bay*-class Stage 2 Explorer.*

4TH POWER HULLS (10000-95000 TONS)

Size Range: Equal to a sphere 65-130m in diameter.

Examples*: Capital ships like the* Nautilus*-class Manowar, massive cargo and passenger ships suitable for creating entire colonies.*

Ship Generations

Some five "generations" of faster-than-light vessels operate in Commonality Space and beyond, dating from the year 1 NCE (New Commonality Era—see page 192) to the current year 193 NCE, as well as the very latest experimental and cutting-edge craft dispatched by the Commonality Core.

First Generation (1-10 NCE): *Vessels used immediately after the initial discovery of planing. They have lots of technical issues, and are essentially slowships and small craft quickly and clumsily retrofitted with planing engines.* ***Available Planing Engine Ratings:*** *1-2.*

Second Generation—Pre-War (10-110 NCE): *The vessels of the early Rediscovery Era are more standardised and better designed than first generation ships. They're characterised by not being at all designed for combat, even if they've had weapons systems retrofitted later. Examples include the* Botany Bay*-class Explorer as well as the most common models of many standard non-military ships, like the Mindjammer, and all of the standard trading vessels like the* Profit*-class New Trader.* ***Available Planing Engine Ratings:*** *1-3.*

Third Generation—Venu War Era (110-120 NCE): *Unsophisticated, mass-produced, yet thoroughly effective armed and armoured vessels, produced rapidly to respond to the sudden need for warships during the Venu War. The Space Combat Drone is one example of a ship from this era.* ***Available Planing Engine Ratings:*** *1-4.*

Fourth Generation—Post-War (120-170 NCE): *Fourth Generation ships are refinements of Venu War Era vessels, often heavily armed and armoured, and much better designed. They include the system defence boat, quarantine enforcer, and surveillance ship.* ***Available Planing Engine Ratings:*** *1-5.*

Fifth Generation—3-Space Era (170-190 NCE): *Fifth Gen ships are the "latest generation" of vessels, designed and built in the last 10-20 years and often referred to as "Core Ships". They include the* Nautilus*-class Manowar and the Heavy Manned Fighter.* ***Available Planing Engine Ratings:*** *1-6.*

Next Generation—X-Ships (190+ NCE): *Cutting edge experimental vessels produced literally in the last few years. They're rarely seen in Outremer and the other subsectors of the Rim, usually being confined to the Core; they're pretty much universally in Commonality hands. They include the* Hyperwing*-class Very Fast Courier.* ***Available Planing Engine Ratings:*** *1-6.*

Create a Hull

The procedure and cost for creating a hull is identical to that found on pages 10-13 of ***High Guard,*** except that at T9+ (TL15+), the Superior Stealth option is reduced in cost to MCr0.3/ton, and you have the option of installing a Variform Hull. This is an expensive option, raising the total hull cost to MCr0.2 for every ton of hull and uses 1 Power for every 2 tons of hull. Variform hulls provide the following advantages:

- **Alter Hull Exterior:** The ship can transform the exterior of the hull to gain the benefits of reflec (TL10/T7), stealth (TL10/T7), or a holographic hull (TL10/T7), but can't provide more than one of these benefits at a time. In addition, extended sensor arrays automatically become rapid deployment extended arrays at no added cost, due to the ship's ability to reshape itself.
- **Change Configuration:** The ship can change configuration to any configuration except Planetoid or Buffered Planetoid. The ship's current hull points change depending upon the configuration selected.
- **Compact Ship:** As long as the ship is not carrying passengers or cargo, it can be compacted to easily fit into the hangar of a larger vessel or space station. When compacted, reduce the ship's tonnage by half. Unlike other alterations, no one except the ship sentience can be present on the vessel, and no cargo can be stored in the cargo hold, while the ship is compacted or expanded.
- **Create Cargo Handling Equipment or External Structures:** Temporarily give turrets pop-up mountings, as well as creating aerofins, additional airlocks, a cargo crane, docking clamps, external cargo mounts, forced linkage apparatus (TL15/T9), a grappling arm, a loading belt (TL7/T5), a recovery deck, or a tow cable as needed, at no additional cost. Creating any of these structures requires subtracting any required tonnage from some other portion of the ship, typically from cargo space or any one of the listed structures. However, the ship cannot reallocate cargo space which currently contains cargo.
- **Reallocate Armour:** Reallocate hull armour to create armoured bulkheads around specific interior compartments.
- **Repair Hull Points:** The ship repairs hull damage automatically with no need for spare parts at a rate of 1 hull point per hour. However, the ship cannot repair damage to specific systems caused by critical hits and cannot repair damage while also reshaping itself.
- **Reshape Interior:** The ship can transform cargo bays into briefing rooms, cabin space, concealed compartments, docking space, hangars, libraries, multi-environment spaces, staterooms (including high and luxury staterooms), stables, studios, training facilities, or vaults as needed, and can transform any of these rooms or spaces into one another or into additional cargo bays, allowing it to carry more passengers, more cargo, or provide various useful rooms depending upon its current needs. The only limitation on these changes is that the ship's total tonnage cannot be increased and so tonnage for a new facility must be subtracted from some existing facility. Also, the total power required by all facilities cannot be greater than the total power provided by the ship.

Changing a ship's configuration or shipping size requires 1D+4 x 10 minutes, and cannot be combined with any other changes. Repairing hull points is a constant process, but must be halted to perform any other alterations. All other changes require 1D+4 minutes to complete, and the ship can only perform two such changes at a time. Divide these times by 5 for ships under 20 tons and by 30 for ships under 5 tons.

Variform hulls are compatible with radiation shielding and superior stealth hull options (***High Guard***, page 10), but not with other hull options. When added to a variform hull, superior stealth costs only MCr0.2 per ton. When adding armour to a variform hull, use the basic hull cost of Cr50000/ton when determining the cost of the armour.

Install Armour

T5 armour is titanium steel, identical in all ways to the TL7 Titanium Steel armour listed on page 13 of ***High Guard***. There are three types of higher TI armour:

- **Plasteel Armour** is T7, and is identical in tonnage, cost, and maximum armour to crystaliron armour (TL10).
- **Composite Armour** is T8, and is identical in tonnage, cost, and maximum armour to bonded superdense armour (TL14).
- **Metabond Armour** is T9, identical in tonnage, cost, and maximum armour to molecular bonded armour (TL16).

Install Drives

Reaction drives exist, but are rarely used at T7+. Manoeuvre drives do not exist and are replaced by **gravity engines**. To install gravity engines, replace the table on ***High Guard***, page 14, with Table 8-23: Gravity Engine Thrust Potential.

Jump drives also do not exist: replace them with 2-space **planing engines**. To install planing engines, replace the **jump potential** table on ***High Guard***, page 14 with Table 8-24: Planing Engine Potential.

The Venu have reverse engineered a primitive and dangerous T7 version of 2-space planing engines. In the Commonality, it's often called the **Venu dirt drive**. It has a maximum rating of 3, and incurs a DM-4 on all planing checks. To install this drive, use Table 8-25: Venu Dirt Drive Potential.

The remote Far Havens reverse engineered a T8 version of 2-space planing engines which is very similar to the Commonality version, if less efficient. Like the Venu dirt drive, it has a maximum rating of 3 and incurs a DM-2, although it lacks the dangerous side-effects of the Venu version. To install this drive, use Table 8-26: Far Havens Planing Engine Potential.

Table 8-23: Gravity Engine Thrust Potential

Gravity Engine Rating	1	2	3	4	5	6
Gs of Acceleration	100	400	900	1600	2500	3600
% of Hull	1%	4%	9%	16%	25%	36%
TI	T7	T7	T7	T7	T8	T8

Cost: *Gravity Engines cost MCr1 per ton.*

Table 8-24: Planing Engine Potential

Planing Engine Rating	1	2	3	4	5	6
% of Hull	10%	20%	30%	40%	50%	60%
TI	T9	T9	T9	T9	T10	T10

Cost*: Planing Engines cost MCr0.7 per ton.*

Table 8-25: Venu Dirt Drive Potential

Venu Dirt Drive Rating*	1	2	3
% of Hull	15%	30%	45%
TI	T7	T7	T7

** The Venu Dirt Drive leaks 2D / hour rads of z-radiation (page 153) when operational.*
Cost*: The Venu Dirt Drive costs MCr2 per ton.*

Table 8-26: Far Havens Planing Engine Potential

Far Havens Planing Engine Rating	1	2	3
% of Hull	12%	25%	37%
TI	T8	T8	T8

Cost*: Far Havens Planing Engines cost MCr1 per ton.*

Planing Engine Ratings: All three types of planing engine travel through 2-space at the same speed of 1 light year every 8 hours (just under 3 light years per day, or 20 light years per week), and increasing the rating does nothing to change that. Instead, the rating of planing engines increases their precision, and also extends their jump maximum (page 144). Planing engines gain a bonus to all planing checks equal to DM+1 x their rating; see Spacecraft Operations (page 141) for more. The use of an x-core doubles the jump maximum of planing engines; see below.

Install Power Plant

Fission, chemical, and fusion (TL8 / T6) powerplants are all available; others do not, and are replaced by compact fusion and ZIP plants. Neither of these require external fuel tanks: compact fusion power plants incorporate small internal fuel cells which must be replaced once a year; and ZIP plants use zero point energy and require no fuel. Compact fusion plants can be made as small as 0.02 cubic metres, and ZIP plants have no minimum size.

POWER REQUIREMENTS

Note that while other systems can use any available power plant, planing engines (including Venu dirt drives) can only use ZIP plants, as only they can supply the periodic massive spikes in power consumption that planing engines require.

Gravity Engines: To use gravity engines, a ship requires a number of Power points equal to 20% of the hull's total tonnage multiplied by the gravity engine rating.

Planing Engines: Planing engines have extremely high power requirements. In order to use planing engines, a ship requires a number of Power points equal to 4.5 x the hull's total tonnage multiplied by the planing engine rating.

X-Core: An x-core or **extension core** provides an additional zero point power core, doubling a ship's jump maximum (page 144). Because it only contains the core elements of a ZIP power plant, it has less than half the power plant's volume. An x-core requires 2 x the hull's total tonnage multiplied by the planing engine rating, then divided by 100 for an x-core built for a T8 ZIP plant, or by 160 for a T10 ZIP plant. Venu planing drives cannot use x-cores.

Table 8-27: New Power Plant Types

Type	Power Per Ton	Cost Per Ton
Compact Fusion (T7)	12	MCr0.6
Venu ZIP Plant (T7)*	60	MCr0.6
ZIP Plant (T8)	100	MCr0.2
ZIP Plant (T10)	160	MCr0.6

** Venu ZIP plants leak 2D/hour rads of z-radiation (page 153) when operational.*

The power requirements for basic ship systems and all other systems which are not listed in this book are identical to those in ***High Guard***.

Install Fuel Tanks

Ships using compact fusion or ZIP plants require no fuel tanks and no tonnage needs to be allotted to them. Fuel tanks for more primitive vessels can be found in ***High Guard***.

Install Computers

Mindjammer starships do not incorporate "computers". T7 vessels use non-sentient AIs; while T8+ craft use basic sentiences, or eidolons in the case of planeships (faster-than-light vessels). Spacecraft of T6 (TL9 or lower) may use the computer rules from ***High Guard***.

NON-SENTIENT SHIP AI (T7)

Non-sentient ship AIs require no tonnage or power and their cost is included in the price of the slower-than-light vessel and its systems. An AI typically provides a DM+2 for checks related to normal use of the ship, including Astrogation, Engineering, Gunnery, Interface (sensors), and Piloting. Crew members typically operate ship systems themselves, and may use the task chain rules to gain a positive DM from the AI's assistance, or alternatively a straight DM+1 (see **Operating Sentient Devices**, page 107).

BASIC SHIP SENTIENCE (T8)

Basic sentiences require no tonnage or power, and their cost is included in the price of the slower-than-light vessel and its systems. A basic sentience typically provides a DM+3 for checks related to normal use of the ship, including Astrogation, Engineering, Gunnery, Interface (sensors), and Piloting. Crew members typically operate ship systems themselves and may use the task chain rules to gain a positive DM from the basic's assistance, or alternatively a straight DM+1 (see **Operating Sentient Devices**, page 107).

CORE CORPUS (T8)

Mindjammer's faster-than-light starships (with the exception of Venu vessels—see page 182) require synthetic eidolon sentiences to pilot them through the lethal intricacies of 2-space. Every core corpus, the ship sentience's "brain", automatically incorporates a stasis web, designed to trigger in the event that the ship is catastrophically damaged or destroyed. The web also allows the core corpus to function as a stasis pod (page 167) with space for up to 1 human-sized crew member.

A core corpus requires 0.5 tons of space and uses negligible power. Ship sentiences are personnel, not property, and therefore have no cost, beyond any wages they might require. If a ship sentience lacks a particular skill, it can rely on the basic ship sentiences installed in its ship systems; see the **Basic Ship Sentience** section above.

LARGE CORE CORPUS (T8)

The tonnage of the core corpus can be increased to 2 tons, providing better access for repairs (DM+2 to checks to repair the core corpus), which also allows it to serve as a stasis pod with room for 8 human-sized crew members.

UNCREWED SHIP SENTIENCE (T8)

This version of the core corpus is designed for use in ships with no other crew. It requires only 0.1 tons, and its stasis pod has no room for other crew members. Like the other core corpuses, the system requires negligible power and has no cost.

VENU BRAINJACK COUCH (T7)

Venu faster-than-light ships must spend 1 ton and MCr1 on a brainjack couch, which allows Venu pilots to control the starship with their minds by plugging their brains directly into the dirt drive controls.

FAR HAVENS DUOPOLY RIG (T8)

The remote polity known as the Far Havens places very tight restrictions on synthetic intelligences, and requires the use of a human pilot in its vessels, working in collaboration with a restricted synthetic astrogator. This synthetic is a fully sentient entity, but suffers from very specific limitations, and is treated as property. Far Havens vessels must spend 0.1 tons and MCr0.2 on a **synthetic astrogator** with which the human pilot can interface using an augmentation with the same capabilities as a T7 proto-Mindscape implant.

Install Sensors

Sensors in ***Mindjammer*** are similar to those described on page 56 of ***High Guard***, with some differences in capability. Several new types of sensor are available. See **Sensors** (page 147).

Install Weapons

Missiles (T7) and Sandcasters (T7) from the ***Traveller Core Rulebook*** (page 158) are available, but other starship weapons are replaced by those shown below. Some weapons only mentioned in ***High Guard*** (pages 25-33) **are** also available. Laser drill turrets (T6) are available, as are ion cannon (T8), missile (T7), and torpedo (T7) barbettes and bays, and both railgun bays (T6) and railgun spinal mounts (T6). Tractor beam bays (T8) and neutron laser bays (T7, and called null cannon bays) from ***High Guard*** (pages 67-69) are also available. Except for the changes to tractor beams noted below, these weapons use all of the traits listed in ***High Guard*** except for their TI.

Decoy, fragmentation, long range, multi-warhead, nuclear, and ortillary missiles and torpedoes are available; use the missile flight times on page 30 of ***High Guard***, but these flight times are based on the far greater accelerations of gravity engines as well as the shorter, 30-second space combat rounds in ***Mindjammer*** (see **Space Combat**, page 156).

Table 8-28: Starship Sensors

Sensors	TI	Suite	DM	Power	Tons	Cost
Basic	6	Lidar, Radar	-4	0	-	-
Civilian Grade	6	Lidar, Radar	-2	1	1	MCr3
Military Grade	7	Infrawave Sensor, Jammers, Ultrawave Sensor	+0	2	2	MCr4
Improved	8	Densitometer, Emission Sensor, Gravity Wave Scanner, Infrawave Sensor, Jammers, Ultrawave Sensor, ZIP Field Scanner	+1	4	3	MCr4
Compact Military Grade	9	Densitometer, Emission Sensor, Gravity Wave Scanner, Infrawave Sensor, Jammers, Tachyon Sensor, Ultrawave Sensor, ZIP Field Scanner	+0	3	0.5	MCr5
Enhanced Civilian Grade	9	Gravity Wave Scanner, Infrawave Sensor, Tachyon Sensor, Ultrawave Sensor	-1	2	1	MCr3
Enhanced Military Grade	9	Densitometer, Emission Sensor, Gravity Wave Scanner, Infrawave Sensor, Jammers, Tachyon Sensor, Ultrawave Sensor, ZIP Field Scanner	+0	3	2	MCr4
Compact Survey	9	Densitometer, Emission Sensor, Infrawave Sensor, Jammers, Neural Activity Sensor, Quantum Substrate Scanner, Tachyon Sensor, Transbaryonic Sensor Array, Ultrawave Sensor, ZIP Field Scanner	+0	4	0.5	MCr6
Advanced	9	Densitometer, Emission Sensor, Infrawave Sensor, Jammers, Neural Activity Sensor, Quantum Substrate Scanner, Tachyon Sensor, Transbaryonic Sensor Array, Ultrawave Sensor, ZIP Field Scanner	+2	6	4	MCr5
Experimental	10	Densitometer, Emission Sensor, Infrawave Sensor, Jammers, Membrane Proximity Sensor, Quantum Substrate Scanner, Tachyon Sensor, Transbaryonic Sensor Array, Ultrawave Sensor, ZIP Field Scanner	+3	8	5	MCr6

Nuclear dampers, meson screens, and black globes do not exist in ***Mindjammer***, but the rest of the weapons section of ***High Guard*** is unchanged.

VENU DISRUPTOR CANNON (T7)

Like other Venu disruptor variants, this weapon was reverse-engineered from Commonality weapons; it is unstable, and emits deadly z-radiation. It gains a DM+2 to hit, but leaks 2D/hour rads of z-radiation (page 153) when operational. It adds a further DM+1 to critical hit severity when used against Venu ZIP plants, shields, weapons, gravity engines, and planing engines.

GRAVITY CANNON (T8)

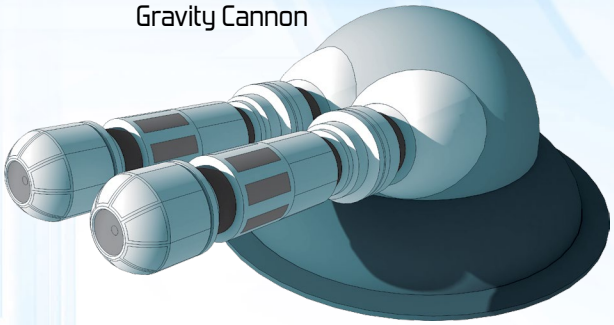
This beam weapon creates disruptive gravity wells in a limited volume of space. They cause explosions and structural integrity collapses where they intersect with solid objects. Gravity cannon create Blast 500 explosions if used in an atmosphere. In addition, their damage increases if used against any target larger than 5000 tons, due to the tidal stresses they induce in large targets.

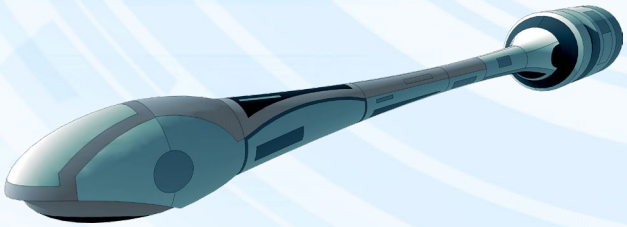
Table 8-29: New Turret Weapons

Weapon	TI	Range	Damage	Power	Cost	Traits
Venu Disruptor Cannon [R]	T7	Medium	3D	6	MCr1	
Gravity Cannon [R]	T8	Medium	4D/6D[1]	8	MCr2.5	
Null Cannon	T7	Long	2D	4	MCr0.5	
Plasma Cannon	T8	Very Long	3D	4	MCr1	
Torsion Cannon[2] [R]	T10	Close	5D	12	MCr5	AP10
Tractor Beam[2]	T8	Short	Special	10	MCr3	

[1] Gravity cannon do 4D vs targets under 5000 tons and 6D vs larger targets.
[2] These weapons are larger than usual, and any turret containing one of these weapons can house no other weapons.
[R] This technology is unavailable on non-military or non-law enforcement vessels. Missiles, and barbette, bay, and spinal mount weapons are all similarly restricted.

Gravity Cannon





Torsion Cannon

NULL CANNON (T7)

This long range, continuous beam laser cannon is the most common weapon used by the Commonality. Because they fire a continuous beam, null cannon turrets gain a DM+2 modifier to hit.

PLASMA CANNON (T8)

This large version of the blaster fires powerful bolts of searing plasma at targets.

TORSION CANNON AND TORSION FIELD PROJECTOR (T10)

Invented by the Commonality after the Venu War, these devastating weapons disrupt a target's structural integrity. They are particularly effective against the unstable Venu Dirt Drive, often causing Venu ships to simply explode. Torsion weapons cause critical hits against Venu ships if the attack roll has an Effect of 3 or higher and it causes damage; they also add a further DM+1 to critical hit severity when used against Venu ZIP plants, shields, weapons, gravity engines, and planing engines.

TRACTOR BEAM (T8)

This device allows the ship to focus the output of its gravity engines into a narrow directional beam that can attract or repel whatever it's aimed at. This weapon uses the rules for tractor beams described in ***High Guard*** (pages 68-69), with the following modifications. Tractor beam small bays can hold objects of up to 500 tons; tractor beam medium bays can hold objects of up to 1000 tons; and tractor beam large bays can hold objects of up to 5000 tons. Tractor beam turrets and barbettes also exist. Tractor beam turrets can hold objects of up to 100 tons, and tractor beam barbettes can hold objects of up to 200 tons. As in ***High Guard***, tractor beams can move objects at up to thrust 1, and can push as well as pull objects. Tractor beam turrets can remove a number of missiles from any salvo within range equal to 1D3 x Effect, tractor beam barbettes increase the number of missiles removed to 1D x Effect. Tractor beam small bays remove 2D x Effect missiles,

Table 8-30: New Barbette and Bay Weapons

Weapon	TI	Range	Power	Damage	Cost
Gravity Cannon Barbette	T8	Medium	25	6D/8D*	MCr8
Plasma Barbette	T8	Very Long	12	5D	MCr4
Tractor Beam Barbette	T8	Short	25	Special	MCr 6
Venu Disruptor Barbette	T7	Medium	15	5D	MCr 5
Gravity Cannon Small Bay	T8	Medium	50	8D/1DD*	MCr15
Plasma Small Bay	T8	Very Long	25	7D	MCr8
Venu Disruptor Small Bay	T7	Medium	40	7D	MCr10
Gravity Cannon Medium Bay	T8	Medium	80	1DD/2DD*	MCr30
Plasma Medium Bay	T8	Very Long	40	8D	MCr16
Venu Disruptor Medium Bay	T7	Medium	60	8D	MCr25
Gravity Cannon Large Bay	T8	Medium	400	2DD/3DD*	MCr100
Plasma Large Bay	T8	Very Long	200	1DD	MCr50
Venu Disruptor Large Bay	T7	Medium	220	1DD	MCr70

** Gravity cannon do extra damage against targets of more than 5000 tons, use the second damage rating against these targets.*

Table 8-31: New Spinal Mount Weapon							
Weapon	**TI**	**Range**	**Base Size**	**Power**	**Damage**	**Cost**	**Traits**
Torsion Field Projector	T10	Short	4000 tons	1000	+1DD	+MCr1500	AP20

tractor beam medium bays remove 4D x Effect missiles, tractor beam large bays remove 2DD x Effect missiles (roll 2D and multiply the result by 10). As stated in ***High Guard***, tractor beams can never hold or move objects larger than the vessel they are mounted on.

The new barbette, bay and spinal mount weapons shown in Table 8-30: New Barbette and Bay Weapons are also available.

Install Shields

Many T7+ spacecraft are protected by shields, force fields used for defensive purposes. In addition to providing almost complete protection against radiation, they also provide armour, reinforcing the hull against attacks and damage by micrometeors and other debris. See Table 8-32: Spacecraft Shields (51-500 tons) and Table 8-33: Small Craft Shields (5-50 tons).

The tonnage, power requirements, and cost of a shield depends upon the size of the vessel it is used on. Larger ships require larger shields. The listed power, tonnage, and cost are for ships with tonnages between 51 and 500 tons; divide the tonnage of ships larger than 500 tons by 500 and round all fractions up. For example, an 1100-ton ship would require 15 tons and 15 Power to use a haze field.

Ships with tonnages below 50 tons use Table 8-33: Small Craft Shields (5-50 tons). The listed power, tonnage, and cost are for ships with tonnages below 5 tons. Divide the tonnage of ships larger than 5 tons by 5 and round all fractions up. For example, a 21-ton ship would require 1 ton and 1 Power to use a haze field.

STEALTH FIELD (T9)

This field is not a shield, in that it provides no armour, but it does protect the vessel from observation. If the ship has landed or is otherwise not accelerating, any Recon, Interface (sensors) or other checks to see, locate, or otherwise notice the ship incur a DM-8, as do attempts to lock onto the vessel. If the ship is in accelerating, reduce the penalty to DM-4. The DM is cumulative with those provided by the Stealth and Superior Stealth Hull options.

VENU DISRUPTOR SHIELD (T7)

Like most other technology that the Venu reverse engineered from the Commonality, these shields emit z-radiation. Anyone within 20m of the vessel receives 2D rads of z-radiation / 20 minutes. The z-radiation is easy to detect, so Interface (sensors) checks to detect or lock onto vessels with Venu disruptor shields gain a DM+2. The shield also negates all stealth measures, including both Stealth Hull options and Stealth Fields.

Install Optional Systems

All spacecraft options from ***High Guard*** (pages 37-49) are available, but the fuel tank options only apply to T6 spacecraft, since more advanced craft all use compact fusion or ZIP plants. There are also several new optional systems, and others have been modified from their descriptions in ***High Guard***.

Table 8-32: Spacecraft Shields (51-500 tons)						
Shield	**TI**	**Armour**	**Rads**	**Power**	**Tons**	**Cost**
Haze Field	T8	+5	500	5	5	MCr2
Repulsor Shield	T9	+10	1000	12	10	MCr6
Stealth Field	T9	Special	-	7	7	MCr3
Venu Disruptor Shield	T7	+5	300	8	8	MCr3

Table 8-33: Small Craft Shields (5-50 tons)						
Shield	**TI**	**Armour**	**Rads**	**Power**	**Tons**	**Cost**
Haze Field	T8	+5	500	0.25	0.25	MCr0.05
Repulsor Shield	T9	+10	1000	0.5	0.5	MCr0.15
Stealth Field	T9	Special	-	0.3	0.35	MCr0.075
Venu Disruptor Shield	T7	+5	300	0.3	0.4	MCr0.075

DOCKING SPACE (T9)
At T9 and above, docking space does not round up to the nearest ton, and instead always consumes an amount of tonnage equal to that of the largest ship to be docked, plus 10%.

MINDSCAPE RELAY (T8)
This is identical in tonnage and cost to the TL13 mail distribution array in ***High Guard*** (page 42), but instead represents the ultra-high bandwidth transceivers used on Mindjammers. The system consumes 5 Power.

MAKEPOINT WORKSHOP (T9)
Using a compact industrial makepoint, this workshop permits the crew to create or repair almost any ship system and manufacture almost any device. This workshop allows two characters to use the Mechanic skill on board the ship with DM+4. While T9 advanced staterooms (page 167) include small makepoints capable of creating food, clothing, medicines, and personal items, the industrial makepoint included in this workshop is capable of creating large complex items, including a full range of spare parts for vehicles and starship systems or even the parts necessary to build most vehicles. Each makepoint workshop occupies 6 tons, uses 100 Power, and costs MCr2.

MINDSCAPE INSTANCE (T8)
All spacecraft and starships built by the Commonality or based on their designs include a Mindscape instance that allows everyone on board the vessel to access the Mindscape and use all Mindscape abilities and extensions while onboard the ship. This system is included in the cost of the hull and requires no tonnage, power, or cost. Mindscape instances on starships with zero and 1st power hulls have a range of Adjacent (1 km), while Mindscape instances on starships with 2nd – 4th power hulls have a range of Close (10 km).

REPAIR DRONES (T9)
At T9 and above, there is no cost for repair drones and they require no additional space. They are found on all Commonality ships.

SEED NODE (T9)
This self-contained system is specifically designed for use by event horizon probes (page 171). A seed node contains an uncrewed ship sentience, in a small variform hull containing gravitic suspensors, a powerful ZIP plant, and a makepoint designed to create all the components needed for creating synthetic colonies. It does not require any power from the ship. A seed node attaches to the event horizon probe and occupies 0.5 tons and costs MCr1.

SPECIAL OPS MINDSCAPE INSTANCE (T8)
In addition to providing a Mindscape instance for use by the ship's occupants, this Mindscape instance also allows the ship sentience to automatically possess the equivalent of a special ops/black chip. This system requires no tonnage or power, but installing it requires that the ship sentience have access to restricted equipment, and it costs Cr20000.

Determine Crew
Because of the widespread use of basic sentiences, crew

Table 8-34: Customary Minimum Crew Requirements

Position	Skills	Salary	Commercial[1]	Military[2]
Captain	-	Cr10000	Usually the leading officer.	1.
Pilot	Pilot	Cr6000	1.	3.
Astrogator	Astrogation	Cr5000	1 if planing engines installed.	1 if planing engines installed.
Engineer	Engineer	Cr4000	1 per 400 tons of drives and ZIP plant.	1 per 200 tons of drives and ZIP plant.
Maintenance	Mechanic	Cr1000	1 per 4000 tons of ship.	1 per 2000 tons of ship.
Medic	Medic	Cr4000	1 per 120 crew and passengers.	1 per 120 crew.
Gunner	Gunner	Cr2000	Typically handled by basic sentiences.	1 per 2 turrets / barbettes, 1 per bay / screen, 1 per 400 tons of spinal mount.
Steward	Steward	Cr2000	1 per 10 High or 100 Middle passengers. Often a synthetic.	1 per 10 High or 100 Middle passengers.
Administrator	Admin	Cr1500	1 per 4000 tons of ship.	1 per 2000 tons of ship.
Officer	Leadership or Tactics	Cr5000	1 per full 40 crew.	1 per full 20 crew.

[1] All of these duties can be performed by the starship or spacecraft sentience, assisted by various basic intelligences.
[2] Military spacecraft with 0 Power Hulls can also be crewed only by the starship or spacecraft sentience, assisted by basic sentiences.

requirements within the Commonality and on spacecraft and starships built by the Commonality are lower than in ***High Guard***, and even these smaller crews are used because of law and custom rather than strict necessity: any Commonality spacecraft or starship can operate itself without crew. However, military starships without additional crew risk being incapacitated if the starship sentience suffers damage. Crew requirements on Venu ships and other T7 or lower ships are identical to those in ***High Guard*** (pages 20-21), except that they only require 1 engineer per 120 tons of drives and power plant. For T8+ spacecraft and T9+ starships, use Table 8-34: Customary Minimum Crew Requirements.

Install Staterooms

Staterooms are identical to those in ***High Guard*** (pages 21-22), but if the vessel has a variform hull, then the staterooms can reshape themselves for the occupant's comfort and are not only more comfortable, but offer considerably more privacy and amenities if used for double occupancy. Also, even in ships without variform hulls, T9+ staterooms contain new amenities.

ADVANCED STATEROOMS (T9)

These living spaces include standard, high, and luxury staterooms as well as barracks, all of which have the same size and cost as their earlier versions. However, all of these accommodations use makepoint technologies, which include facilities for creating food, medicines, personal equipment, and even clothing and lightweight protective gear such as p-suits. Every T9 advanced stateroom and every 2 tons of advanced barracks consumes 5 power due to the power demands of these makepoints.

STASIS BERTHS (T7)

Stasis berths were how the ancient slowships transported passengers on their lengthy journeys, and some starships still use them for passenger transport. Because stasis fields stop time, these accommodations are essentially tubes that the passenger steps in and enters stasis. Each stasis berth holds one passenger, and displaces 0.25 tons. Stasis berths require no power, and each passenger can carry up to 100 kg of cargo into the stasis berth with them. **Cost**: Cr10,000.

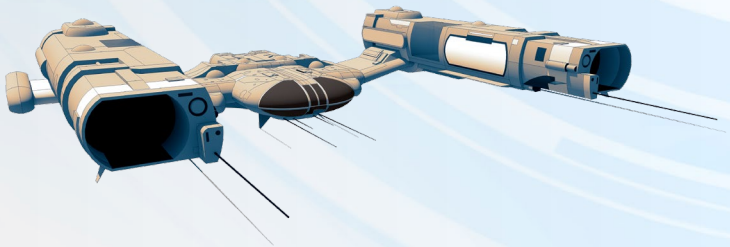
STASIS PODS (T7)

Most Commonality ships carry stasis pods as emergency lifeboats. Each stasis pod is an ovoid that displaces 1 ton and can hold up to 6 passengers. Once inside, the passengers are all placed in stasis together, and the basic sentience controlling the pod (housed outside the field) does not turn off this stasis field unless the occupants are being rescued or are otherwise in a safe environment. In addition to the passenger compartment, the stasis pod also contains a small locker containing p-suits and a small amount of other emergency equipment. Stasis pods are also equipped with powerful distress beacons, as well as vehicle-grade suspensors that can transport these pods to habitable worlds within the same star system, and simple navigational sensors that allow the pods to safely fly and land. **Cost**: Cr100,000.

COMMONALITY STARSHIPS

The Commonality has dozens of different types and models of starship. The following are some of the most common, especially out on the Fringe. Most of the starships listed here are excellent choices for characters in a ***Mindjammer*** campaign.

BOTANY BAY-CLASS STAGE 2 EXPLORER (T9)



The Botany Bay*-class Stage II Explorer is a Space Force vessel with 50-100 crew. Featuring extended endurance for deep space missions beyond the Fringe, it's equipped with bays for system survey drones and event horizon probes, and a dock for an* Icarus*-class scout (page 173). The booms provide xenoscience environments, and the volume between them and the habitat/bridge section can be fitted with a deck and field-pressurised to form an "open air" assembly space. It's an ideal base for exploration missions.*

Unit	Details	Tons	Cost (MCr)
Hull	*1300 tons, Variform, 3rd Power Hull*	-	260
Armour	*Metabond Armour 2*	13	19.5
Gravity Engines	*Gravity Engines-1*	13	13
Planing Engines	*Planing Engines-4*	520	364
Power Plant	*ZIP Plant*	250	50
Bridge		40	6.5
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Advanced, Enhanced Signal Processing, Life Scanner Analysis Suite*	7	17
Weapons	*Double Null Cannon Turret x 2*	2	2
Shields	*Haze Field (+5 Armour)*	15	6
Ship Systems	*Advanced Probe Drones x 10*	2	1.6
	Docking Space (6.5 tons)	7.15	1.8
	Icarus*-class Scout*	-	16.5275
	Docking Space (6 tons)	6.6	1.65
	Large ATV (T9)	-	0.13
	Docking Space (1.25 tons) x 10	12.5	3.125
	Event Horizon Probe x 10	-	88.35
	Laboratory x 10	40	10
	Makepoint Workshop	6	2
	Medical Bay	4	2
	Mindscape Instance	-	-
	Ship's Locker	-	-
	X-Core	104	20.8
Staterooms	*Advanced Standard x 50*	200	25
	Stasis Pods x 16	16	1.6
Cargo		39.75	
Total		**1300**	**912.58**

CREW

1 captain
3 pilots
1 astrogator
5 engineers
1 mechanic
2 gunners
1 medic
2 stewards
1 administrator
2 stewards
1 Icarus*-class scout pilot*
1 ATV pilot
20 scientists
3 officers
1 ship sentience
***Total**: 45 (minimum)*

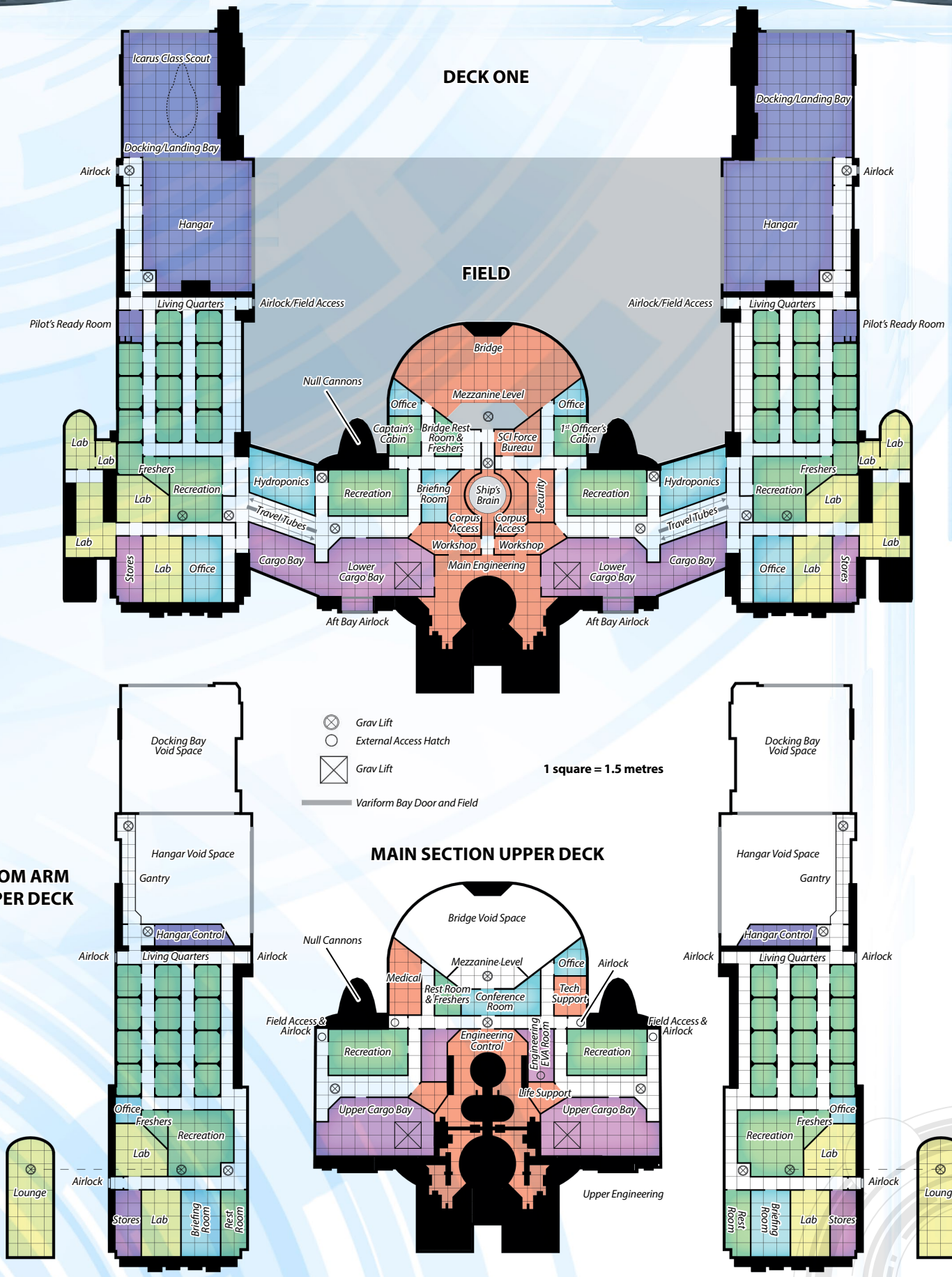
Hull Points	*520*

RUNNING COSTS

Maintenance Cost	*Cr76048/month*
Purchase Cost	*MCr912.5825*

POWER REQUIREMENTS

Variform Hull	*650*
Advanced Staterooms	*250*
Basic Ship Systems	*260*
Shields	*15*
Gravity Engines	*260*
Makepoint Workshop	*100*
Medical Bay	*1*
Planing Engines	*23400*
Sensors	*9*
Weapons	*16*
Total	***24962***


DECK ONE
Icarus Class Scout
Docking/Landing Bay
Airlock
Hangar
Living Quarters
Airlock/Field Access
Pilot's Ready Room
FIELD
Bridge
Null Cannons
Mezzanine Level
Office
Captain's Cabin
Bridge Rest Room & Freshers
SCI Force Bureau
1st Officer's Cabin
Lab
Freshers
Recreation
Hydroponics
Briefing Room
Ship's Brain
Security
Travel Tubes
Corpus Access
Workshop
Stores
Cargo Bay
Lower Cargo Bay
Main Engineering
Aft Bay Airlock
Docking Bay Void Space
Hangar Void Space
Gantry
Hangar Control
Grav Lift
External Access Hatch
Variform Bay Door and Field
1 square = 1.5 metres
BOOM ARM UPPER DECK
MAIN SECTION UPPER DECK
Bridge Void Space
Medical
Rest Room & Freshers
Conference Room
Tech Support
Engineering Control
Engineering EVA Room
Life Support
Upper Cargo Bay
Field Access & Airlock
Upper Engineering
Lounge
Briefing Room
Rest Room

Starship

ADAM SMITH-CLASS MERCHANT (T9)

The Adam Smith*-class merchant sits between the* Profit*-class new trader and the* Keynes*-class subsidised freighter and is designed for short-range trading runs on established routes. With a crew of 2-10, it dedicates most of its hull to cargo transport.*

Unit	Details	Tons	Cost (MCr)
Hull	*200 tons, 2nd Power Hull*	-	10
Armour	*Metabond Armour 2*	2	3
Gravity Engines	*Gravity Engines-1*	4	4
Planing Engines	*Planing Engines-1*	20	14
Power Plant	*ZIP Plant*	11	22
Bridge		10	1
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Enhanced Civilian Grade*	1	3
Weapons	*Double Null Cannon Turret*	1	1
Ship Systems	*Mindscape Instance* *Ship's Locker*	- -	- -
Staterooms	*Advanced Standard x 6*	24	3
Cargo		125	-
Total		**200**	**41.2**

CREW

1 pilot/astrogator
1 engineer/gunner
1 steward/medic
1 ship sentience
***Total**: 4*

Hull Points	*80*

RUNNING COSTS

Maintenance Cost	*Cr3433/month*
Purchase Cost	*MCr41.2*

POWER REQUIREMENTS

Advanced Staterooms	*30*
Basic Ship Systems	*40*
Gravity Engines	*40*
Planing Engines	*900*
Sensors	*2*
Weapons	*8*
Total	***1020***

Starship

HEAVY MANNED FIGHTER (T10)

During the Venu War, Commonality fighter defence was performed by space combat drones. The surprising effectiveness of Venu countermeasures and the development of torsion field technology has led to the creation of the heavy manned fighter. This vessel is larger than the space combat drone and is equipped with an experimental close range torsion cannon. These fighters are designed to be piloted independently by organic (especially cephalopod xenomorph) or synthetic n-pilots.

Unit	Details	Tons	Cost (MCr)
Hull	*4 tons, Stealth, 0 Power Hull*	-	0.75
Armour	*Metabond Armour 8*	0.16	0.24
Gravity Engines	*Gravity Engines-2*	0.16	0.16
Power Plant	*ZIP Plant*	0.18	0.036
Bridge	*Cockpit*	1.5	0.01
Sensors	*Compact Military Grade*	0.5	5
Weapons	*Torsion Cannon*	1	5
Ship Systems	*Mindscape Instance* *Re-Entry Capsule (TL 10/T8)* *Ship's Locker*	- 0.5 -	- 0.05 -
Total		**4**	**10.496**

CREW

1 pilot
***Total**: 1*

Hull Points	*2*

RUNNING COSTS

Maintenance Cost	*Cr875/month*
Purchase Cost	*MCr10.496*

POWER REQUIREMENTS

Basic Ship Systems	*1*
Gravity Engines	*2*
Sensors	*3*
Weapons	*12*
Total	***18***

EVENT HORIZON PROBE (T9)

Event horizon probes are dual eidolons housed in uncrewed planeships with zero power hulls. When the probe finds either a promising habitable world or a lost colony, the probe bifurcates; the planing engine half returns to Commonality Space, and the Seed Node half remains, its sentience forming the core of a nascent planetary sentience for the system's main world and creating a stage 1 synth colony (see page 277). As the synth colony develops, the sentience advances, forming the core of the global and then system Mindscape, and eventually a full planetary sentience capable of administering a populous Commonality world. This process is the same, regardless of whether the world was originally uninhabited or a rediscovered world.

Unit	Details	Tons	Cost (MCr)
Hull	*2.5 tons, Variform, Superior Stealth, 0 Power Hull*	-	1
Armour	*Metabond Armour 2*	0.025	0.0375
Gravity Engines	*Gravity Engines-1*	0.025	0.025
Planing Engines	*Planing Engines-3*	0.75	0.525
Power Plant	*ZIP Plant*	0.4	0.08
Ship Sentience	*Uncrewed Core Corpus*	0.1	-
Sensors	*Compact Survey*	0.5	6
Ship Systems	*Docking Space (0.5 ton)* *Seed Node* *Mindscape Instance* *X-Core*	0.55 - - 0.15	0.1375 1 - 0.03
Total		**2.5**	**8.835**

CREW

1 ship sentience
1 seed node
***Total**: 2*

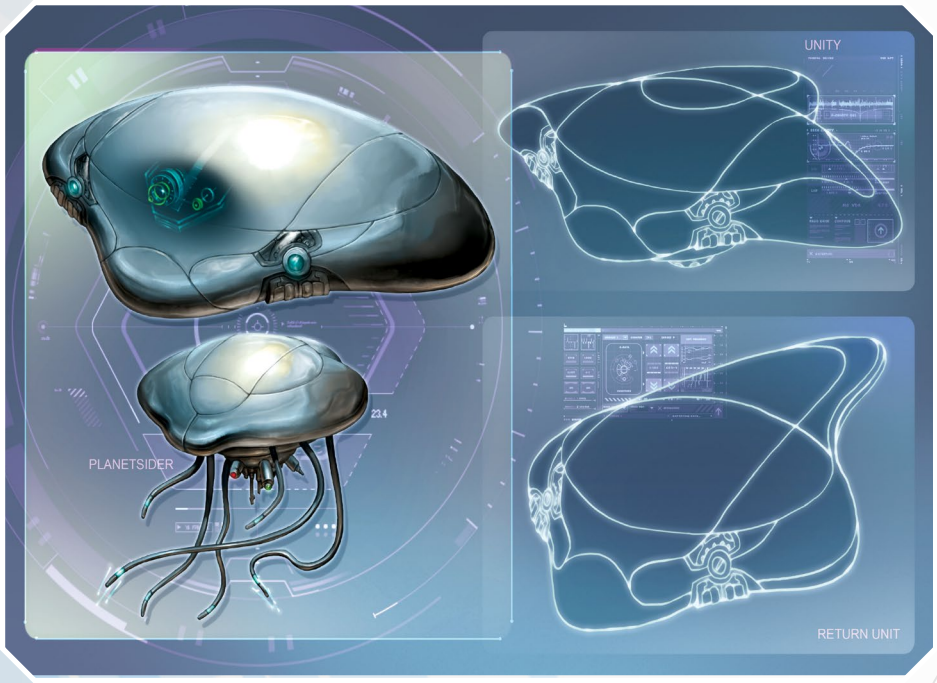
Hull Points *1*

RUNNING COSTS

Maintenance Cost	*Cr736/month*
Purchase Cost	*MCr8.835*

POWER REQUIREMENTS

Variform Hull	*1.25*
Basic Ship Systems	*0.5*
Gravity Engines	*0.5*
Planing Engines	*33.75*
Sensors	*4*
Total	***40***



HERALD-CLASS FAST COURIER (T9)

These small, agile ships are used by instrumentalities for urgent diplomatic transport. Fast couriers have 1 or 2 crew auxiliary to the ship sentience and can carry up to 4 passengers in excellent accommodations. Lightly armed and armoured, these vessels take their jobs very seriously. Long endurance models are fitted with x-cores.

Unit	Details	Tons	Cost (MCr)
Hull	*150 tons, Streamlined, 2nd Power Hull*	-	9
Armour	*Metabond Armour 2*	1.5	1.5
Gravity Engines	*Gravity Engines-2*	6	6
Planing Engines	*Planing Engines-3*	45	31.5
Power Plant	*ZIP Plant*	22	4.2
Bridge		10	1
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Enhanced Military Grade*	3	4
Weapons	*Double Null Cannon Turret*	1	1
Shields	*Haze Field (+5 Armour)*	5	2
Ship Systems	*Ship's Locker* *Special Ops Mindscape Instance* *X-Core*	- - 9	- 0.02 1.8
Staterooms	*Advanced Standard x 2* *Advanced High x 4*	8 24	1 3.2
Cargo		13.5	
Total		**150**	**66.22**

CREW

1 pilot/astrogator
1 engineer/gunner
1 steward/medic
1 ship sentience
***Total**: 4*

Hull Points	*60*

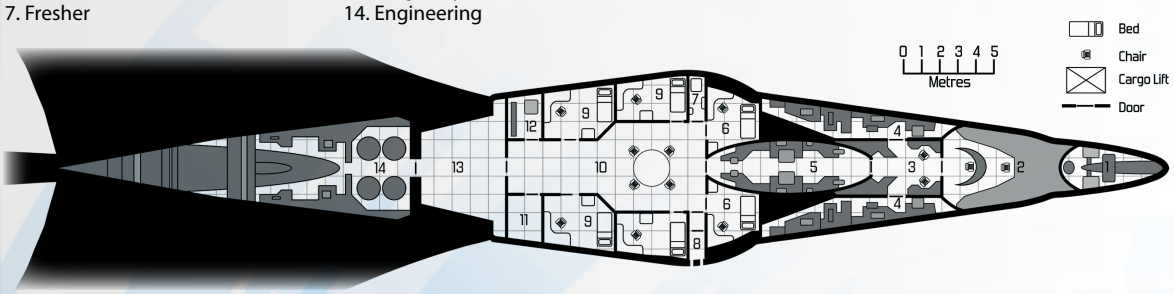
RUNNING COSTS

Maintenance Cost	*Cr5518/month*
Purchase Cost	*MCr66.22*

POWER REQUIREMENTS

Advanced Staterooms	*30*
Basic Ship Systems	*30*
Shields	*5*
Gravity Engines	*60*
Planing Engines	*2025*
Sensors	*3*
Weapons	*8*
Total	***2161***

1. Sensors
2. Bridge/Avionics
3. Sensors Station and Communications
4. Ship Systems
5. Ship Sentience
6. Crew Staterooms x2
7. Fresher
8. Airlock
9. Passenger Staterooms x4
10. Common Room/Meeting room
11. Ship's Locker
12. Galley
13. Cargo Bay
14. Engineering



ICARUS-CLASS SCOUT (T9)

The Icarus*-class scout is a sleek teardrop-shaped vessel capable of operating independently or with a single person crew. It's designed for deep space recon and Stage I exploration, and complements unmanned exploration drones and event horizon probes. These small ships are often carried on* Botany Bay*-class explorers*

Unit	Details	Tons	Cost (MCr)
Hull	*13 tons, Variform, Superior Stealth, 1st Power Hull*	-	5.2
Armour	*Metabond Armour 1*	0.065	0.0975
Gravity Engines	*Gravity Engines-1*	0.13	0.13
Planing Engines	*Planing Engines-4*	5.2	3.6
Power Plant	*ZIP Plant*	2.6	0.5
Bridge/Barracks*	*Bridge + Advanced Barracks*	4	0.5 0.5
Ship Sentience	*Core Corpus*	0.5	-
Sensors	*Compact Survey*	0.5	6
Ship Systems	*Mindscape Instance* *Ship's Locker*	- -	- -
Cargo		0.005	-
Total		**13**	**16.53**

** This tiny starship uses variform technology to combine a 3-ton bridge with a 2-ton barracks and fit it all into 4 tons. Even so, these accommodations are cramped and only suitable for dedicated personnel.*

CREW

1 pilot
1 ship sentience
***Total**: 2*

Hull Points	*5*

RUNNING COSTS

Maintenance Cost	*Cr1377/month*
Purchase Cost	*MCr16.5275*

POWER REQUIREMENTS

Advanced Barracks	*5*
Basic Ship Systems	*2.6*
Gravity Engines	*2.6*
Planing Engines	*234*
Sensors	*4*
Variform Hull	*6.5*
Total	***254.7***

SURVEILLANCE SHIP (T9)

Often unmanned, surveillance ships carry intrusion drones, and are placed around worlds in Stage Zero Cultural Integration. They're also used by SCI Force and in other cultural ops.

Unit	Details	Tons	Cost (MCr)
Hull	*100 tons, Variform, Superior Stealth, 2nd Power Hull*	-	40
Armour	*Metabond Armour 2*	1	1.5
Gravity Engines	*Gravity Engines-1*	1	1
Planing Engines	*Planing Engines-1*	10	7
Power Plant	*ZIP Plant*	7	1.4
Bridge		10	0.5
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Advanced with Extended Array* *Extension Net*	12 1	15 1
Weapons	*Double Null Cannon Turret*	1	1
Shields	*Haze Field (+5 Armour)* *Stealth Field*	5 6	2 3
Ship Systems	*Ship's Locker* *Special Ops Mindscape Inst* *Advanced Probe Drones x 10*	- - 2	- 0.02 -
Staterooms	*Advanced Standard x 6*	24	3
Cargo		18	-
Total		**100**	**76.42**

CREW

1 pilot/astrogator *1 engineer/mechanic*
1 drone pilot/sensor operator *1 gunner*
2 field technicians *1 ship sentience*
***Total**: 7*

Hull Points	*40*

RUNNING COSTS

Maintenance Cost	*Cr6868/month*
Purchase Cost	*MCr82.42*

POWER REQUIREMENTS

Variform Hull	*50*
Advanced Staterooms	*30*
Basic Ship Systems	*20*
Shields	*20*
Gravity Engines	*20*
Planing Engines	*450*
Sensors	*18*
Weapons	*8*
Total	***616***

Starship

MINDJAMMER (T9)

With no FTL communication technology in the Commonality, the Mindjammers carry communications and information between the stars. They travel between star systems, reinforcing and updating the Mindscape and thus tying the Commonality together. Mindjammers often become fascinated by the thought traffic of the Mindscape, retiring from active service to embark on alternative occupations—including working with PCs on unusual missions and special operations. Others return their Mindscape relay to the Communications Instrumentality and use that space for research facilities, passengers, or cargo, becoming freelance explorers or even New Traders.

The Mindjammer*-class planeship is the signature ship of the Commonality. It's shown here in its "threat" configuration, variformed for aggressive appearance, including hooked wing tips and an angular profile. Note the aft Mindscape transceiver array triangulated with the port and starboard processor nacelles, allowing the Mindjammer constant Mindscape contact until jump, and likewise its famous "tail first" system approach as it transmits Mindscape updates immediately upon arrival.*

Unit	Details	Tons	Cost (MCr)
Hull	*100 tons, Variform, 2nd Power Hull*	-	20
Armour	*Metabond Armour 2*	1	1.5
Gravity Engines	*Gravity Engines-3*	9	9
Planing Engines	*Planing Engines-2*	20	14
Power Plant	*ZIP Plant*	11	2.2
Bridge		10	0.5
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Enhanced Military Grade*	2	4
Weapons	*Double Null Cannon Turret*	1	1
Ship Systems	*Mindscape Relay** *Ship's Locker* *Special Ops Mindscape Instance*	20 - -	10 - 0.02
Staterooms	*Advanced Standard x 3*	12	1.5
Cargo		12	-
Total		**100**	**63.72**

** This system is capable of both receiving and broadcasting Mindscape data with a bandwidth vastly greater than most starships possess, permitting this ship to receive and transmit Mindscape updates with extreme rapidity. Updates are usually complete by the time the Mindjammer has approached to within docking range of a Mindscape node.*

CREW

1 pilot/astrogator
1 engineer/gunner
1 ship sentience
***Total**: 3*

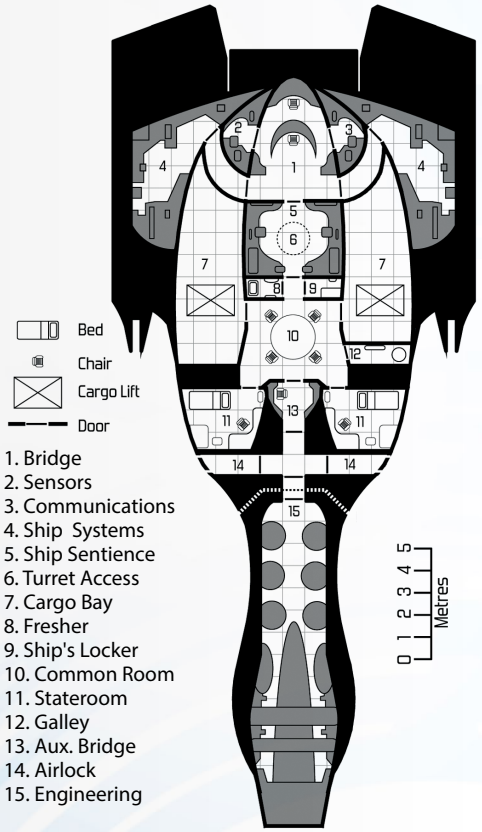
Hull Points	*40*

RUNNING COSTS

Maintenance Cost	*Cr5310/month*
Purchase Cost	*MCr63.72*

POWER REQUIREMENTS

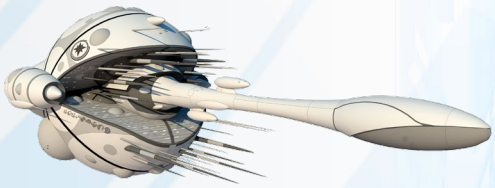
Variform Hull	*50*
Advanced Staterooms	*15*
Basic Ship Systems	*20*
Gravity Engines	*60*
Mindscape Relay	*5*
Planing Engines	*900*
Sensors	*3*
Weapons	*8*
Total	***1061***



1. Bridge
2. Sensors
3. Communications
4. Ship Systems
5. Ship Sentience
6. Turret Access
7. Cargo Bay
8. Fresher
9. Ship's Locker
10. Common Room
11. Stateroom
12. Galley
13. Aux. Bridge
14. Airlock
15. Engineering

NAUTILUS-CLASS MANOWAR (T10)

The manowars are the Commonality's response to the Venu War: dedicated warships containing and pushing back the threat from Orion. The Nautilus*-class is the new generation, one of the most powerful ships in Commonality Space. It's the size of a small city, with a crew in the thousands. Note the Nautilus's signature torsion field projector spinal mount, the cutting edge Commonality weapon specifically designed to take advantage of instabilities in the reverse-engineered Venu dirt drive. The vessel has numerous launch bays for the new manned heavy fighters. Fully sentient, it often acts as fleet mediator. The* Nautilus *is the third generation of manowars since Rediscovery (actually since the first Venu War), and directly supersedes the* Mars*-class, still in service on the Fringe, and the "first generation"* Lightning Inspiration*-class converted interdiction cruiser which turned the tide during the 117-118 NCE campaigns. It's an excellent base for characters on military campaigns beyond the Frontier.*



Unit	Details	Tons	Cost (MCr)
Hull	*90000 tons, Variform, 4th Power Hull*	-	18000
Armour	*Metabond Armour 6*	2700	4050
Gravity Engines	*Gravity Engines-3*	8100	8100
Planing Engines	*Planing Engines-4*	36000	25200
Power Plant	*ZIP Plant*	17530	3506
Bridge	*Command Bridge*	80	450
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Advanced* *Enhanced Signal Processing*	4 2	5 8
Weapons	*Double Null Cannon Turret x 300* *Plasma Barbette x 50* *Medium Ion Cannon Bay x 8* *Medium Missile Bay x 10* *Medium Gravity Cannon Bay x 10* *Torsion Field Projector Spinal Mount*	300 250 800 1000 1000 4000	300 200 200 250 300 1500
Shields	*Repulsor Shield (+10 Armour)*	1800	1080
Ship Systems	*Full Hangar (1565 tons)* *4-ton Launch Tubes x 15* *2.5-ton Launch Tubes x 15* *2.5-ton Recovery Deck x 5* *4-ton Recovery Deck x 5* *250 Heavy Manned Fighters* *300 Space Combat Drones** *Makepoint Workshop x 20* *Medical Bay x 15* *Special Ops Mindscape Instance* *Ship's Locker* *X-Core*	3130 600 375 125 200 - - 120 60 - - 7200	626 300 187.5 62.5 100 2624 2718 40 30 0.02 - 1440
Staterooms	*Advanced Standard x 1000* *Stasis Pods x 200*	4000 20	400 20
Cargo		607	-
Total		**90K**	**71697**

** Half of the space combat drones are fitted with plasma cannon, the other half are fitted with gravity cannon. Also, only half of these drones are ready to fly at a time, while the rest must spend 1D+4 x 20 seconds to unfold from their compact state.*

CREW (MINIMUM)

1 captain
3 pilots
1 astrogator
1 ship sentience
345 engineers
45 mechanics
15 medics
200 gunners
45 administrators
50 officers
250 heavy manned fighter pilots
***Total**: 956*

Hull Points	*45000*

RUNNING COSTS

Maintenance Cost	*MCr5.94/month*
Purchase Cost	*MCr71697.02*

POWER REQUIREMENTS

Variform Hull	*45000*
Advanced Staterooms	*5000*
Basic Ship Systems	*18000*
Shields	*2160*
Gravity Engines	*54000*
Makepoint Workshop	*2000*
Medical Bays	*15*
Planing Engines	*1620000*
Sensors	*8*
Weapons	*3340*
Launch Tubes	*975*
Recovery Decks	*325*
Total	***1,752,045***

PROFIT-CLASS NEW TRADER (T9)

The Profit*-class New Trader is a smaller trading vessel, approximately 50 metres wide, and a workhorse of the New Traders on the Fringe. It has room for an extra crewmember and 2 passengers. It contains a modest cargo hold, and can also carry a 50-ton cargo module between its twin aft booms. The* Profit*-class's variform hull is often customised in striking livery. It can be an excellent starship for characters who are New Traders or other independent merchants.*

Unit	Details	Tons	Cost (MCr)
Hull	*100 tons, Variform, 2nd Power Hull*	-	20
Armour	*Metabond Armour 2*	1	1.5
Gravity Engines	*Gravity Engines-1*[1]	1.5	1.5
Planing Engines	*Planing Engines-3 (2)*[2]	30	14
Power Plant	*ZIP Plant*	15	3
Bridge		10	0.5
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Enhanced Civilian Grade*	1	3
Weapons	*Double Null Cannon Turret*	1	1
Shields	*Haze Field (+5 Armour)*	5	2
Ship Systems	*External cargo mount for 50-ton cargo pod* *Mindscape Instance* *Ship's Locker*	- - -	0.05 - -
Staterooms	*Advanced Standard x 4*	16	2
Cargo	*Optional 50-ton cargo module* *on external mount*	17.5 50	- -
Total		**100** **+50**	

CREW

1 pilot/astrogator *1 engineer/gunner*
1 steward/medic *1 ship sentience*
***Total**: 4*

Hull Points *40*

RUNNING COSTS

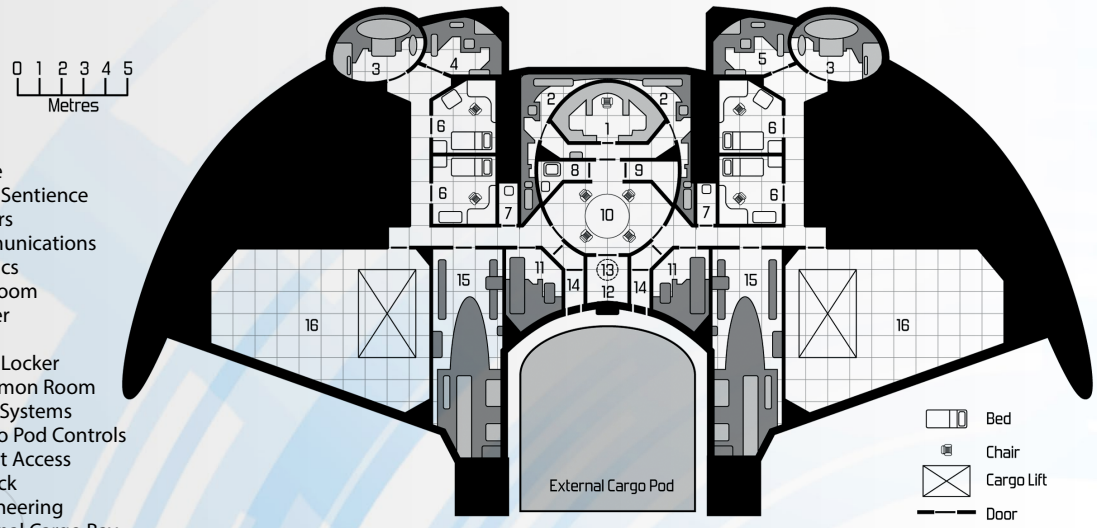
Maintenance Cost *Cr4212/month*
Purchase Cost *MCr50.55*

POWER REQUIREMENTS

Variform Hull	*50*
Advanced Staterooms	*20*
Basic Ship Systems	*20*
Shields	*5*
Gravity Engines	*30*
Planing Engines	*1350*
Sensors	*2*
Weapons	*8*
Total	***1485***

[1] *The gravity engines can provide rating-1 thrust when the ship has attached a 50-ton cargo pod*

[2] *The planing engines are treated as rating-2 when the ship has attached a 50-ton cargo pod*



1. Bridge
2. Ship's Sentience
3. Sensors
4. Communications
5. Avionics
6. Stateroom
7. Fresher
8. Galley
9. Ship's Locker
10. Common Room
11. Ship Systems
12. Cargo Pod Controls
13. Turret Access
14. Airlock
15. Engineering
16. Internal Cargo Bay

PROSPECTOR-CLASS MINING VESSEL (T9)

These asteroid mining vessels can be found in accretion disks, asteroid belts, molecular clouds, and protoplanets all across inhabited space. They often have small crews, sometimes only a single person in addition to the ship sentience. Some are set up specifically for use by small crews made up of several Hydragand and a single Dezimeer and are entirely unpressurised. However, most versions are designed for more typical transhuman occupants. characters who are New Traders or other independent merchants.

Unit	Details	Tons	Cost (MCr)
Hull	*400 tons, 2nd Power Variform Hull*	-	80
Armour	*Metabond Armour 2*	4	7.5
Gravity Engines	*Gravity Engines 1*	4	4
Planing Engines	*Planing Engines 2*	80	56
Power Plant	*ZIP Plant*	42	8.4
Bridge		20	2
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Improved Grade, Enhanced Signal Processing, Mineral Detection Suite*	5	17
Weapons	*Double Null Cannon Turret, Laser Drill turret*	2	1.15
Shields	*Haze Field (+5 Armour)*	5	2
Ship Systems	*Makepoint Workshop* *Mindscape Instance* *Mineral Refinery (TL 13/T8)*[1] *Mining Drones x 5* *Ship's Locker*	6 - 15 10 -	2 - 30 1 -
Staterooms	*Advanced Standard x 5*	20	2.5
Cargo		185	-
Total		**400**	**213.55**

[1] *See* **High Guard**, *page 61*

CREW

1 pilot/astrogator
1 engineer/mechanic
2 gunners/drone operators
1 cargo master/refinery operator
1 ship sentience
***Total**: 6*

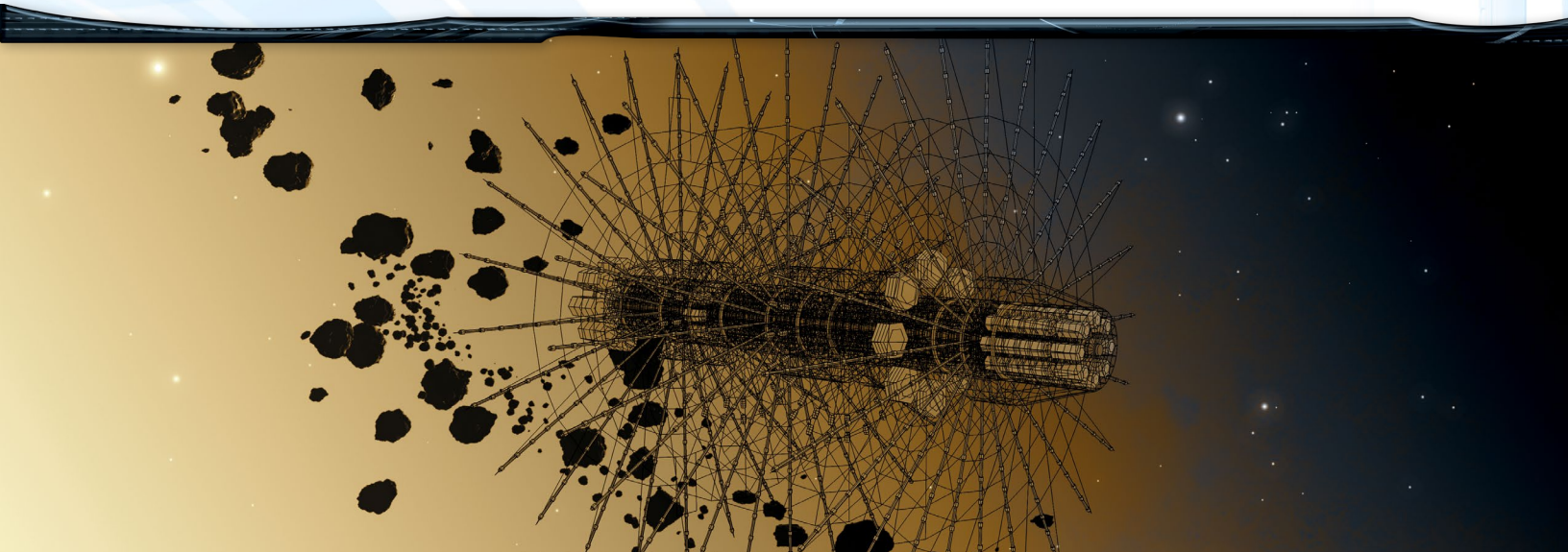
Hull Points *160*

RUNNING COSTS

Maintenance Cost	*Cr17796/month*
Purchase Cost	*MCr213.55*

POWER REQUIREMENTS

Variform Hull	*200*
Advanced Staterooms	*25*
Basic Ship Systems	*80*
Shields	*5*
Gravity Engines	*80*
Mineral Refinery	*15*
Planing Engines	*3600*
Sensors	*6*
Weapons	*12*
Makepoint Workshop	*100*
Total	***4133***



KEYNES-CLASS SUBSIDISED FREIGHTER (T9)

This is one of the larger small-scale trading vessels. It often belongs to independent crews and contractors, but Space Force or the Transport and Exploration Ministry usually tasks the Keynes*-class subsidised freighter with transporting essential freight, products, and information to backwaters on otherwise unviable routes. Larger than the* Adam Smith*-class, the* Keynes *has up to two to three dozen crew, often a majority of independents, perhaps with a small number of Pansectorate or instrumentality representatives. This ship also occasionally carries passengers, but they either travel in stasis or must deal with accommodations identical to those used by the crew.*

Unit	Details	Tons	Cost (MCr)
Hull	*500 tons, 2nd Power Hull*	-	25
Armour	*Metabond Armour 2*	5	7.5
Gravity Engines	*Gravity Engines-1*	5	5
Planing Engines	*Planing Engines-2*	100	70
Power Plant	*ZIP Plant*	50	10
Bridge		20	2.5
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Enhanced Civilian Grade*	1	3
Weapons	*Double Null Cannon Turret x 2*	2	2
Shields	*Haze Field (+5 Armour)*	5	2
Ship Systems	*Mindscape Instance* *Ship's Locker* *Makepoint Workshop*	- - 6	2 - -
Staterooms	*Advanced Standard x 20* *Stasis berths x 20*	80 5	10 0.2
Cargo		219	-
Total		**500**	**139.2**

CREW

1 pilot/astrogator — *1 steward/medic*
1 engineer/gunner — *1 ship sentience*
***Total**: 4*

Hull Points *60*

RUNNING COSTS

Maintenance Cost — *Cr5518/month*
Purchase Cost — *MCr66.22*

POWER REQUIREMENTS

Advanced Staterooms	*30*
Basic Ship Systems	*30*
Shields	*5*
Gravity Engines	*60*
Planing Engines	*2025*
Sensors	*3*
Weapons	*8*
Total	***2161***

SPACE COMBAT DRONE (T9)

Used extensively in the Venu War, these fast, heavily armoured combat drones are controlled by either ship sentiences or gunner-pilots using technopsi. They are fitted with either a dual plasma cannon or a gravity cannon and in large numbers proved to be highly effective against most threats, but were less so against the countermeasures used by Venu fleets.

Unit	Details	Tons	Cost (MCr)
Hull	*2.5 tons, Variform, Superior Stealth, 0 Power Hull*	-	1
Armour	*Metabond Armour 8*	0.1	0.15
Gravity Engines	*Gravity Engines-5*	0.625	0.625
Power Plant	*ZIP Plant*	0.175	0.035
Ship Sentience	*Uncrewed Core Corpus*	0.1	-
Sensors	*Compact Military Grade*	0.5	5
Weapons	*Double Plasma Gun Turret or[1] Gravity Cannon*	1	2 or 2.5
Ship Systems	*Mindscape Instance*	-	-
Total		**2.5**	**8.81 / 9.31**

[1] This ship has either a dual plasma turret or a single gravity cannon, but cannot mount both

CREW

1 ship sentience or basic sentience
***Total**: 1*

Hull Points *1*

RUNNING COSTS

Maintenance Cost — *Cr734/month or Cr776/month*
Purchase Cost — *MCr8.81 or 9.31*

POWER REQUIREMENTS

Variform Hull	*1.25*
Basic Ship Systems	*0.5*
Gravity Engines	*2.5*
Sensors	*3*
Weapons	*8 or 6*
Total	***15.25 or 13.25***

Starship

REFUSAL-CLASS QUARANTINE ENFORCER (T9)

This version of the System Defense Boat is known as a Refusal-class Quarantine Enforcer. *It replaces the gravity cannon bays with missile bays and adds a Superior Stealth Hull coating. It is specifically designed to enforce quarantines and relies on stealth and surprise to swiftly defeat targets.*

Unit	Details	Tons	Cost (MCr)
Hull	*400 tons, Superior Stealth, 2nd Power Hull*	-	140
Armour	*Metabond Armour 10*	20	30
Gravity Engines	*Gravity Engines-4*	64	64
Power Plant	*ZIP Plant*	8	1.4
Bridge		20	2.5
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Advanced with Rapid Deployment Extension Array*	12	25
Weapons	*Plasma Small Bay* *Missile Small Bay x 2* *Tractor Beam Barbette*	50 100 5	8 24 6
Shields	*Repulsor Shield (+10 Armour)* *Stealth Field*	10 7	6 3
Ship Systems	*Ship's Locker* *Makepoint Workshop* *Mindscape Instance*	- 6 -	- 2 -
Staterooms	*Advanced Standard x 15* *Stasis Pods x 3*	60 3	7.5 0.3
Cargo		33	-
Total		**400**	**319.7**

CREW

1 captain
3 pilots
1 engineer
1 mechanic
1 medic
6 gunners
1 administrator
1 officer
***Total**: 15*

Hull Points	*160*

RUNNING COSTS

Maintenance Cost	*Cr26642/month*
Purchase Cost	*MCr319.7*

POWER REQUIREMENTS

Advanced Staterooms	*70*
Basic Ship Systems	*80*
Shields	*35*
Gravity Engines	*320*
Makepoint Workshop	*100*
Sensors	*18*
Weapons	*60*
Total	***683***

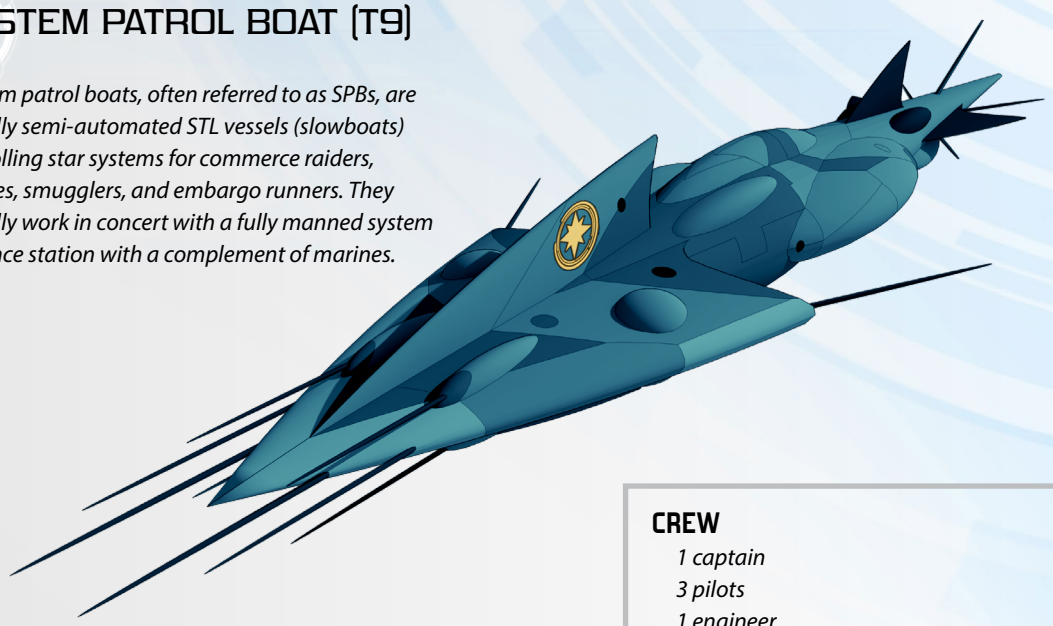
Space Combat Drone Conflicts

Space combat drones are a major component in Commonality starship battles, used instead of larger manned fighters. They're an armed, mobile, ablative "shield" intercepting big gun ordnance and enemy fighters and attacking mother ships directly. Starship combats not involving drones are generally small-scale encounters.

Commonality space combat has often felt cold and distant, without the immediate danger and "grittiness" of manned fighter dogfights, but since the Stop-Start War (150 NCE) the Commonality has been developing fully synthetic and even manned fighters along the Venu frontier, and this is changing.

SYSTEM PATROL BOAT (T9)

System patrol boats, often referred to as SPBs, are usually semi-automated STL vessels (slowboats) patrolling star systems for commerce raiders, pirates, smugglers, and embargo runners. They usually work in concert with a fully manned system defence station with a complement of marines.



Starship

Unit	Details	Tons	Cost (MCr)
Hull	*400 tons, Stealth, 2nd Power Hull*	-	60
Armour	*Metabond Armour 10*	20	30
Gravity Engines	*Gravity Engines-4*	64	64
Power Plant	*ZIP Plant*	8	1.6
Bridge		20	2.5
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Advanced with Rapid Deployment Extension Array*	12	25
Weapons	*Plasma Small Bay* *Gravity Cannon Small Bay x 2* *Tractor Beam Barbette*	50 100 5	8 30 6
Shields	*Repulsor Shield (+10 Armour)* *Stealth Field*	10 7	6 3
Ship Systems	*Ship's Locker* *Makepoint Workshop* *Mindscape Instance*	- 6 -	- 2 -
Staterooms	*Advanced Standard x 15* *Stasis Pods x 3*	60 3	7.5 0.3
Cargo		33	-
Total		**400**	**245.9**

CREW

1 captain
3 pilots
1 engineer
1 mechanic
1 medic
6 gunners
1 administrator
1 officer
***Total**: 15*

Hull Points	*160*

RUNNING COSTS

Maintenance Cost	*Cr20492/month*
Purchase Cost	*MCr245.9*

POWER REQUIREMENTS

Advanced Staterooms	*70*
Basic Ship Systems	*80*
Shields	*35*
Gravity Engines	*320*
Makepoint Workshop	*100*
Sensors	*18*
Weapons	*150*
Total	***773***

SENTIENT ALLIANCE SHIPS

The Sentient Alliance is a close ally of the Commonality, and it also sits between the Commonality and the Venu, and adjoins the Q-Zone separating the Venu from the Commonality. As a result, the Commonality has provided the Sentient Alliance with a naval force primarily consisting of older naval vessels and obsolete exploratory vessels refitted for combat. These ships are no match for the state-of-the-art Commonality navy, but they provide moderate protection against Venu attack and are more than sufficient to deter most raiders.

CAT'S CLAW (T9)

These converted Wayland*-class explorers (obsolete in the Commonality) are used for fast patrol work in the Sentient Alliance, and are rapidly becoming its signature vessel. They have a crew of up to 20 naval personnel, plus a dozen marines for boarding actions.*

Unit	Details	Tons	Cost (MCr)
Hull	*400 tons, Streamlined Hull*	-	24
Armour	*Metabond Armour 2*	4	6
Gravity Engines	*Gravity Engines-3*	36	36
Planing Engines	*Planing Engines-3*	120	84
Power Plant	*ZIP Plant*	60	12
Bridge		20	2
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Enhanced Military Grade*	2	4
Weapons	*Double Null Cannon* *Turret x2* *Missile Barbette* *Torpedo Barbette*	2 5 5	2 4 3
Shields	*Haze Field (+5 Armour)*	5	2
Ship Systems	*Mindscape Instance* *Ship's Locker* *Breaching Tube* *24 Missiles* *12 torpedoes*	- - 3 2 4	- - 3 0.5 0.6
Staterooms	*Advanced Standard x 22*	88	11
Cargo		42	-
Total		**400**	**194.1**

CREW

1 captain	*3 pilots*
1 astrogator	*1 ship sentience*
2 engineers	*1 mechanic*
1 medic	*3 gunners*
1 administrator	*1 officer*
12 marines	***Total**: 27*
Hull Points	*160*

RUNNING COSTS

Maintenance Cost	*Cr16175/month*
Purchase Cost	*MCr194.1*

POWER REQUIREMENTS

Advanced Staterooms	*100*
Basic Ship Systems	*80*
Shields	*5*
Gravity Engines	*240*
Planing Engines	*5400*
Sensors	*6*
Weapons	*18*
Total	***5849***

SENTIENT ALLIANCE SERPENT STRIKE SYSTEM DEFENDER (T9)

These converted Commonality fast couriers are used in system defence, and have a decent strike capability for their size. They have a crew of up to 2 dozen naval personnel.

Unit	Details	Tons	Cost (MCr)
Hull	*200 tons Hull*	-	10
Armour	*Metabond Armour 2*	2	3
Gravity Engines	*Gravity Engines-3*	18	18
Planing Engines	*Planing Engines-2*	40	28
Power Plant	*ZIP Plant*	22	4.4
Bridge		20	1
Ship Sentience	*Large Core Corpus*	2	-
Sensors	*Enhanced Military Grade*	2	4
Weapons	*Double Null Cannon Turret* *Plasma Barbette*	1 5	1 4
Shields	*Haze Field (+5 Armour)*	5	2
Ship Systems	*Mindscape Instance* *Ship's Locker*	- -	- -
Staterooms	*Advanced Standard x 16*	64	8
Cargo		19	-
Total		**200**	**83.4**

CREW

1 captain	*3 pilots*
1 astrogator	*1 ship sentience*
1 engineer	*1 mechanic*
1 medic	*2 gunners*
1 administrator	
***Total**: 12*	

Hull Points	*80*

RUNNING COSTS

Maintenance Cost	*Cr6950/month*
Purchase Cost	*MCr83.4*

POWER REQUIREMENTS

Advanced Staterooms	*80*
Basic Ship Systems	*40*
Shields	*5*
Gravity Engines	*120*
Planing Engines	*1800*
Sensors	*3*
Weapons	*20*
Total	***2068***

Starship

VENU STARSHIPS

Venu ships are more primitive than Commonality vessels, and often downright dangerous. Reverse engineered from captured Commonality tech less than 80 years ago, they are beyond what Venu society can easily cope with, and it's a miracle they operate at all. Their unstable and radioactive dirt drive makes them death-traps in emergencies, especially when opposed by the latest Commonality torsion field projector technology.

The standard Venu starship weapon is an unstable disruptor cannon nicknamed the Dirty Mary. Ships have inefficient

Starship

VENU ALPHA WOLF INSERTION SHIP (T7)

A multi-purpose vessel analogous to the Commonality fast courier, often intercepted on espionage missions within the Commonality. It has a core crew of 4, including a single brainjack, and can carry 10 additional crew under cramped conditions.

Unit	Details	Tons	Cost (MCr)
Hull	*150 tons, Streamlined, Emissions Absorption Grid, Stealth, 2nd Power Hull*	3	30
Armour	*Plasteel Armour 6*	11.25	2.7
Gravity Engines	*Gravity Engines-3*	13.5	13.5
Planing Engines	*Venu Dirt Drive-1*	30	60
Power Plant	*Venu ZIP Plant*	15	9
Bridge		10	1
Ship Sentience	*Venu Brainjack Couch*	1	1
Sensors	*Military Grade*	2	4
Weapons	*Venu Disruptor Cannon Barbette*	5	5
Shields	*Venu Disruptor Shield (+5 Armour)*	8	3
Ship Systems	*Ship's Locker*		-
Staterooms	*Standard x 4* *Barracks x 10*	16 20	2 1
Cargo		15.25	-
Total		**150**	**132.2**

CREW

1 captain
1 astrogator / n-pilot / gunner
1 brainjack / 2-pilot
1 engineer / mechanic
2 gunners
9 marines
***Total**: 14*

Hull Points	*60*

RUNNING COSTS

Maintenance Cost	*Cr11433/month*
Purchase Cost	*MCr137.2*

POWER REQUIREMENTS

Basic Ship Systems	*30*
Shields	*8*
Gravity Engines	*90*
Planing Engines	*675*
Sensors	*2*
Weapons	*15*
Total	***820***

disruptor shields, relying mostly on physical armour and countermeasures. They have no ship sentiences, and only rudimentary AI. For 2-space navigation they use human cyborg-pilots wired directly into their ships; these **brainjacks** frequently burn out and go insane—most are basket cases even on good days. The following ships are common Venu attack vessels, which are also sometimes leased to their closest allies.

Starship

VENU DESTROYER (T7)

The Venu destroyer is the chief strike vessel of any Venu naval engagement. Fitted with multiple forward Dirty Mary disruptor cannon as well as missiles, the Venu destroyer is a dedicated attack ship, with few other functions. They're incapable of atmospheric ops—their gravity engines just aren't up to it—but are relatively manoeuvrable in fleet actions.

Unit	Details	Tons	Cost (MCr)
Hull	*3000 tons, 3rd Power Hull*	-	150
Armour	*Plasteel Armour 6*	225	67.5
Gravity Engines	*Gravity Engines-3*	270	270
Planing Engines	*Venu Dirt Drive-2*	900	1800
Power Plant	*Venu ZIP Plant*	500	300
Bridge		60	15
Brainjack	*Venu Brainjack Couch*	1	1
Sensors	*Military Grade*	2	4
Weapons	*Double Null Cannon Turret x14* *Venu Disruptor Cannon Barbette x8* *Venu Disruptor Cannon Small Bay x2* *Venu Disruptor Cannon Medium Bay x2* *Missile Medium Bay x4*	14 40 100 200 400	14 40 20 50 100
Shields	*Venu Disruptor Shield (+5 Armour)*	48	24
Ship Systems	*Ship's Locker*		-
Staterooms	*Standard x 60*	240	30
Cargo			-
Total		**100**	**2885.5**

CREW

1 captain
3 astrogators / n-pilots
1 brainjack / 2-pilot
13 engineers
6 mechanics
1 medic
62 gunners
10 officers
3 administrators
***Total**: 100*

Hull Points	*1200*

RUNNING COSTS

Maintenance Cost	*Cr240458/month*
Purchase Cost	*MCr2885.5*

POWER REQUIREMENTS

Basic Ship Systems	*600*
Shields	*48*
Gravity Engines	*1800*
Planing Engines	*27000*
Sensors	*2*
Weapons	*472*
Total	***29922***

VENU WARHAWK-CLASS STRIKE SHIP (T7)

The Venu Warhawk is one of the most recognisable Venu attack ships. It's unreliable and leaks z-radiation like a sieve. However, it's also fast and deadly. A little larger than a Mindjammer or Profit*-class new trader, it has a crew of at least 4 wearing the famous "raptor masks", plus room for a complement of Venu mutant marines and 4 officers. The ventral mount is the legendary Dirty Mary disruptor cannon, hooked directly into the unstable dirt drive. The Warhawk is thought to be the transport ship of choice for the "Dark Radiance", the cult behind recent Venu technology leaps (and all that z-radiation).*

CREW

1 captain
1 astrogator / n-pilot
1 brainjack / 2-pilot
1 engineer / mechanic
4 gunners
12 marines
***Total**: 20*

Hull Points	*120*

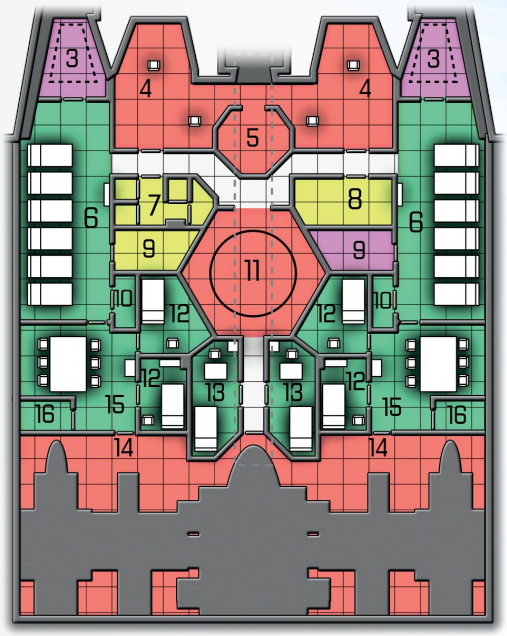
RUNNING COSTS

Maintenance Cost	*Cr25479/month*
Purchase Cost	*MCr305.75*

POWER REQUIREMENTS

Basic Ship Systems	*60*
Shields	*8*
Gravity Engines	*240*
Planing Engines	*2700*
Sensors	*2*
Weapons	*17*
Total	***3027***

Unit	Details	Tons	Cost (MCr)
Hull	*300 tons, Streamlined, 2nd Power Hull*	-	18
Armour	*Plasteel Armour 6*	22.5	6.75
Gravity Engines	*Gravity Engines-4*	48	48
Planing Engines	*Venu Dirt Drive-2*	90	180
Power Plant	*Venu ZIP Plant*	51	30.6
Bridge		20	1.5
Brainjack	*Venu Brainjack Couch*	1	1
Sensors	*Military Grade*	2	4
Weapons	*Venu Disruptor Cannon Barbette* *Missile Turret x 2* *12 additional missiles*	5 2 1	5 1.5 0.45
Shields	*Venu Disruptor Shield (+5 Armour)*	8	3
Ship Systems	*Ship's Locker*	-	-
Staterooms	*Standard x 6* *Barracks x 12*	24 24	2 1.2
Cargo		1.5	-
Total		**100**	**303**



1. AP Weapon Mounts
2. Sensor Array
3. Airlock / Troop Ramp
4. Bridge
5. Brainjack Pilot Cocoon
6. Barracks
7. Holding Cells
8. Pain Chamber
9. Tribute / Stores Rooms
10. Fresher
11. Honour Room
12. Crew Quarters
13. Officers Quarters
14. Engineering
15. Eating Area
16. Galley

CHAPTER NINE
ORGANISATIONS

"Out of context, the mandate of the Security and Cultural Integrity Instrumentality sounded bookish, even benign: to ensure, by any means necessary, the cultural stability of the New Commonality of Humankind. It was that coy 'by any means necessary' which meant the workplace was less a venue for diplomatic soirees and more one where aggressive deployment of body armour and disintegrator rifles was often the order of the day..."

WHAT IS AN ORGANISATION?

While characters, starships, and vehicles are concrete, physical entities, organisations are more abstract, representing assemblies of people and resources defined more by their cohesion and ability to impose their will on their surroundings. Example organisations include governments, corporacies, communities, and instrumentalities like SCI Force. **Cultures**, a key element of ***Mindjammer***, are a special kind of organisation, dealt with in their own chapter (page 216). This chapter details both the characteristics of organisations and how they can assist, and hinder, characters.

Joining an Organisation

Characters can join an organisation during character creation by: making a successful Connections check during a career term and choosing an organisation; rolling "Organisation" on a mustering out roll; or choosing it as a benefit in a longevity package. Two or more players can choose to have their characters belong to the same organisation, even if they've neither shared the same career nor established a mutual connection before play starts. Having all your player characters belong to the same organisation is an excellent way to unify your campaign and provide characters with common ground.

Characters are typically employed by one or more organisations during their careers during character creation, but once play begins most characters who've worked for an

organisation in this way instead switch to being part-time consultants and operatives. However, the choice of whether a character still belongs to an organisation full-time, or is now a valued consultant and free-lance operative, is always up to the player.

ORGANISATION CHARACTERISTICS

Every organisation has three characteristics: **Tech Index, Scale**, and **Reach**. **Tech Index** measures the technological sophistication of the organisation. Except among the Venu and the Far Havens, any organisation which spans more than a single star system (in game terms, those with least Reach 7 (Interplanetary): see below) has a Tech Index of T9 or T10. **Scale** is a measure of how large and powerful the organisation is, and how many members it has. **Reach** determines the size of area the organisation can exert its influence over. Scale and Reach are described in greater detail below.

In addition, every organisation has three **memes** (page 81).

Organisation Memes

An organisation's memes are closely associated with its goals and methods. An organisation generally has two memes related to its goals and ideology, and one to the methods it uses. Typical examples of organisational memes are:

MEMES ASSOCIATED WITH GOALS AND IDEOLOGY

- *Diversity Enhances Freedom.*
- *Safety and Harmony Require Conformity.*
- *Profit Is the Only Valid Motive.*
- *Shield the Commonality From Cultural Contamination.*
- *Help Everyone Achieve Their Full Potential.*
- *Teach Everyone the Lessons We've Learned.*
- *End Poverty and Ignorance.*
- *Prevent Wars by Any Means Necessary.*
- *Help All of Transhumanity Transcend.*

MEMES ASSOCIATED WITH METHODS

- *The Ends Justify the Means.*
- *Violent Means Yield Violent Results.*
- *Might Makes Right.*
- *Everyone Has Their Price.*
- *Humane Goals Require Humane Methods.*
- *Victory Is Achieved by Performing Acts Your Opponent Can't or Won't.*

Organisation Scale

How large an organisation is and how many people and resources it controls are measured by its Scale characteristic. Organisations have a Scale between 1 and 9. See Table 9-1: Organisation Scale. Larger organisations are more powerful than smaller ones, and also have a greater range of capabilities at their disposal.

NESTED ORGANISATIONS

Larger organisations can contain smaller ones. Such a smaller organisation is called a **nested organisation**. A nested organisation must be within its parent organisation's **Reach** (see below). For example, a single corporacy might cover an entire sector, with different divisions for each subsector, and smaller departments for each inhabited star system in each subsector. These divisions and departments are nested organisations within the larger corporacy. Characters who belong to the same organisation often belong to different nested organisations within the larger organisation that they all belong to.

Table 9-1: Organisation Scale

Scale	Examples	Maximum Members
1 (Large)	Small associations, companies, and communities; the world government of a sparsely populated world; a small department of a corporacy.	Up to 100.
2 (Huge)	Small settlements or "towns"; small armies; a single division of a small corporacy or instrumentality; a system government.	Up to 10000.
3 (Enormous)	Large cities; a single division of a medium corporacy or instrumentality; the entire governmental apparatus of a Successor State.	Up to 1 million.
4 (Regional)	Metropolises, metroplexes, and small nations of tens of millions of people; a proto-corporacy.	Up to 100 million.
5 (Continental)	Large nations up to several billion people; small worlds; a small corporacy or instrumentality.	Up to 10 billion.
6 (Planetary)	A whole world community; a corporacy world; a large Commonality intrumentality or ministry.	Up to 100 billion.
7 (Interplanetary)	A large corporacy like the Chembu Genurgy Corporacy; a cluster, a developed star system.	Up to 1 trillion.
8 (Interstellar)	An organisation on the scale of the Venu Empire or the Chembu Autonomous Region.	Up to 100 trillion.
9 (Galactic)	The entire Commonality.	Up to 1000 tn.

Organisation Reach

An organisation's **Reach** represents how far its network of offices, monitoring stations, laboratories, and manufactories extends. A small organisation can have a large Reach, or a large organisation may only be present in its own area. All known organisations have a Reach between 1 and 9, but this can theoretically extend to 10 or higher; see Table 9-2: Organisation Reach. There's usually a relationship between Scale and Reach; typically, an organisation's Reach is 0-3 points higher than its Scale. An organisation with Scale 5 (Continental) may have a Reach as low as 5 (Continental), or as high as 8 (Interstellar), but will rarely have Reach 9 (Galactic).

Organisation Points

Each time you roll or choose an organisation and decide to increase your connection to an existing organisation instead of creating a connection to a new one, add +2 organisation points (OPs) to your total for that organisation; the first time you select an organisation, it has 2 OP, meaning you have a basic and limited connection to that organisation. Because achievement in your career also brings advancement in an organisation, every time you gain a new rank (including rank 1 and any commissions), you also add +2 OP to any one organisation; this doesn't have to be an organisation related to your current career (see below). At the end of character creation, total the OP for each of your organisations; then, divide these points between the organisation's Scale and Reach. You must assign at least 1 point to each, and you should have a good reason if you want an organisation's Reach to exceed its Scale by more than 3 points, or be more than 1 point smaller.

You can continue to add points to a single organisation even if your character changes careers. Large organisations usually contain many diverse nested divisions; a diplomat who later worked in security might be part of a cultural contact organisation which has its own private security, or perhaps a corporacy that does both. Even if two characters are connected to the same organisation, if one is connected to a Scale 2, Reach 6 organisation, and the other is connected to a Scale 4, Reach 7 organisation, then the first character has a connection to a nested organisation that is a single department of the larger organisation the second character is connected to. As a result, the character with a connection to the Scale 2, Reach 6 organisation gains fewer benefits from their connection to the organisation than the character that is connected to the Scale 4, Reach 7 organisation.

Table 9-2: Organisation Reach

Reach	Reach extends over…	Example
1 (Large)	Interpersonal group, small starship.	Family faction.
2 (Huge)	Restricted area of single planet, large starship.	Small army.
3 (Enormous)	Large local area, city, sky city, small starship fleet.	Medium army, small company.
4 (Regional)	Nation; part of continent / small moon; star city; starship fleet.	Large army, medium company.
5 (Continental)	Part of planet or star system; small moon.	Large company.
6 (Planetary)	Entire planet or star system.	Proto-corporacy.
7 (Interplanetary)	Local octant or maybe subsector.	Small corporacy.
8 (Interstellar)	Local sector or province.	Pansectorate, medium corporacy, interstellar polity (Sentient Alliance, Venu).
9 (Galactic)	Whole Commonality	Instrumentality, large corporacy, Commonality govt.

SERVICES PROVIDED BY ORGANISATIONS

Organisations aid their members and people who work with them, assisting them in performing missions for the organisation and also providing them with goods and services at other times. The most common and regular service which organisations provide to members and contractors is **income**; in return for being available for missions and performing similar duties, characters obtain a modest stipend. Characters must be within the organisation's Reach to collect this stipend. This income is as follows:

- **Disinterested Resource Allocation and Interested Resource Allocation:** 1 Resource Point (RP) x SOC/2 (round up) per year (adjusted for SOC for Interested Resource Allocation).
- **Confiscation, Planned Economy, Unregulated Money Economy, and Regulated Money Economy:** Cr1000 x SOC/2 (round) per month.
- **Barter:** Goods worth Cr1000 x SOC/2 (round) per month.

See Economic Systems on page 208 for more on Resource Points (RP) and acquiring goods in different economies.

Organisational Die Modifiers

Organisations can provide DMs (die modifiers) to appropriate checks when a character belonging to an organisation calls upon it for help. The assistance may be provided directly by the organisation itself, or indirectly by the organisation exerting its influence, calling in favours, etc. The maximum DM any organisation can provide is equal to its Scale. A Scale 2 (Huge) organisation can provide a DM+2, while a Scale 5 (Enormous) organisation can provide a DM+5.

To gain this die modifier, the task must be one that the

organisation is willing and able to assist in. For example, although an organisation might be able to help a character gain a good price when selling a rare alien artefact, it would need to have a reason to provide the character with that kind of assistance. An organisation might help if the character needed funds to pursue a goal the organisation approved of, or if the artefact had been sold to a broker who dealt with smugglers the organisation wanted to contact or arrest.

THE LIMITATIONS OF REACH

An organisation's Reach limits where it can provide assistance. Within the area covered by its Reach, an organisation can its services without penalty. A Scale 3 (Enormous), Reach 6 (Planetary) organisation could provide a DM+3 to appropriate checks anywhere on the planet or in the star system where it was located.

Organisations can aid characters beyond their Reach, but less effectively. For each point over its Reach, apply a DM-2 to the aid an organisation provides. Thus, the same organisation could only provide a DM+1 to characters working in the same octant or subsector (Reach 7), and could not provide any aid beyond this point. Similarly, a Scale 5 (Continental), Reach 7 (Interplanetary) organisation could provide a DM+5 to characters working in the same octant or subsector (Reach 7), a DM+3 to characters working in the same sector or province (Reach 8), and a DM+1 to characters anywhere within the Commonality (Reach 9).

ORGANISATION COMPETENCIES

Every organisation possesses competencies related to its goals, and provides lower quality assistance when dealing with situations outside those competencies. For example, a military organisation may provide excellent assistance with checks involving Tactics, Demolitions, repairing or sabotaging vehicles and weapons, Mindscape-based warfare, and a wide variety of similar tasks. However, they would be somewhat less useful helping someone bribe a public figure or negotiate for the best price when selling an alien artifact. When assisting with tasks that are outside the organisation's competencies, reduce the total die modifier by half (round down). In all cases, make this reduction **after** limitations based on reach have been included in the total DM.

An organisation possesses a number of competencies equal to its Scale. Determining competencies is a subjective judgment on the part of the referee, and should be based upon the organisation's purpose and, when relevant, its TI. For example, an espionage agency would be able to provide assistance with Demolitions, Mindscape hacking (TI permitting), Tactics, and even Diplomacy checks, but would clearly be less capable when assisting with Art or Science checks.

Note that the skill rules apply as normal when a character calls upon one of his organisations for assistance. If he doesn't personally possess the skill he is calling upon the organisation for, his check incurs an automatic DM-3.

OTHER LIMITATIONS ON ORGANISATION DMs

Organisations can't provide die modifiers to all checks. They can't aid in immediate checks involving physical actions, like picking a lock or repairing a damaged flyer, unless the character has somehow had a chance to ask the organisation for information about that particular lock or flyer prior to the check. Likewise, the only way an organisation can help a character with a check related to gathering information or convincing someone to provide aid is if the character making the check has already asked the organisation for aid with that task, and has also had time to wait for a response. Many checks are simply not reasonable for organisations to help with in any fashion; an organisation can't help someone lift a heavy object, shoot someone with a blaster, or outrun someone in a footrace.

As well as using common sense to determine the checks an organisation can assist with, a character must provide an organisation with situational information at least a few rounds prior to a check involving gathering information or working with a device; and at least 5 minutes prior to a check to persuade, blackmail, or otherwise convince someone to perform an action. Obtaining DMs for more difficult or complex situations may require still more time.

The time needed for an organisation to respond increases if the character is in an area too far beyond the organisation's Reach to permit easy communication; for example, if the character is in a star system beyond the organisation's Reach. To gain such a DM, the character must have requested assistance **before** travelling outside the organisation's Reach, or they must wait the required time for the response to arrive, which can take anywhere from an hour or more (if the organisation is on another planet in the same star system) to several days or weeks (if the organisation is located in a different star system).

List of Services

Organisations can provide a wide variety of goods and services to their members, although they typically want something in return (see **Paying For Goods and Services** on page 190 below). There are three categories of goods and services: **standard**, **expensive**, and **extravagant**. All organisations can provide standard and expensive goods and services, but only those of Scale 4 (Regional) and above can provide extravagant. Goods and services must always be something the organisation is willing to provide.

Organisations can only provide goods and services beyond their Reach to those locations where they also provide at least a DM+1; doing so also takes longer. A Scale 3 (Enormous), Reach 6 (Planetary) organisation can rapidly provide goods and services within the same star system. It can also do so within the same octant or subsector (Reach 7), but travel time from the organisation's star system to the destination must also be figured in. However, the same organisation cannot provide goods and services outside its subsector, as that would reduce its DM below zero.

STANDARD GOODS AND SERVICES

Organisations collect and organise easily accessible information, and assign basic sentiences and local experts to perform routine simulations for members and associates without cost. They also provide straightforward services, such as transport, lodging, the loan of secure virtualities and avatars, and local cultural, diplomatic, and legal advice.

Organisations automatically provide these services to characters actively on missions for them, and may also do so when characters are performing missions which support one of the organisation's memes. Organisations may also provide these services at other times, but will periodically ask the recipient to perform minor tasks in return, such as transporting packages between worlds, or providing skilled expertise in a low risk environment. Services provided rarely last more than a day or two, and include: cultural, diplomatic, and legal advice; reviewing scientific research for errors; checking a facility's security procedures; or routine medical treatment or genurgic modification. DMs to bring about **reliable cultural manipulation** (page 223) or real (not fake) **crisis resolution** (page 225) to promote cultural change are also standard services.

EXPENSIVE GOODS AND SERVICES

These include item up to Cr400,000 in value, or loans of extravagant items or vehicles for less than a month. DMs on negotiations with important cultural or political figures, acquiring secret or restricted information, or performing **radical cultural manipulation** (page 224) also count as expensive services.

Expensive services also include: the organisation performing difficult, dangerous work like hostage negotiation and ransom or rescue; extraction from capture; discrete rapid transport within and between star systems; negotiating bribes; and providing safe houses for wanted fugitives. Organisations will only provide these services to the character and up to half a dozen companions, or a similar number of strangers that the character accepts full responsibility for. Expensive services may also include kidnappings or assassinations of low- to moderate-importance figures, such as a city governor or the head of a small proto-corporacy. Providing these services beyond the organisation's Reach counts as two expensive services.

EXTRAVAGANT GOODS AND SERVICES

Only organisations of Scale 4 (Regional) and above can provide

extravagant goods and services. They include: a starship that the organisation asks to serve the character for at least a year; a vast and lavish dwelling or some other item costing up to several dozen MCr that the character gets to keep or can use for at least several months; direct assistance and DMs for kidnapping or assassinating world or star system leaders or similarly important figures; destabilising a planetary government or economy; or carrying out a single instance of **fake crisis resolution (false flags)** (page 227) on a culture. Unlike expensive goods and services, organisations assist, but are unwilling to perform these services for the requesting character, who must be the principal agent accomplishing the goal. Organisations capable of providing extravagant goods and services can also provide the character with 1 OP for any nested organisation or for any allied organisation within the first organisation's Reach. OPs are never provided without some form of payment being required, unless they are a reward for truly exceptional service.

When Organisations Provide Assistance

Organisations provide assistance whenever they send characters on missions, unless the characters request aid too often for tasks they should be able to perform themselves—after all, they're the ones supposed to be actually carrying out the mission! Characters may also request aid for their own independent missions and projects; whether or not the organisation assists depends on whether the character's goals match those of the organisation.

Even when characters are pursuing their own goals, organisations protect their own, and attempt to rescue them if they get into trouble. This may not extend to rescues from justice imposed by governments the organisation considers allies. Moreover, not all organisations can provide all types of aid: some are nonviolent, refusing requests for unequivocal measures (page 117) or military strike teams; others are dedicated to technological uplift of backwards worlds, and refuse requests that would impede progress. All but the most brutal and ruthless organisations refuse requests that would result in mass death or similar horrors.

IF YOUR MISSION ALIGNS WITH AN ORGANISATION'S GOALS AND MEMES

If characters ask for help with a project aligning with one of an organisation's memes, the organisation freely provides standard or expensive assistance, including positive DMs and use of organisation goods and facilities, as long as the characters do not damage or destroy them and return them after the mission.

For example, if the characters want to increase a world's Trade Index by altering its culture's memes to be less hostile to trade, and they request aid from an organisation one of them has a connection to and which has Promoting Trade *as a meme, the organisation freely provides positive DMs and other standard and expensive forms of assistance.*

Characters must justify requests for extravagant assistance. If they can, the organisation provides it without cost; otherwise the characters must pay for it normally. Freely-provided assistance never includes permanent or long-term possession of expensive or extravagant goods, except possibly as an infrequent reward for accomplishing a risky and difficult mission that significantly advances an organisation's goals.

IF YOUR MISSION HAS NO CLEAR RELATIONSHIP TO AN ORGANISATION'S GOALS AND MEMES

In these cases, the organisation never provides expensive or extravagant assistance freely, although it can be persuaded to provide them for a price; see **Paying For Goods and Services** below. However, it will freely provide standard goods and services, except in cases where the characters regularly work against its goals, or avoid paying for the goods and services they request.

IF YOUR MISSION CONFLICTS WITH AN ORGANISATION'S GOALS AND MEMES

In these cases, the organisation refuses aid, even if the characters are willing to pay. However, organisations generally provide their most minimal standard services without question, so character may obtain free lodging, the loan of inexpensive goods, and so on, without having to disclose the nature of their mission.

For example, if the characters want to reduce a world's Trade Index, and they request aid from an organisation which has Promoting Trade *as a meme, the organisation refuses to help. Note that, however, if the characters later need rescue, and promise to abandon their mission, the organisation will rescue them in return for later payment.*

Paying For Goods and Services

Organisations generally request payment in kind for their aid. This means that, in return for an organisation's aid on a character's mission, that organisation may later request the character to perform a mission on its behalf. Example payments in kind include: providing hostage negotiation or rescue; negotiating bribes; providing discrete transport of wanted fugitives to safe houses; and may even include kidnapping or assassinations. More culture-oriented organisations may request characters to help with long-term projects such as the destabilisation of a planetary government, or a single instance of memetic alteration on a culture or sub-culture that encompasses no more than a single star system.

In all these cases, the character will be given a mission or series of missions to perform; expensive requests generally require only a single impressive service to repay, while extravagant requests may entail a commitment lasting several months or even years.

Characters may turn down missions they find morally objectionable, and many organisations maintain records of their members' morals and rarely make requests that a specific individual or group of individuals would object to, unless the

request is particularly urgent and these individuals are the only available option. Characters may also turn down requests because of practical considerations—such as having prior commitments—but can't make a new request for expensive or extravagant aid until they've repaid the outstanding one.

Characters who consistently turn down requests for repayment will find their connection to the organisation weakening, and the organisation becoming less willing to provide aid. This can be remedied by accepting missions, but the characters will be quizzed as to why they refused.

PAYING WITH RP

Characters can also pay for expensive goods and services using **Resource Points (RP)**: see page 210. This means the characters effectively give the organisation access to some of their resource allocation. Borrowing an expensive or extravagant item for a month or less costs a number of RP equal to one percent of the item's full cost: borrowing a MCr2 villa for three weeks would cost 1 RP. However, the characters must return the item in good condition, provide an excellent reason why the item isn't in good condition, or pay for the item. Characters may also pay for expensive DMs in a similar way: each such DM costs 1 RP.

Characters cannot pay for extravagant goods and services using RP.

Organisations and SOC

Organisations can directly affect a character's status and reputation. If a character performs a significant service for an organisation, the organisation may publicise the character's actions (especially if doing so aids the organisation's reputation) and increase his SOC by +1. Additionally, sometimes an organisation requires one of its members to gain greater access to the Commonality's upper echelons, and releases a mixture of actual and exaggerated information, again to boost that members SOC by +1.

Both of these attempts to perform a disinformation campaign to raise a character's SOC are automatically successful, and last for the duration of a single subsequent mission. However, the character in question may also make a Persuade check once that mission is completed to retain the SOC increase indefinitely.

- *To Keep a SOC Increase Resulting From a Disinformation Campaign*:* Very Difficult (12+) Persuade check (1D+1 weeks, SOC).

  ** This check automatically receives an organisational DM and must be performed within the organisation's Reach.*

A character who betrays or fails an organisation sufficiently disastrously may find the opposite happens, **reducing** his SOC by -1. Similarly, an organisation may temporarily lower a character's SOC for undercover missions where the character needs to make the organisation's enemies believe that he has betrayed the organisation, or would be willing to do so. In this case the character's SOC is usually restored after the mission. In both cases, unless the character has actually performed actions sufficiently impressive or ignominious to affect her SOC, the organisation can only change a character's SOC by 1 point every 3 years. The only exception is when restoring lost SOC that an organisation took away as part of an undercover mission. Any action to raise or lower a character's SOC requires 1D+1 weeks of preparation and publicity.

HOSTILE ORGANISATIONS

Organisations can hinder characters just as easily as they can help them. If a character sufficiently offends or annoys someone in a position of power in an organisation, or harms an organisation in some way, then it may retaliate. A retaliating organisation typically interferes in a character's activities by providing negative DMs based on its Scale and Reach, just as with positive DMs.

For example, a hostile Scale 5 (Continental), Reach 7 (Interplanetary) organisation may impose a DM-5 on characters operating in the same octant subsector (Reach 7), a DM-3 to characters working in the same sector or province (Reach 8), or a DM-1 to characters anywhere within the Commonality (Reach 9).

Even powerful organisations can't watch everyone constantly: within an organisation's Reach, these negative DMs apply only to checks to obtain goods or services from organisations closely allied with the hostile organisation. They don't affect other checks, such as those to diagnose a disease, repair a flyer, bargain with an independent local merchant, or situations which the organisation would have no way to affect or even know about.

It requires a substantial effort by an organisation to impose a negative DM beyond its Reach, so much so that organisations typically only do this if they're trying to locate, detain, or interrogate the characters—something that generally only happens if the characters have harmed the organisation or its goals in a **big** way, or possess something that the organisation wants.

Other Hostile Organisation Actions

As well as making life difficult for the characters with negative DMs, hostile organisations can also take more direct action. Most obviously, they may send agents to apprehend or kill the characters, or to steal their possessions (especially items that the characters themselves stole from the organisation…). Organisations may also release information (true or false) about a character that severely harms his reputation and reduces his SOC by -1. However, a character can attempt to resist this effort by attempting to publically deny these allegations. The character must succeed at a Difficult (10+) Admin check (1D days, SOC). Apply the hostile organisation's DM (modified by any reductions for Reach) to this check. The character can also enlist the aid of one of his organisations to provide a positive DM. Success on this check means that the character's reputation and SOC remain unchanged.

CHAPTER TEN
THE NEW COMMONALITY ERA

"Were we on the brink of extinction? I'd say so, yes. Three or four centuries ago, no one had any interest in anything. It was like everything worth knowing had already been known, everything worth doing already done, and a million times over. We were happy enough, with our drugs and our slaves, and our endless diversions. But we were on our way out: something had gone, some zest, some spice, that made it all worthwhile.
"Now you get to live as long as you want, as long as you don't get killed. Life is dangerous again. And, somehow, that suddenly makes it all worth living."

— Kasim Kasah, Technopsi Redactor-in-Chief, Ministry of Evolutionary Planning (Mysore Vallis Chapter), Europa

HISTORY

For millennia humankind spread from Old Earth in great colony ships. Colonies grew in isolation, taking strange and surprising paths, dealing with the challenges of new worlds with whatever lay to hand. Messages from Old Earth took centuries to arrive, and while the stars sang with the songs of men, it was a cacophony, and no interstellar civilisation ever arose.

Two hundred years ago the discovery of 2-space thrust these worlds together after millennia apart. Conflict and chaos reigned. Old Earth, which controlled access to 2-space, prevailed, and the New Commonality Era—also called the Expansionary Era—was declared, the first true interstellar civilisation of humankind. Some worlds still resist, inimical or simply too alien after millennia of divergent evolution, but a new era has begun, revitalising the once decadent cultures of Old Earth. Where money had been unknown for millennia, New Traders now ply the spacelanes with their "Expansionary Era Currency Units"; where Old Earth had been a vast and indulgent garden, explorers now push onto new worlds and bizarre and hazardous environments. It's an age of exploration and invention, a new Golden Age for humankind—the Second Age of Space.

Commonality Prehistory

The Commonality emerges gradually from the dark age which followed the enigmatic Fall of Man twelve millennia ago. Before that there are stories of a prehistoric age of space, but the ancient Cola Station in Old Earth orbit is the only relic from that distant time. Clarity comes with the Autumn Cultures, petty states left over from an era of failed world government.

The Autumn Cultures were the product of a lack of imagination, an inability or unwillingness to tackle the problems which faced humankind—the need to unify, to abandon archaic economic organisation, to embrace the species-level challenge of leaving Old Earth. They marked a growing refusal to mature, a period of stagnation, conflict, and decline.

It's unclear what the Fall of Man was. War, collapse, ecological or economic catastrophe, or all of these things have been suggested, but its consequences are clear: humankind could not cope with the glaciation which followed, and what remained of civilisation fell into savagery. For a thousand years the archaeological record is confused, a succession of tribal migrations, petty tyrants and warlords, and the return of much of Old Earth to wilderness. Anything approximating civilisation appears to have been confined to closed cities; the wilderness became the province of mutants and wildmen, and the leftover war machines of the past.

The first glimmerings of the Commonality that would restore humankind began in Shine. With increasing confidence in climate control, the Shine Commonality pushed back the ice which had frozen the world, and unified it under a benevolent if overbearing rule.

The First Age of Space

The Shine Commonality lasted five hundred years, and culminated in the return of humankind to space and the colonisation of the solar system. By the time the early generation ships left for nearby stars, the Shine Commonality had been reborn as the Commonality of Humankind, and the First Age of Space had begun.

The early colonisation ships were fraught with problems, and there were as many catastrophic failures as successes. Gradually, humankind established toeholds on alien worlds, and with the invention of stasis fields the trickle of humanity to the stars became a flood. The Great Diaspora lasted five thousand years, a constant procession of stasis ships of all sizes, leaving the teeming solar system and its oppressive and regulated worlds for new homes where freedom of expression and alternative forms of belief, identity, and social organisation could be expressed without interference.

Although contact with many colony ships was lost, many reported home, using lightspeed communications taking centuries to announce that, in the depths of space, the stars now sang with the songs of humankind.

Early in the First Age of Space anagathic treatments transformed human society, and as human lifespans began to be measured in many centuries people developed societies which husbanded resources and planned for the future in long-term projects at last. At the same time a deep conservatism began to show in the worlds of Manhome—Old Earth's solar system—and the nearest colony worlds, whose long-lived populations became risk-averse. Uplifted animals performed hazardous or disagreeable jobs, and human society became introspective, concerned with security, long life, and the preservation of memory and the past.

Many disagreed with these tendencies, which nevertheless spurred the ongoing diaspora as people turned their backs on security and introspection for lives of unpredictable vitality on the unknown frontier. This time the new waves of diaspora were not just human, and uplifted animals—the **xenomorphs**—for the first time became significant populations of the new colony worlds.

Eventually even the Commonality's rulers realised the peril facing Old Earth. The Mortality Statutes, which fixed human lifespans at five hundred years, were not principally a response to overpopulation, but rather were born from a fear of stagnation, of the need to refresh the Commonality's meme and gene pools with new blood and ideas, to prevent stagnation and decay. It's still unclear whether they succeeded.

Decline

The diaspora continued for another three millennia, but the Commonality civilisation which developed in Manhome and the dozens of star systems close to Old Earth became old. With the development of early forms of the Mindscape, whole populations seemed to slumber in the exploration of memories and fantastic yet unreal worlds; for centuries, it seemed that the xenomorphs and the new synthetic intelligences, born from Mindscape technologies, carried the flame for the whole Commonality.

Eventually, the diaspora ceased. Occasional ships still left for unknown stars, but by the end of the fifth millennium, energy and enthusiasm seemed to have left humankind. The effort of monitoring slower-than-light contact with far-flung colonies seemed not worth the effort, and the Commonality began to contract, eventually settling on the few dozen star systems close to Old Earth where communications took less than fifty years. Commonality society turned inwards, obsessed with intrigue and ritual. Hand-in-hand with social decay came superstition, and the Commonality proscribed things which disturbed social tranquillity—news and religion and antisocial ideas—and promoted social harmony and quiescence above all. Human society became a gilded cage, its captives drugged and soporific, their long lives ending in pointless and painless euthanasia, all disagreeable jobs done by teeming faceless billions of xenomorphs and synthetics. Stagnation slipped unnoticed into decline, and

when the distant lost colony worlds finally called home, it seemed nobody cared.

Renewal—The Second Age of Space

By the eleventh millennium of the First Age of Space, it was clear to any dispassionate observer that the Commonality was in trouble. The human species as it was known was degenerating; the social fabric was a dry husk, awaiting only a puff of wind to blow it away. The rulers of the Commonality, in their desire to protect, were suffocating the society they had sworn to defend.

The discovery of **planing**, the technology to travel faster-than-light in 2-space, is still one of history's great mysteries, and highly controversial. It came at *exactly* the right time for the Commonality. At first no one cared; but as the first returnees from the rediscovered colonies became overnight

Table 10-1: A Timeline of Commonality History

New Commonality Era	First Age of Space	Event
14500 BE	-4000 FA	Prehistoric Age of Technology.
14000-12500 BE	-3500 FA	Autumn Cultures and the Fall of Man.
12500-11000 BE	-2000 FA	Dark Age: Glaciation and Ice Age.
11000 BE	-500 FA	Commonality: Unification of world civilisation as global climate control established.
10500 BE	0 FA	First Age of Space: Colonisation of the Solar System and early interstellar voyages.
10500-5500 BE	0-5000 FA	The Great Diaspora: Invention of stasis fields; humankind spreads to the stars.
9500 BE	1000 FA	Longevity: Anagathic treatments transform human society.
7000 BE	3500 FA	Orion Contact: First contact with the most distant of Earth's colonies, the civilisation which will one day be known as Venu.
5500 BE	5000 FA	End of Exploration: Commonality colonisation efforts gradually cease.
4000 BE	6500 FA	Orion Contact: Second contact with the Orion cluster.
1500 BE	9000 FA	Stagnation: Commonality in full contraction; superstition and social decay accelerates. Religion and news declared illegal on Old Earth.
1000 BE	9500 FA	Orion Contact: Third contact with the Orion cluster.
1 NCE	10501 FA	Expansionary Era—the Second Age of Space: Invention of planing. Humankind travels to the stars and finds them already inhabited by Old Earth's descendants. Establishment of the New Commonality.
70 NCE	10570 FA	Orion Contact—the Venu Empire: First visit to the Orion cluster ends with the Commonality ship being seized. The Commonality does not retaliate. Further clandestine surveys reveal a paranoid militaristic society in the cluster—the Empire of Venu.
110 NCE	10610 FA	The Venu War: The Empire of Venu invades Commonality Space with newly built war fleet and tries to conquer Old Earth. The tide is turned at the heroic Battle of Styphon V.
120 NCE	10620 FA	The Successor States: In the chaotic aftermath of the Venu War a number of small interstellar polities form in the vacuum left by the retreat of Venu and the Commonality. These become known as the Successor States.
150 NCE	10650 FA	The Stop-Start War: A series of skirmishes on the Venu frontier. The Venu retreat; the Commonality does not feel it yet has the strength to follow.
160 NCE	10660 FA	The Xeno Wars: A backlash against xenomorphs in some of the Successor States following the Stop-Start War causes revolution, fuelled by xenomorph arrivals from across the Commonality.
171 NCE	10671 FA	The Sentient Alliance: Foundation of a xenomorph polity in the Successor States by Commonality mandate following the Xeno Wars.
193 NCE	10693	Present day.

celebrities in the Manhome Mindscape, ripples of excitement spread. Here was novelty; here were young, vibrant, excited human beings, free from Commonality conditioning, questioning and challenging everything they saw. And there were more of them out there!

In a spirit of desperate friendship, the peoples of the Commonality embraced the rediscovered worlds and welcomed their peoples with open arms. By the time the one hundredth lost colony had been found, alien life had been detected, and First Contact with true alien minds. The Commonality was in a ferment of missionary zeal, and the galaxy seemed a wonderland, promising untold treasures. In a surfeit of bright-eyed enthusiasm a New Commonality of Humankind was declared, a revitalised civilisation and a Second Age of Space.

Conflict

First contact with the Venu brought the realisation that all was not perfect in this new Golden Age. A lost colony in the distant Orion Cluster, there had been only three communications in the entire First Age of Space. None of these had prepared the Commonality contact team for what they would find; a savage xenophobic society dwelling amongst the blasted ruins of a technological civilisation, with a fanatical hatred of anything that wasn't genetically pure human and worshipping a "god-emperor" whose word was law. Until Venu Contact, Commonality contact teams had been unarmed, and not equipped for conflict. The contact team starship was seized, and all contact lost; subsequent efforts were met with violence, and the Commonality withdrew, to plan a better strategy for peaceful cultural exchange.

Forty years later, the Venu returned. Suddenly, and in great numbers, piloting primitive yet heavily-armed starships reverse-engineered from Commonality planeships, they attacked Commonality worlds and made a beeline for Old Earth itself. Countless star systems were transformed into war zones, as in a five-year blitzkrieg the Venu fleet subjugated world after world, and the Commonality fell back. As the invasion force approached the newly-designated "Core Worlds", the Commonality realised it faced an existential threat. In the solar system of Styphon, the Commonality threw everything it had against the Venu, and fought them to a standstill. The Venu, clearly overextended, began to withdraw, and the Commonality prepared to re-enter the devastated star systems and rebuild. The new Commonality "manowars" which were born in the Battle of Styphon V were the vanguard of this force.

The Commonality pushed the Venu almost back to Orion. Worlds closest to the Venu homeworld had been transformed, occupied by Venu populations or scarred by occupation. Reluctant to re-incorporate potentially hostile populations immediately, the Commonality re-drew its borders, acknowledging the client "Successor States" between it and the Venu. Attempts to approach the Venu homeworld with diplomatic overtures were met with force, and the "Stop-Start War" continued for years along the Venu border until the Commonality withdrew, establishing a "Quarantine Zone" with the hostile and xenophobic state. Even today the Venu question is unresolved, and one way or another everyone is expecting war.

The Xeno Wars and the Sentient Alliance

By 160 NCE the Stop-Start War had fizzled, Venu and Commonality forces withdrawing. Pro-Venu states instigated anti-xenomorph pogroms on pro-Commonality worlds, which rapidly became a proxy conflict—the Xeno Wars.

Dates for the end of the Xeno Wars vary, but twenty-two years ago in 171 NCE a political alliance between pro-Xenomorph, pro-Commonality worlds arose which was strong enough to quieten most of the violence. This "Sentient Alliance" is the first xenomorph state, a buffer between the Commonality and the Venu and their Successor State satellites.

THE COMMONALITY TODAY

It is the year 193 of the New Commonality Era. For two hundred years the Commonality has been expanding, contacting lost colony worlds. In places they've bombed recalcitrant governments back into the Stone Age; in others they've created "autonomous regions" and planted psy-ops to coax populations into the Commonality fold. There are interdictions, quarantines, and embargoes—and all the efforts required to enforce them.

As the Commonality pushes outwards, it finds life everywhere. Most intelligent life is descended from colonists from the First Age of Space, and sometimes divergent evolution has made this very alien indeed; but some has also been extra-terrestrial. So far, none have independently developed faster-than-light travel, although many have adopted it with enthusiasm.

Exploration and Contact

The Expansion's early years were a blitzkrieg: worlds resisting Commonality control were simply mowed down. The Commonality believed it was doing this for the best reasons, and was often contrite afterwards, but self-determination was never an option for contacted worlds.

With time the Commonality has come to feel it doesn't have to use ordnance absolutely all the time to impose its will. Instrumentalities have become subtle, using psy-ops and long-term manipulation: they want to *incorporate* worlds, after all, not destroy them.

CULTURAL NEUTRALISATION

Commonality policy emphasises self-protection: does a world pose a threat? Neutralisation of cultural threats is the highest priority, and whole cultures may be quarantined

and even (theoretically) destroyed, though the Commonality isn't believed to have ever resorted to this final sanction. Cultures are evaluated for technological, material, and cultural resources, and the Commonality deals with threats simultaneously, establishing embassies or covert ops and exploiting resources at the same time.

Expansion and the Culture Worlds

The Expansionary Era has opened a door which it's been impossible to close. Virulent alien cultures and vibrant new ideas threaten Commonality stability, forcing it to protect itself. SCI Force and the Instrumentalities deal with direct cultural attacks; when they find a colony world with a strong and vibrant culture they can exploit, they reinforce that culture to be a bastion against cultural contamination from beyond the Frontier. Often these cultures are new and unknown; sometimes they are descendants of historical Old Earth cultures. In both cases SCI Force encourages them to develop their cultural identities, while defusing dangerous elements and using their strengths to defend the Frontier. The Commonality creates limited cultural conflict within its own borders, hoping it will act as inoculation rather than disease.

POLITIES

Polities are political **organisations**, usually the rulers of nations, planets, and interstellar federations and empires. Conflicts between polities are most frequently economic, but may easily degenerate into war.

THE NEW COMMONALITY OF HUMANKIND

In one form or another the Commonality of Humankind has existed in the Manhome system for 10,000 years. Given the vast numbers of Commonality citizens, concepts of representative government are nonsensical at Commonality-level, although on individual planets and petty clusters some forms are permitted. In the Core Worlds, in the interests of social stability, ideas like democracy, free trade, and religion are largely illegal, although increasingly tolerated towards the Fringe.

How Do the Fringe Worlds View the Commonality?

While lost colonies are populated by humans or near relatives, they don't always receive the Commonality with open arms. Here are some of the more unusual reactions which Fringe Worlds have displayed when confronted with the Commonality's arrival.

- ***Children of the Gods:*** *The culture is awed, and cedes authority to the Commonality's representatives. This hero worship may turn into aggression if the Commonality misbehaves.*
- ***Interstellar Fascists:*** *The culture's views on liberty are less repressive than the Commonality's, regarding Commonality culture as something imposed on them (which it is…). At worst this degrades into resistance and quarantine; at best the world may be a prime culture world candidate (page 281).*
- ***Men Like Gods:*** *The Commonality is too much to comprehend, and the culture treats its representatives like supernatural envoys. Worship, sacrifice, and darker offerings may be made to curry the envoys' favour and placate their wrath; if the Commonality isn't careful, the culture collapses quickly.*
- ***Thank God You Came!*** *The culture preserves a memory of Old Earth, and perhaps even one of its ancient cultures, and welcomes the Commonality as long-lost brethren. What happens next—when each culture finds out what the other is really like—is where it gets interesting.*
- ***Weird Alien Invaders:*** *The culture is too paranoid to accept the Commonality, perhaps exacerbated by evolutionary divergence. It treats the Commonality as invaders, violent resistance usually resulting in quarantine.*

Commonality government is a devolved benevolent dictatorship, diffuse and pervasive. For millennia it rigidly controlled Old Earth and a handful of Core Worlds, at the cost of eventual stagnation and decay; since Expansion, it has strained to encompass many thousands of worlds, as the "New" Commonality adapts to govern a galactic empire. By nature it's oligarchic, with governors and apparatchiks appointed top down; often resistant to change, it's plagued by inefficiency bordering on chaos and endless political intrigue. It often strays into ethically dubious territory to solve problems.

Tech Index: T9.

Scale: 9 (Galactic).

Reach: 9 (Galactic).

Memes: *Interstellar Government Uniting All of Commonality Space; We Governed Old Earth For Millennia; Byzantine and Complex.*

Competencies: Admin, Advocate, Deception, Diplomat, Informatics, Leadership, Persuade, Science, Tactics.

The Instrumentalities

The Instrumentalities are one of the two arms of Commonality government. Their nearest historical analogues are the civil services or mediaeval guilds: they aren't commercial entities, but organisational structures for executing the will of the Custodians of the Commonality (see below)—its mysterious and shadowy pseudo-rulers. They're the "active" part of the Commonality government.

Instrumentalities are Commonality-wide, with Reach 9 (Galactic), and organise themselves as required. Each has multiple arms, including executive, enforcement, and intelligence. There are five principal instrumentalities.

THE ARMED FORCES INSTRUMENTALITY (AFI)

Until recently, the Commonality had no need of a standing army; even the notion seemed archaic. Contact with the Venu changed all that; nowadays the Armed Forces Instrumentality recruits and trains on almost all Commonality worlds.

The situation is chaotic. The AFI General Staff sentiences coordinate a myriad different armies, corps, divisions, legions, regiments, with their own traditions and organisations, but it will take time to hone the AFI into an effective fighting force. Right now the AFI aims at a locally-coordinated defence network (subsector-level at best); it hasn't been tested in the fire of war, and will likely be found wanting.

AFI characters belong to a "lower tier" organisation like a subsector or octant division, or even a planetary legion. AFI level organisation is nice in theory, but still a pipe dream.

Typical AFI Careers: Diplomat (negotiator), Military (AFI soldier).

THE INTERNAL SECURITY INSTRUMENTALITY (ISI)

Many aspects of Commonality life would seem bizarre and oppressive to our 21st century eyes. The Fringe Worlds are more free-thinking, their customs often shocking to Commonality sensibilities, but the Core Worlds are a web of byzantine customs and prohibitions. Trade and money are social taboos in the Core, religion and democracy are illegal, and the uncontrolled dissemination of news is banned.

Where the Core Worlds and Fringe meet, there's friction, and the Internal Security Instrumentality has its hands full keeping the peace—often despite the unfathomable machinations of SCI Force. ISI characters are the interstellar police and intelligence agents, investigators, and crime fighters.

Typical ISI Careers: Diplomat (attaché), Sci-Tech (any), Security (agent), Security (Mindscaper).

Warfare in the New Commonality

Warfare is a question of technological superiority. There has been no open large-scale warfare within the Commonality for millennia. There has been occasional unrest—viewed with horror—but total war and major military confrontations are things of the distant, almost prehistoric past—or were, until the Venu appeared.

The Commonality therefore treats military conflict as part of the continuum of police and security operations, as a tool in its negotiating arsenal. Where violent conflict is anticipated, the Commonality security forces always opt for nonlethal neutralisations by means of basic drones operated remotely via Mindscape. If there are insufficient for any reason, they may upgrade to lethal drone attacks, or send in sentient combatants, again beginning with nonlethal and escalating to lethal attacks (see also "The Sanctity of Life Principle" on page 117).

Since Rediscovery, the Commonality has occasionally found itself faced with massed violent resistance to its overtures. Its initial tactic in each instance is to retreat and revert to memetic manipulations—it can afford to plan for the long term. Where that isn't possible (for whatever reason), the Commonality sends in overwhelming numbers of basic combat drones to achieve strategic objectives, usually controlled by strategic sentiences in orbit, or at field HQ where orbital CPs are not appropriate.

Things are more complex when the opposition is able to interfere with or jam comms between drones and their controllers. As drones are basics, their military abilities, while sufficient for civilian control, can be countered by sentient opposition of close tech index. Electronic warfare is therefore a key component of Commonality conflicts with ore technologically advanced foes, and conflicts in the Mindscape can determine whether combat drones retain sentient control.

If the electronic warfare quotient is too high, the Commonality eventually sends sentient combatants into the fray. These need not be organic; often mechanical citizens are more appropriate. However, HiTAT troopers are often sufficiently enhanced to blur the difference.

Even sentient combatants won't simply wade into combat. They'll use their own close range combat drones, EW attacks, smart missiles, and more to attempt to neutralise opposition at a distance. Ideally Commonality combatants will be armed and armoured until they're almost invulnerable to lower tech attacks.

There is, however, in reality one serious mitigating factor to the above setup: the availability of armed forces. The Commonality simply does not maintain thousands of highly-trained, combat-ready troops everywhere in its territory, reading to drop into combat zones at a moment's notice. Given time, the Commonality can usually bring to bear overwhelming military force to counter pretty much any opposition; but in the short term things may be very different. Polities opposing the Commonality which act very rapidly and decisively may achieve their military objectives before the Commonality is able to react. Even then, a small number of trained and equipped Commonality soldiers can hold off vast numbers of technologically inferior troops.

*There are two nightmare scenarios for Commonality strategists. The first of these is conflict **within** the Commonality, such as a civil war. In such a situation casualties are expected to be appalling, and strategic ruthlessness and resource control to carry the day. Second is the appearance of a hostile, technologically superior alien foe. The Commonality is well aware that it would have very little defence against even a T11 or T12 opponent; as a result, SCI Force is both paranoid and extremely active all along the Commonality Frontier.*

THE SPACE FORCE INSTRUMENTALITY

Space Force is in a state of flux. Originally a civilian exploration and transport organisation, since the first Venu War it's been quickly militarised, and is still learning. It has a huge intelligence bureau, frequently in conflict with SCI Force, gathering strategic, tactical, and technological know-how from contacted worlds; as well as an exploration bureau, responsible for the Event Horizon Probes and the rediscovery of lost colonies beyond the Commonality Frontier. It provides the full range of starship crews, including expert 2-pilots and n-pilots.

Typical Space Force Careers: Explorer (archaeologist), Explorer (scout), Installation (mediator), Installation (sentient starship), Military (marine), Sci-Tech (engineer), Spacer (starship crew).

THE COMMUNICATIONS INSTRUMENTALITY

The Communications Instrumentality manages inter-world communications, including diplomatic missions and the Mindscape. It includes diplomatic, Mindscape technical and operations staff, sentinels, and technopsi agents.

Typical Communications Instrumentality Careers: Diplomat (ambassador), Diplomat (negotiator), Installation (node mind), Installation (sentient starship), Sci-Tech (engineer), Sci-Tech (researcher), Security (agent).

THE SECURITY AND CULTURAL INTEGRITY INSTRUMENTALITY (SCI FORCE)

The contact specialists, culture agents and memetic engineers of SCI Force protect the Commonality against internal and external threats, including powerful ideologies and cultural manipulations (see **Chapter 11: Cultures**). The instrumentality also has its own pilots, marines, and military, separate from the AFI and Space Force.

Typical SCI Force Careers: Diplomat (negotiator), Explorer (contact specialist), Installation (sentient starship), Military (marine), Military (soldier), Sci-Tech (engineer), Security (agent), Security (Mindscaper), Spacer (starship crew).

Tech Index: T9.

Scale: 6 (Planetary).

Reach: 9 (Galactic).

Memes: *The Commonality's Shield Against Cultural Contamination; Ruthless Pragmatists; We Won't Make the Venu Mistake Again.*

Competencies: Deception, Informatics, Interface, Science, Social Science, Tactics.

SCI Force is frequently a source of adventure in the New Commonality Era, handling the "Five Stages" of cultural integration (page 231) on rediscovered worlds. It comprises four bureaus:

THE EVALUATION BUREAU

Popularly known as "Bugs and Slugs", the Evaluation Bureau handles the Stage Zero Interdiction and Manipulation (page 231) of rediscovered worlds. It's a scary bureau, in an abstract, clinical way.

THE CONTACT BUREAU

Handling Stage One Contact (page 231), this is the more scientific and least frightening of the bureaus—although ruthless in its operations.

THE ACCULTURATION BUREAU

Handling Stage Two Normalisation and Stage Three Acculturation (pages 231), the Acculturation Bureau fields special operations teams for "sanctions" and cultural manipulations.

Tech Index: T9.

Scale: 5 (Continental) (Nested Organisation)

Reach: 9 (Galactic)

Memes: *Who Manipulates the Manipulators? Ruthless and Analytical; Behind Enemy Lines.*

Competencies: Deception, Gun Combat, Informatics, Recon, Tactics.

THE MONITOR BUREAU

Also known as the "Behaviour Police" or "Hush Ops", the Monitor Bureau handles Stage Four Cultural Integrity (page 232). It's the scariest of the bureaus, in a "stop doing that or die" kind of way.

SCI Force Teams

*SCI Force operatives are organised into operations teams associated (often permanently) with specific bureaus. Operations teams include: Construction and Reconstruction, Insertion, Manipulation, Research, Sanction, Science, Technical. Teams are sometimes combined ("Sanction and Insertion Teams" are frequent these days), and members may be seconded to other teams for specific operations. See **Chapter 11: Cultures** for a discussion of SCI Force cultural operations (page 231).*

The Ministries

The ministries, also known as **directorates**, are the second arm of the Commonality government, coordinating and creating the policies which the instrumentalities carry out. See Table 10-2: Ministry and Instrumentality Correspondence. They're the passive, administrative part of the Commonality government—the occupiers of the halls of power, the strategists and intriguers. Most characters from the ministries will be Diplomats, although those from the Core Worlds may be CORESPAN agents from the Security career.

Ministries interact at sector-level in an umbrella organisation called the **Pansectorate**; there's a Pansectoral Moot in session at every sector capital.

THE MINISTRY OF BROADCAST PROPAGANDA

For millennia the Commonality has believed that a happy population is one that is constantly informed about life's positive aspects—individual achievements, acts of heroism, good things that happen—and exhorted to emulate socially productive values like cooperation, selflessness, and positive reinforcement. More cynical minds might call this brainwashing, but the Ministry of Broadcast Propaganda doesn't see it that way—its job is the priceless social responsibility of **education**, from cradle to grave.

The ministry manages what passes for news in the Core Worlds, where unrestrained reporting is illegal, and its agents are found throughout Commonality Space, looking for positive stories and putting a positive spin on events everywhere. Ministry agents often conflict with more journalistic reporters of Fringe World cultures, and can be heavy handed in shutting down stories they believe may harm the Commonality culture. The ministry works closely with SCI Force, although

they rarely share the pragmatism and belief in human cultural resilience SCI Force agents have.

THE MINISTRY OF EVOLUTIONARY PLANNING

Humankind is evolving. Lost colonies are often highly divergent, and synthetic and xenomorph populations mix human and non-human in unpredictable ways. Genurgy has put control of the genome in an individual's hands—or even the "hands" of the Planetary Intelligence. Everywhere, citizens are starting to "go post", becoming something no longer properly human. It's a chaotic, rapidly changing situation, close to spiralling out of control.

The Ministry of Evolutionary Planning tries to keep a lid on things. It focusses on what humankind **should** become, what future citizens of the Commonality **could** and **should** be. If you're going post, or undergoing extreme enhancement or genurgic modification, the Ministry wants to know…

THE MINISTRY OF INTERNAL AFFAIRS

The Ministry of Internal Affairs is the nearest the Commonality gets to a civil service. Its job is to manage everything not covered by the other ministries, which mostly boils down to providing the day-to-day necessities of food, accommodation, and satisfying activity (including "work") to the Commonality's trillions of citizens.

Table 10-2: Ministry and Instrumentality Correspondence

Ministry	Instrumentality
Broadcast Propaganda	Communications
Evolutionary Planning	Security and Cultural Integrity
Internal Affairs	Internal Security
Movement	Space Force
War and Defence	Armed Forces

Most ministry administrators are pen-pushers and number-crunchers. When they encounter problems which words and numbers can't solve, they call on their instrumentality colleagues in the ISI (page 197).

THE MINISTRY OF MOVEMENT

The Ministry of Movement is charged with administering all aspects of Commonality infrastructure relating to the movement of people and resources. This includes the creation and maintenance of starports, logistical support for resource distribution, maintenance and supply of Mindjammer and passenger routes, and so on. Before the Venu War, the Ministry of Movement and Space Force were a single directorate; there are still many ambiguities and areas of overlap.

THE MINISTRY OF WAR AND DEFENCE

A relatively new directorate, the Ministry of War and Defence has a very complex relationship with the AFI, Space Force, and SCI Force. It's charged with strategic planning at sector level, and Pansectorate moots often issue conflicting orders and requests to the instrumentalities.

The Custodians

The **custodians** of the Commonality are its true rulers. Elusive, shadowy figures, often working alone, their agendas are species-level, spanning lifetimes. Some have palaces and centres of power; others seem invisible, appearing only when required. They're scary people with authority over all affairs in their domain, including life and death.

A single custodian "rules" a sector. The custodian interacts with the Pansectorate ministries, setting policies which the instrumentalities carry out. Watcher Craypast is ruler of the Rim Sector; he's said to be rarely at his palace on the sector capital of Tsentair, instead travelling between its many worlds. There are many rumours and alleged sightings of this mysterious figure.

The custodians are accountable to no one, except perhaps each other. For all intents and purposes they're a group of absolute rulers each in charge of their own domain, owing fealty to a higher abstract concept of "the Commonality". The system is designed to prevent corruption and promote disinterested action: they're above the law, have unlimited

resources, but are ultimately responsible for the fate of the species. A quorum of three custodians can order another custodian to be put to death.

The custodians communicate, either by Mindscape or in person, on an ad hoc and informal basis, and the Whispering City in Jiva is where they meet on neutral ground, either in person or via avatar.

Most custodians are old, born on Old Earth or in Manhome: Watcher Craypast is relatively young at approximately 300 years old, but a staunch conservative when it comes to cultural integrity and xenomorph rights. It's rumoured that at least one custodian is a synthetic; some say all of them are.

For the 10,000 years of the Commonality's existence, the custodians were mostly confined to Manhome; they probably derived from national, cultural, and religious leaders of earlier times. Within Manhome, matters were smaller-scale and easier to control, particularly when most custodians were more or less continuously in session at Jiva.

The New Commonality was declared only two hundred years ago, within the lifetimes of all the custodians, and they've been improvising wildly ever since. They have a wide remit, and are morally terrifying: their only priority is the preservation of the human race and Commonality culture. All other considerations are secondary, and already custodians routinely do things which most citizens would consider "evil".

It's clear that the custodians are tied to human thought processes, and could be second-guessed by an unfamiliar alien race. Their attempts to manipulate the Venu, for example, went horribly wrong.

THE VENU EMPIRE

The exact nature of Venu government is a mystery, but is believed to be an oppressive theocracy headed by a hereditary "God Emperor". It captured planing technology over a century ago, and immediately set about conquering its neighbours. It expanded rapidly, recapturing colony worlds with which it had lost contact, then embarking on a mission of conquest. By the Venu War the Empire had fusion power; by the Stop-Start War it had hybrid zeropoint technology; now it uses the infamous **dirt drive**, and is expanding at a frightening rate.

The Venu Empire tech index averages T7 (First Age of Space); the stolen dirt drive technology is entirely anomalous. In starship combat it is dangerously unstable and sometimes explodes; Commonality torsion field projectors are specifically designed to exploit this weakness. The Venu have no advanced technologies like the Mindscape, synthetics, or extreme longevity, although they do have rudimentary AI, and things we would recognise as "computers" which the Commonality regards as extremely primitive. Their technology is bulkier and less sophisticated than the Commonality's. While they don't use space combat drones, they do use attack droids in ground combat.

Venu security isn't as good as the Commonality's, nor is the Empire physically as large, or able to command the same resources. However, they're more violent, and have been at war since before Commonality contact; their aggression has the Commonality on the defensive. What they lack in sophistication they make up for in fanaticism and disregard for their own safety.

Tech Index: T9.

Scale: 8 (Interstellar).

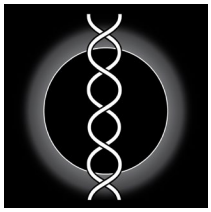
Reach: 8 (Interstellar).

Memes: *Xenophobic Theocratic Dictatorship; Cleanse the Cosmos of Abomination; Only the Strong Are Fit to Command.*

Competencies: Deception, Explosives, Gun Combat, Leadership, Recon, Stealth, Streetwise, Tactics.

CORPORACIES

Corporacies are interstellar commercial polities with enormous holdings, often entire planets, spread throughout Commonality Space, overlapping with traditional polities. They are "new industries" established in the Expansionary Era in response to demands unknown on Old Earth for millennia. Some were created from pre-Expansion corporations; others from extinct megacorps from Old Earth history. As sources of troublesome memes they have a complex relationship with the Commonality and the New Traders, operating in a strange, extra-legal space; many people still believe commercial activity to be primitive and socially dangerous. Corporacies are one way the Commonality is a victim of the Expansion as much as its beneficiary.



Chembu Genurgy

Chembu Genurgy was formed when the Chembu (page 26) took their genurgy business offworld. It's a little over a century old, clearly divided into Chembu and non-Chembu personnel. The Chembu form all the corporacy's upper management.

Chembu Genurgy is efficient, affordable, and extremely secretive. Rumours abound that its CEO is the Planetary Intelligence itself, and that it has a nefarious, inhuman agenda. However, while a ruthless competitor, the corporacy openly advocates Commonality policy and puts enormous resources into Commonality coffers. It's also one of the foremost corporate world developers; almost every octant of Commonality Space has a Chembu corporacy world.

Chembu has offices on most Commonality worlds. Even

Table 10-3: Commonality Corporacies

Corporacy	Activity
Chembu Genurgy	Genurgic enhancements.
Combatechnologies, Inc	Combat armour, drones.
Crucis Systems	Life support modules, habitats, extreme conditions vehicles and equipment, rescue services.
Darradine Industries	Technopsi devices, Mindscape implants.
Gant Shipyards	Planeship construction and repair.
HAL AG Industries	Gravtech and suspensor fields.
Honnyo Universal Products	Pharmaceuticals, gravitics, and cybernetic / control systems.
Hydrodyne Technologies	Transport and vehicles.
Javawayn Industries	Gravtech, star cities, luxury space hotels and cruisers, zero-G habitats.
Kessel Yards	Shipyards, ship hulls.
Magnatech, Inc	Kinetic weapons.
Mai Ling Military Optics	Combat drones, sensory arrays and drones, sentient weapons.
Morbius Metals	Raw materials and metals.
Murasaki Corporation	Combat walkers, lifters.
Neverine Pharmaceuticals	Biomeds.
Pleskov & Sons Armaments (PASARM)	Heavy weapons.
Tameslond Derivations	Strategic deployment of economic systems.
TKX (Trondheim-Kawasaki Xenoforms)	Synthetics, genurgic enhancements.
Tyce Systems	Null weapons, blasters.
Universal Products	Multiple fields.

beyond, the infamous **Chembu bioships**, semiorganic faster-than-light vessels, travel the Fringe Worlds offering their services to whoever can afford them.

Tech Index: T9.

Scale: 7 (Interplanetary).

Reach: 9 (Galactic).

Memes: *We Are Chembu—Chembu is One! Unfathomable Agendas; Backed by the Planetary Intelligence.*

Competencies: Diplomatic, Informatics, Investigate, Medic, Recon, Science, Social Science.

Javawayn Industries

The main manufacturer of grav suspensors and hulls for zero-G habitats, starships, orbitals, and plateworlds, Javawayn Industries also builds and operates the many Javawayn star cities. Most Commonality Javawayn (page 27) work for JI-corp in one way or another, and account for about 2/3 of its personnel.

Tech Index: T9.

Scale: 5 (Continental).

Reach: 9 (Galactic).

Memes: *Luxury Hub Manufacture; Studied Neutrality; Friends in High Places.*

Competencies: Admin, Astrogation, Mechanic, Pilot, Vac Suit.

Morbius Metals

With a reputation for ruthlessness and shady dealings, Morbius Metals is roundly hated, even by its employees, and would probably collapse were it not for the fact that it's very good at what it does. It's one of the leading mining corporacies and provider of raw materials and metals in Commonality Space, and its supply lines are inextricably entwined with the second trade node of makepoint transport and distribution, which some say will one day put Morbius Metals out of business.

Tech Index: T9.

Scale: 7 (Interplanetary).

Reach: 9 (Galactic).

Memes: *Commonality Leader in Raw Materials; Fearsome Cut-throat Reputation; Disgruntled Workforce.*

Competencies: Admin, Astrogation, Broker, Deception, Gun Combat, Mechanic, Streetwise.

COMMERCE AND INDUSTRY IN THE EXPANSIONARY ERA

The trade rules in the ***Traveller Core Rulebook*** are mostly unchanged in ***Mindjammer***, but some assumptions about interstellar trade, commerce, and industry differ profoundly.

The most precious product of the zero point revolution has been almost unlimited free energy. Born from 2-space technology, it has enabled the creation of planing engines. It has changed everything. The **makepoint** (page 115) is the engine by which zero point energy is converted into matter. Makepoints can more easily create simple materials than complex ones—elements rather than molecules, inorganic compounds rather than organic ones. While a makepoint could theoretically create an entire working core corpus for a starship, it's more efficient to use it to create its components separately, then to use another device to assemble the final product. For smaller items or quantities, makepoints are effective, especially in the production of primary foodstuffs. Synthesised vegetables, meats, and relatively complex dishes can be created in only a few minutes with the makepoints built into advanced staterooms (page 167).

The Problem With Makepoints

While makepoints may seem the solution to all society's ills, and particularly to problems of scarcity and inequality, two barriers to their effectiveness remain: time, and imagination. Imagine a device which can create everything you need: food, drink, clothing, medicines. Makepoint sentiences decide what

to produce and when, analysing inventories and needs. But this takes time. Do you want a new grav flyer? No problem! The makepoint can build one for you in a month or two… Or you can contact resource allocation and get a ready-made one right away…

A makepoint is like a **factory**; it needs management and facilities. Just transporting the produce from a makepoint is time-consuming. The second barrier is imagination. Do you want something new? Tell the makepoint **exactly** what you want. No ideas? Then you need a creative technical mind to interpret your desires and produce blueprints the makepoint can use. The social and commercial interactions between designer and consumer need managing, too.

Trade and Industry

Given these constraints, it's still often more efficient to use natural products than to create them by makepoint, particularly if those products are plentiful in your local environment. For example, it's quicker and easier to chop down a tree than to synthesise the complex cellular structure of finely seasoned wood in a makepoint and assemble it into furniture. On a planet with lots of trees, it makes sense. On a barren vacuum world, if you really must have a wooden chair, you can synthesise the wood, but it will take time that could be better spent using the makepoint to create more immediately useful things.

With a makepoint, energy may be virtually limitless and free, but time and imagination are not. Humans are finite, and while a makepoint can eventually create everything a human being might conceivably want, even Commonality humans can die from accident before it can get round to it.

For all of these reasons, the Commonality tries to use makepoints efficiently. Wealthy people may monopolise makepoints to create frivolous things, but usually makepoints provide atmospheres and life support on starships, nourishing food, primary materials which are difficult to obtain (or non-existent) in certain environments.

They're rarely used for complex products—manufactories controlled and managed by basic sentiences use makepoint-generated or natural primary materials and assemble them into complex products to meet short-term needs far more quickly. Manufactories also permit economies of scale—and that means **trade**. In the Core Worlds, provision of goods has become institutionalised; "trade" is simply a matter of delivering expected products from manufactories to consumers according to ancient tradition. Out among the Fringe Worlds, where makepoints aren't a given, there's a dynamically changing situation where economies rise and fall quickly based on local demand and the ability of technology or trade to satisfy it. As a result, it's difficult to generalise about trade in the Commonality. In the Core Worlds, it hardly exists: on the Fringe, it's everywhere, constantly changing and chaotic, met by Commonality resource allocation, corporacies, and the near-freebooters known as New Traders. In between, every permutation exists somewhere—it's a big galaxy.

How Trade Works

Conventional analysis breaks the Commonality economy into six **trade nodes**, described below. You can use these in play to provide many **hooks** for adventures; some examples are given in the trade node descriptions. Many stresses in the societies of the New Commonality Era stem from disagreements about how the trade nodes should function, and characters can be sent in to resolve (or even exacerbate) problems. Economics may be a dismal science, but when it becomes a religion the wars it causes are second to none. The drier aspects of trade nodes rarely concern PCs; but when a Fringe World gangster decides to monopolise the makepoint distribution network, or a difference in memes won't allow cultures to accept the freedom from drudgery and inequality promised by makepoints, or wars threaten the free movement of much needed people, goods, or medicines, PCs can make the difference between life and death, war and peace, or order and chaos.

TRADE NODE 1: THE MAKEPOINT MANUFACTURING INDUSTRY

Dedicated sentiences across the Commonality work continually on the design, creation, and distribution of makepoints. They're a primary commodity, and a thriving industry on the Fringe; administering makepoint permits is one of the functions of the Commonality embargo.

Hooks: *A Revolutionary Makepoint Design; Makepoint Construction Sabotage; Scouting the Best Location for a New Makepoint Plant.*

TRADE NODE 2: THE MAKEPOINT TRANSPORT AND DISTRIBUTION INDUSTRY

Once manufactured, makepoints must be transported to where they'll be used. This is more complex than you might think, and often the purview of subsidised freighters and elaborate distribution networks.

Hooks: *Running Embargoes and Blockades; Piracy on the Fringe; Security Escort Into War Zones; Grasping Warlords of the Successor States.*

TRADE NODE 3: THE MANUFACTURING INDUSTRY

Product manufactories are the principle users of large-scale makepoints. Corporacies create their products in three main ways:

- Entirely by makepoint: Inefficient and time consuming, requiring multiple makepoints, this is usually reserved for high-need products in regions where they can't be easily made any other way.
- By makepoint and assembly: Perhaps the commonest method of manufacture, with makepoints synthesising basic components for manufactories, which are then

assembled into finished products. It's the classic factory model, needing workers (usually basic synthetics) and managers (often a corporacy) dealing with market analysis, distribution, etc.

- Entirely without makepoint: Almost unknown in the Core Worlds, but common in newly-rediscovered societies, this also uses the classic factory model, but is subject to massive upheaval if makepoints are introduced anywhere into the process.

Hooks: *Secret Makepoint User; Luddites and Saboteurs; Let Them Eat Cake!*

TRADE NODE 4: MARKET DISTRIBUTION

Manufactured products must be distributed to where they're needed. This requires market analysis, distribution management, and delivery, plus lots of liaison. Even if this is done "automatically", in the Commonality that means basic or eidolon synthetics, citizens in their own rights, who again need rewarding.

Hooks: *Backhanders; Illicit Stimulation of Demand; The Medicines Must Get Through!*

TRADE NODE 5: FINANCIAL PRODUCTS

In the Core Worlds, economic relations are stratified by tradition; people fulfil roles because "that's what they do". Call it brainwashing, call it a caste structure, pride in one's work, peer pressure: most Core Worlds sentients take part in economic relations because "that's how things are done". There's little concept of "payment" as such—everyone gets what they need according to their station, and it would be rude not to do one's bit. Labour isn't onerous, usually tailored to people's inclinations, and the rewards are a life of agreeable productivity, security, and pleasure.

On the Fringe, things are hugely different—hence the "reinvention" of money with the Expansionary Era Currency Unit, or **credit** (Cr). With complex, unequal, and highly unstable economic relations, currency is an abstract representation of "work" or "scarcity" exchangeable based on political fiat. It helps Fringe Worlds into the Commonality by incorporating them in its economic activity.

However, where you've got money, you've got banking and speculation. They're rarely called that, but on the Fringe they're everywhere: credit unions, economic facilitators, insurers, stock-agents, and so on. All the mad bad paraphernalia of exploitation run riot on the Fringe, and the Commonality and SCI Force struggle to keep control.

Hooks: *Contradictions Laid Bare; The Violence Inherent in the System; Have and Have Not; Invisible Hands and Invisible Pockets; Happily Inefficient; Corruption and Tradition.*

TRADE NODE 6: THE LABOUR MARKET

All trade nodes require "agencies" or "instrumentalities" to run them. That means people, in the loosest sense: synthetics, eidolons, organics, even humans and hominids and maybe aliens. When you have people engaging in labour, issues of competence, enthusiasm, and availability become paramount; the people to do the jobs can be more or less scarce, even if it's just a question of delivering several hundred management synthetics to a burgeoning Fringe World economy in time. Anywhere there's scarcity, there's a market.

Hooks: *Middle Man in the Supply Chain; Economic Migrants; Oversupply and Overdemand.*

The Economics of Interstellar Trade

Prior to the Expansionary Era, there was no effective interstellar trade in physical goods. No one even considered transporting items between solar systems; pre-FTL travel was so prohibitively expensive and time consuming that it was vastly cheaper to manufacture any product, no matter how costly, locally, than to transport it between star systems. The only viable exchange was information; although slow, information exchange between worlds by tightbeam at lightspeed was almost always cheaper than developing it locally. The invention of planing destroyed this status quo; a single ship can now transfer the informational heritage of the entire species between worlds in a matter of days. For two centuries, this has been the key reality in interstellar trade. Information exchange has been a huge homogenising influence on the Core Worlds, although less so on the Fringe because of the dangers of cultural conflict. Fringe and Outer Worlds not within the Mindscape are often subject to Commonality embargo; embargo runners flout this, engaging in information smuggling. In the New Commonality Era, information is one of the key cargoes, and within the Commonality largely a monopoly of the Mindjammer fleet. Even so, physical trade does happen: there is a trade in luxury items and "cultural exports", and a bulk trade in raw materials lacking in certain star systems which cannot be synthesised in sufficient quantities by makepoint. Not all star systems have the same chemical make-up, and scarce yet vital resources are supplemented by trade. The Commonality's instinct is to control this trade, but the sheer scale of activity on the Fringe has made it impossible.

Corporacies criss-cross entire sectors, and Pansectorates subsidise less viable yet crucial routes. The New Trader phenomenon is another response to this constant and changing demand. The last key trade item in the New Commonality Era is **people**. Not populations, as again these can be grown or manufactured locally; but individuals—travellers, travelling from one star system to another, for a myriad of personal reasons. Passenger travel in Commonality Space ranges from the mass stasis bulk "meat transports", to luxury FTL cruisers like the Javawayn star cities. New Traders (as usual) fit somewhere in the middle, transporting animate or stasis travellers on niche runs.

Effects of the Embargo or Quarantine

A Commonality embargo or quarantine has the following effects:

- *A* **quarantine** *places the system totally off-limits, and the system gains at least 1 q-ship, a system patrol station, and several SPBs (page 180). The world's* **Trade Index** *(page 274) is reduced by 5.*
- *Quarantined systems are patrolled by quarantine enforcers and SPBs. If you come within Very Distant range (5 million km) of a quarantined world, you must avoid detection or be subject to arrest, or destruction if you resist.*
- *An embargo is less stringent, and is handled by customs boats and starport authorities in system.*
- *The embargo limits the types of goods that can be sold on or transported to the world, reducing its Trade Index by the numerical value of the embargo (a +2 Embargo reduces a world's Trade Index by 2).*
- *When entering an embargoed system and submitting to customs inspection, you must make a Difficult (10+) Admin check, with the following DMs based on the system's* **Control Index** *(page 273): Control Index 1- = DM+4; Control Index 3- = DM+2; Control Index 7+ = DM-2; Control Index 9+ = DM-4.*
- *If a character is in breach of the embargo and fails this Admin check, he may be brought to trial and punished, or attacked if he flees. At minimum, all the characters' trade goods are confiscated by Commonality authorities, and the characters are forbidden from returning to this system.*

The Role of Small Ships and Independent Traders

Today, interstellar trade between the Commonality's Core Worlds is relatively rare; in general, each star system has most or all of the resources it requires. What trade exists involves hauling freight and passengers in large vessels controlled by powerful corporacies; other than the occasional passenger, there's almost no room for small operators. Part of the reason for the rise of the New Traders is that trade out in the Fringe, Outer Worlds, and Successor States is far more free and open than trade within the Commonality Core.

Even out on the Fringe, corporacies attempt to control trade, but there are niches and openings for small operators, especially for those selling goods to recently rediscovered worlds. However, these worlds are often quarantined or embargoed shortly after rediscovery, limiting the ability of

New Traders and other small merchants to buy and sell goods. Most small traders engage in the following activities:

- Speculative and information trade on rediscovered worlds and in the Successor States. If you can locate a lost colony before SCI Force's Evaluation Bureau intervenes, you can even be the first off-worlders to ever trade with a world.
- Carrying passengers and small freight from the Commonality to rediscovered worlds and the Successor States, or between non-Commonality worlds.
- Selling information about trade opportunities outside the Commonality to one of the corporacies.
- Selling newly discovered goods acquired outside the Commonality to Commonality worlds, particularly successful when selling goods to Commonality worlds with a high **Openness** score (page 273).
- Attempting to sneak goods past an embargo or quarantine and sell them to residents of a world who have few other options to acquire them.

Passage and Freight Costs

Basic passage is rare, mostly occurring when transporting refugees from war or disaster. Low passage uses stasis berths rather than low berths, and is exceptionally safe and easy. The cost of passage and freight in the Commonality and across most of the Fringe has a set cost per light year travelled.

High Passage: Cr150/light year.
Middle Passage: Cr100/light year.
Low Passage: Cr30/light year.
Freight: Cr15/light year per ton.

For longer journeys, starships perform periodic ZIP plant overhaul, usually involving a stopover at a port of at least several days. High and Middle passengers retain use of their staterooms when in port; Low passengers remain in stasis, and freight remains on the starship.

Seeking Passengers

When rolling to find passengers (***Traveller Core Rulebook*** page 207), add the current world's **Openness Action DM** (page 274) to the check instead of the Trade Index Action DM. There is no DM for Amber Zones, and basic passengers are only found during a crisis when people wish to evacuate a system; Red Zones are known as **quarantined worlds**. DMs for planetary populations are as follows:

- Population 1 (Negligible): DM-4.
- Population 5-6 (Low Standard) or 7-8 (Standard): DM+1.
- Population 9-10 (High Standard) or higher: DM+3.

DMs are otherwise the same.

The Random Passenger Table on page 209 of the ***Traveller Core Rulebook*** is modified, replacing the corresponding results with those shown on Table 10-4: Random Passenger Table (Revised).

The Trade Index

World creation in **Mindjammer** *includes a* ***Trade Index*** *characteristic (page 274), indicating how much trade the world conducts with other star systems, and how open to trade it is. Trade Index varies from 2 or lower (No Trade) to 12 or higher (Ubiquitous trade), and provides a* ***Trade Index Action DM*** *(page 275) which is applied to all checks to locate freight or find a supplier or buyer when engaging in speculative trade.*

Table 10-4: Random Passenger Table (Revised)

Roll	Passenger
16	Corporacy executive or operative.
23	Secret Venu operative or secret Venu ally operative.
41	Anti-human xenomorph bigot or xenomorph activist.
51	Sentient vehicle or other non-humanoid synthetic.
52	Zealot (Roll 1D: 1-4 = Polite but insistent; 5-6 = Obnoxious and insistent).
53	Strange and haughty Core Worlder.
54	Instrumentality executive on an important mission.

Freight and Mail

When rolling to find freight (***Traveller Core Rulebook*** page 208), treat embargoed worlds as Amber Zones and quarantined worlds as Red Zones. On the **Effect of a Streetwise or Broker Check** table, replace TL6-7 with T6 (TL 8-9), and TL9 with T9 (TL 15-18); also, add in the Trade Index Action DM (page 275). DMs for planetary populations are as follows:

- Population 1 (Negligible): DM-4.
- Population 5-6 (Low Standard) or 7-8 (Standard): DM+2.
- Population 9-10 (High Standard) or higher: DM+4.

DMs are otherwise the same.

"Mail" is not carried by merchant ships; instead, Mindjammers carry analogous data from world to world, excluding those multi-system polities which aren't part of the Commonality Mindscape. These polities may hire vessels to carry data between their systems to synchronise their Mindscapes or proto-Mindscapes, if they have them.

Speculative Trade and Smuggling

Although what exactly is being smuggled or traded may differ markedly in ***Mindjammer***, the game mechanics are basically the same. The biggest difference is that, outside of the Commonality, each Fringe polity has its own laws and law enforcement, meaning that items which are legal

and accepted in one polity may be illegal or at least highly restricted in another.

Remember: add the world's **Trade Index Action DM** (page 275) when attempting find a seller or buyer. Using a world's Trade Index also downplays the role of its starport type: when locating a seller using the rules on page 210 of the ***Traveller Core Rulebook***, use the following Starport DMs instead of the ones listed on that page.

- A-class starport or higher: DM+2
- B-class starport: DM+1
- E-class starport: DM-1
- X-class starport: DM-3

Openness and Speculative Trade

In addition to other DMs, if you're attempting to sell items that a culture is unfamiliar with, add the culture's **Openness Action DM** (page 274) to all Broker checks, representing their reaction to something new. Additionally, add the same DM to the "Sale Price" column on the Modified Price Table on page 211 of the ***Traveller Core Rulebook***.

If a culture has had limited exposure to an item, halve the Openness Action DM (round up) when used in the above rolls. Well-known offworld items don't receive this modifier.

OPENNESS AND SELLING GOODS IN THE COMMONALITY

Occasional New Traders do exceedingly well for themselves by locating previously unknown goods on Fringe and Outer Worlds and selling them on Commonality worlds with high Openness characteristics. As long as the goods don't violate local laws, such trades are legal. However, Commonality corporacies keep track of new goods on Commonality worlds, and even the most secretive New Traders are only likely to carry cargo loads of goods from non-Commonality worlds a few times, before large corporacy ships start to undercut their prices and purchase these goods in bulk.

Trade Goods

The Trade Goods table in the ***Traveller Core Rulebook*** (pages 212-213) requires some minor changes. In addition to converting all Tech Levels to the appropriate Tech Indices, substitute the trade good types listed on Table 10-6: Modifications to the Trade Goods Table as appropriate. Also, the civilisation types (see "Civilisation Types", page 278) and civilisation characteristics (page 268) can also be used to determine corresponding trade codes.

Information Trading

Characters may engage in trading information, a commodity often more valuable than tangible goods. Sometimes sellers may experience delays as a buyer checks the accuracy of their information, but often selling information is faster and easier than transporting and selling goods.

System and World Resources and Trade

Star systems and worlds list plentiful and scarce resources (see Stellar Body Types, pages 238, and Planetary Types, pages 263). Most resources like hydrogen or water have no sale value, and are merely listed to indicate that that inhabitants of that system may be particular frugal or profligate with the resource. However, some resources, such as biochemicals, hydrocarbons, or radioactives, are trade goods: use the modifiers for scarce and plentiful resources on Table 10-5: Resource Scarcity Price Modifiers.

Table 10-5: Resource Scarcity Price Modifiers

Resource Availability	Purchase DM	Sale DM
Scarce	-4	+4
Plentiful	+4	-4

INFORMATION TRADING WITH CORPORACIES

Speculative trade is by its nature risky, but a small trader who discovers a new trade opportunity that appears profitable has another option: selling the details of that trade opportunity to a corporacy. The trade opportunity may not violate Commonality law (including laws against bypassing the Commonality embargo), and must be real and legitimate: the corporacy will want detailed sensorium and exomemory thoughtcasts from all its discoverers.

Table 10-6: Modifications to the Trade Goods Table

D66	Type
11	Personal Equipment (up to T7)
21	Advanced Personal Equipment (T8-T10)
32	Augmentations
45	Radioactives (include zanthrium* and zanthrium monopoles*)
46	Drones
62	Restricted Augmentations
65	Restricted Weapons

** Zanthrium and zanthrium monopoles are crucial components of ZIP cells, ZIP plants, and planing engines.*

The referee should handle the deal just as if the characters were making a physical trade, including Broker checks to find a supplier and a buyer, or the checks necessary to mine an ore-bearing asteroid or otherwise acquire trade goods. Then, the referee should calculate the profit the characters would make buying and selling one load of this cargo; the corporacy pays the characters one-half of this sum.

INFORMATION TRADING WITH NON-COMMONALITY WORLDS

Information trading with non-Commonality worlds is different. Typically, the information traded relates to the creation of goods or technology, and is only valuable to newly rediscovered worlds, or to worlds subject to embargo or quarantine. When selling such information, take the difference between the TI of the information and the TI of the world you are selling it to, add it to the Embargo Rating, then double the result. Add a fixed DM+6 for selling information to undiscovered worlds. Bear in mind that worlds rarely purchase information more than 2 TI higher than their own, because the information is typically so advanced as to be effectively meaningless; most worlds prefer to purchase information just 1 TI above their own.

Take this total DM and apply it to the Sale DMs from the Trade Goods table in the ***Traveller Core Rulebook***, and roll 3D on the Sale Price column of the Modified Price Table (***Traveller Core Rulebook***, page 211). Multiply that number by half the base price listed on the Trade Goods Table: the characters receive that price for their information.

For example, the characters are selling T9 manufacturing techniques to a previously undiscovered planet they recently contacted, using the category "23 (Advanced Manufactured Goods)" on the Trade Goods table on page 212 of the the **Traveller Core Rulebook.** *The characters discovered an industrial planet, so they gain no DM beyond the DM +6 for selling the information on a previously undiscovered planet. Because the planet is only 1 TI lower than the information the characters are selling, the buyers are willing to make the sale. The character performing the negotiations has Broker 4, for a total DM of 4+6 = +10. The referee rolls a 9 on the 3D roll on the Modified Price table, for a total of 19, yielding a purchase price of 140% of the sale price; divided by 2, this is 70%. From the Trade Goods table, the normal sale price for Advanced Manufactured Goods is Cr100000 x 70% = Cr70000, which is the characters' profit on this deal—assuming the Commonality doesn't learn what they've been doing!*

If the characters also include tools and equipment needed to manufacture the devices they're selling information about, the referee should multiply the number by the full base price. The necessary tools and equipment typically cost Cr10000 in the Commonality.

If the characters sell a small makepoint workshop designed to manufacture these goods, and which is also equipped with basic sentiences which can instruct users, then the characters receive three times this price. However, purchasing a specialised makepoint workshop costs Cr100000, and occupies requires 4 tons of cargo. The downside of this sort of trade is that it is usually highly illegal, and at worst equivalent to breaking quarantine.

Selling information about manufacturing weapons, planing drives, or restricted technologies results in the characters incurring a fine equal to three times any profit received, in addition to any other penalties such as therapeutic re-education (page 37). Selling peaceful, non-restricted technologies usually results in complete forfeiture of profits, but if the characters sold the information to an uncontacted world, then SCI Force's Evaluation Bureau may allow them to retain their profits if they're willing to help prepare the world for Commonality contact.

ECONOMIC SYSTEMS

Most trade outside the Commonality and some of the trade among the Fringe Worlds involves "money" (usually in the form of Rediscovery Era Credit Units). However, there are other options, depending upon the economic system used by a world (see Economic Development, page 272). Different cultures can have radically different economic systems.

The purpose of any economic system is to permit individuals to acquire the goods and services they need and to provide their own goods and services to others. There are many ways of achieving this, ranging from Stone Age barter to advanced systems based on complex interrelations of need and reputation that require artificial sentiences to manage. The following economic systems are the most common that humanity has developed. Some can be found at any TI, some may be superseded by others at higher TIs, and others may require a specific TI to become practicable. This section provides guidelines for handling trade and exchange of goods and services both within a particular economic system and between different ones.

Barter

***Example**: The Commonality Culture World of Abraxas.*

This is the oldest economic system, but also one of the least common. There's no high-level social organisation of labour or allocation of resources, and no sophisticated economy: surplus is simply exchanged by negotiation. Barter is the norm is T0 and T1 cultures and common in T2 societies, but quite rare at T3+, only found where cultures have deliberately abandoned economic systems, usually for moral or ethical reasons.

ACQUIRING GOODS IN A BARTER ECONOMY

Running barter transactions is simple; characters use the Broker skill to make deals and exchange items. Usually these items are exchanged for other items with relatively similar costs in credits, but extreme abundance or serious shortages can result in characters making deals that characters who rely on money would regard as drastically unequal. In a city with a food shortage, an individual might be more than willing to exchange jewellery or precious metals nominally worth Cr50,000 Cr for Cr5000 or even Cr500 of food. In a barter economy, any cash obtained via mustering out benefits must be immediately spent (ie taken as goods).

Confiscation

***Example**: The Venu Empire.*

This economic system is relatively common in oppressive states, especially those with Tech Indices between T2 and T4. In this system, the elites impose high taxes on all other members of society and use these taxes to enrich themselves. The vast bulk of the citizens are SOC 2-5, and are ruled by a small elite of SOC 11+ individuals, who enjoy most of the culture's wealth. In confiscation economies, people of SOC 6-10 are rare and typically represent a small class which works directly for the elites, or highly-skilled individuals like physicians and engineers who provide essential services.

ACQUIRING GOODS IN A CONFISCATION ECONOMY

Everyone below SOC 11 pays a 50% tax on all purchases. In some of these societies, a portion of this money is used to ensure that everyone receives at least Cr600/month, but in others even the poorest residents receive nothing. In contrast, individuals with SOC 11+ pay no taxes and instead receive Cr4000/month in addition to whatever money they earn. When calculating mustering out benefits for characters from confiscation economies, characters with a SOC of less than 11 must pay a 50% tax on all goods they purchase with cash they gain. Characters from confiscation economies whose SOC is 11+ instead gain a 20% bonus to all cash received from mustering out benefits.

Disinterested Resource Allocation

***Example**: The New Commonality of Humankind.*

This economic system is nothing more than a theoretical dream before T7, and does not become fully practical until T8. Designed to function swiftly, easily, and flawlessly, it ensures that all members of society not only have access to basic necessities, but can also acquire a modicum of luxuries and non-necessary goods with relative ease, often providing individuals with goods before they even realise they need them. It also recognises and rewards local and global renown, personal networks, and overall competence. Because they can only exist at T8+, cultures using this economic system tend to exist in highly affluent societies, where poverty and want have been banished due to the availability of ZIP cells, makepoints, and similar technological wonders.

ACQUIRING GOODS IN DISINTERESTED RESOURCE ALLOCATION ECONOMIES

In this economic system, the basic necessities of life are free, and luxuries and non-essential items are distributed based on a combination of how much an individual requires a particular item and that individual's contacts and personal influence. Goods fall into four categories.

- **Acquiring Trivial and Necessary Goods:** Trivial and Necessary goods are free for the taking. Food, clothing, modest housing, Mindscape access, and medical care, including both Mindscape and Longevity augmentations, all fall in this category, as do all goods with a price up to Cr1000. No rolls are necessary to acquire these goods. Individuals cannot acquire unlimited numbers of meals or suits of clothing at one time, but otherwise these goods are freely available to all citizens. In fact, predictive basic sentiences make certain that such goods arrive almost as soon as someone realises they want or need them: the resource allocation system knows you as well as you know yourself, and responds accordingly. However, if someone wishes to acquire more of a particular good than they need for personal use, then they must either provide a compelling reason, or roll to acquire them as Moderate goods.

Resource Points and Acquisition Checks

Resource points (RP) represent the difficulty and favours required to acquire non-trivial goods in Disinterested Resource Allocation and Interested Resource Allocation economic systems. Characters initially have a number of RP equal to their SOC, and must spend them in any successful attempt to acquire Moderate, Expensive or Extravagant goods. In addition, characters can add +2 to their check for every additional RP they spend. RP expended to acquire Moderate or Expensive goods recover at a rate of 1/month; those expended to acquire Extravagant goods are gone permanently, meaning the characters maximum recoverable RP will be lower than his SOC (but see ***Recovering RP and SOC*** *below).*

AIDING OTHER ACQUISITION CHECKS

When attempting to acquire goods, characters can benefit from the help of their comrades. Helping with an acquisition check is a chained task check in which the aiding character calls upon his own friends, allies, and reputation: success allows him to provide both a DM to the acquisition check and additional RP to the character making the acquisition check; failure imposes a negative DM on the check.

For aiding attempts to acquire ***Moderate and Expensive goods,*** *see Table 10-7: Task Chaining to Help With Acquisition Checks (Moderate and Expensive Acquisitions).*

- Provide Aid for Moderate or Expensive Acquisitions: *Difficult (10+) Admin check (1D hours, SOC).*

For aiding attempts to acquire Extravagant goods, see Table 10-8: Task Chaining to Help With Acquisition Checks (Extravagant Acquisitions).

- Provide Aid for Extravagant Acquisitions: *Very Difficult (12+) Admin check (1D days, SOC).*

RECOVERING RP AND SOC

RP expended when acquiring Moderate and Expensive goods within the Commonality normally recover at a rate of 1/month. Characters can also gain RP, including recovering those permanently lost when acquiring Extravagant goods, and even points of lost SOC, by gaining fame or performing valuable services for the Commonality, one of its instrumentalities, or for someone with a SOC of 11+. See Table 10-10: Actions to Gain and Recover RP and SOC for examples of such services. Characters may have total RP in excess of their SOC, but, once spent, the character only naturally recovers RP up to their SOC.

Characters may also increase their SOC. Any character who gains a number of RP greater than 3 x their SOC may permanently increase their SOC by +1, at the cost of all their RP in excess of their new SOC score. In any case, characters cannot increase their SOC above 15.

Table 10-7: Task Chaining to Help With Acquisition Checks (Moderate and Expensive Acquisitions)

Previous Check	DM to Current Check	Previous Check	DM to Current Check	Maximum RP Provided*
Failed With Effect -6 or less	-3	Succeeded With Effect 0	+1	4
Failed With Effect –2 to -5	-2	Succeeded With Effect 1 to 5	+2	8
Failed With Effect -1	-1	Succeeded With Effect 6 or more	+3	16

** This is the maximum number of RP the helping character can donate to the purchase. This character can choose to donate fewer RP or even no RP at all.*

Table 10-8: Task Chaining to Help With Acquisition Checks (Extravagant Acquisitions)

Previous Check	DM to Current Check	Previous Check	DM to Current Check	Maximum Permanent RP**
Failed With Effect -6 or less	-3	Succeeded With Effect 0	+1	1
Failed With Effect –2 to -5	-2	Succeeded With Effect 1 to 5	+2	2
Failed With Effect -1	-1	Succeeded With Effect 6 or more	+3	4

*** This is the maximum number of points of permanent RP the helping character can donate to the purchase. This character can choose to donate fewer permanent RP or even no permanent RP at all.*

LOSING RP AND SOC

Characters who become notorious, infamous, or otherwise antisocial may lose RP, or even points of SOC. RP lost in this way are temporary losses, and recover at the normal rate of 1/month. Any SOC losses are permanent, and can only be replaced by taking positive action (see above).

A character who loses RP in one month equal to or greater than (16 - SOC) x 2 must reduce their SOC by -1. SOC may not fall below 2.

Table 10-9: Actions Which Reduce RP and SOC

Action	RP or SOC Lost
Become infamous in a city or local subculture.	Lose 1D3 RP.
Significantly offend or inconvenience someone with SOC 11+ who isn't already a friend or companion.	Lose 1D3 RP.
Significantly offend or inconvenience a small-scale organisation (Scale 1-2).	Lose 1D3 RP.
Significantly offend or inconvenience several dozen citizens.	Lose 1D+1 RP.
Earn the long-term enmity of a small-scale organisation (Scale 1-2).	Lose 1D+1 RP[1].
Significantly offend or inconvenience a large and powerful instrumentality or corporacy (Scale 6-9).	Lose 1D+1 RP.
Become infamous across an entire planet or in a system-wide subculture.	Lose 1D+1 RP.
Earn the long-term enmity of someone with SOC 11+ who isn't already a friend or companion.	Lose 1D RP.
Earn the long-term enmity of a large and powerful instrumentality or corporacy (Scale 6-9).	Lose 1 SOC[1].
Become infamous throughout several star systems.	Lose 1 SOC.

[1] If the character has a connection to this organisation or to a nested or closely allied organisation, at the referee's discretion, the character may instead lose 2 OP worth of this connection.

Table 10-10: Actions to Gain and Recover RP and SOC

Action	Points Gained or Recovered
Gain fame in a city or local subculture.	Gain 1D3 RP[1].
Perform a significant favour for someone with SOC 11+ who isn't already a friend or companion.	Gain 1D3 RP[1].
Perform a significant favour for a smaller scale organisation (Scale 1-2).	Gain 1D3 RP[1].
Perform a significant favour for a group of at least several dozen citizens.	Gain 1D+1 RP[1].
Gain fame across an entire planet or in a system-wide subculture.	Gain 1D+1 RP[1].
Perform a major favour for someone with SOC 11+ who isn't already a friend or companion, such as saving someone's life or reputation, or performing a service they desperately need and can't find elsewhere.	Gain 1D+1 RP[1].
Perform a major favour for a smaller scale organisation (Scale 1-2).	Gain 1D+1 RP[1, 3].
Perform a significant favour for a large and powerful instrumentality or corporacy, or a major favour for a small corporacy (Scale 3-9).	Gain 1D+1 RP[1].
Perform a major favour for a group of at least several hundred citizens, or a significant favour for a group of at least several thousand citizens.	Gain 1D3 permanent RP[2], or +1 SOC.
Perform a major favour for a large and powerful instrumentality or corporacy (Scale 6-9).	Gain 1D3 permanent RP[2], or +1 SOC.
Gain fame throughout several star systems.	Gain 1D3 permanent RP[2], or +1 SOC.

[1] These RP may exceed the character's SOC (or Maximum RP, if the character has lost permanent RP), but will not recover naturally.
[2] These RP will replace any RP the character has lost permanently, up to his SOC. Any points which exceed his SOC may be spent normally, but will not recover naturally.
[3]:Alternately, the character can instead choose to gain 2 OP worth of connection to this organisation or one of its subsidiaries or nested organisations.

- **Acquiring Moderate Goods:** Moderate goods are relatively common and easily available goods that are not essential and which possess some degree of complexity, so that manufacturing them isn't completely trivial. Moderate goods cost up to Cr20,000.
  - *Acquire Moderate Goods:* Average (8+) Admin check (1D x 10 minutes, SOC); RP Cost: 1.
- **Acquiring Expensive Goods:** Expensive goods are at least difficult to produce and are not in high demand, so they require moderate effort to create. Expensive goods cost up to Cr400,000.
  - *Acquire Expensive Goods:* Difficult (10+) Admin check (1D hours, SOC); RP Cost: Listed Cr cost of goods/20000 (round up). For example, an item with a listed cost of Cr90,000 would cost 5 RP.
- **Acquiring Extravagant Goods:** Characters can attempt to acquire exceptionally expensive, rare, or difficult to produce goods within the Commonality, but doing so is very difficult. Purchasing Extravagant goods also requires characters to spend permanent RP, at a rate of 2 permanent RP per MCr1 cost of the item. RP spent in this fashion do not recover naturally, but see **Recovering RP and SOC** in the text box on page 210. Each additional point of permanent RP spent attempting to acquire Extravagant goods provides a DM+2 to the acquisition check.
  - *Acquire Extravagant Goods:* Very Difficult (12+) Admin check (1D x Days, SOC); RP Cost: 2 permanent RP per MCr1 of value.
- **Acquiring Unique Goods:** Some goods aren't merely complex or difficult to create, but actually unique. Artifacts from extinct alien civilisations, relics or works of art from Old Earth, or even simply a dwelling in a desirable location with a lovely view are all examples of unique objects. Unlike other attempts to acquire goods, all such goods must be acquired from a particular individual. The "cost" of this item is whatever that person is willing to trade it for. They might want a particular Expensive or Extravagant item, or they may wish a favour of some form or other. Any bargaining regarding the exact terms of this transaction are made using Broker checks to negotiate the deal: see the trading rules above for further information. Deals like this can be excellent hooks for adventures, and helping someone perform such a service can be a way to recover RP, permanent RP or even lost SOC points.

TRADE WITH MONEY ECONOMIES

Citizens of Disinterested Resource Allocation Economies who wish to trade with worlds or individuals which use money can easily do so. Most citizens simply sell goods they acquired in their home polity to customers in locations which use money. However, characters can also contact a group of traders and attempt to directly exchange RP for credits. Negotiating with these traders requires the Broker skill rather than the Admin skill, but otherwise the rolls to acquire Moderate goods or Expensive goods are identical. A successful check to acquire Moderate goods provides the character with Cr10,000, and a successful check to acquire Expensive goods gives the character Cr10,000/RP.

The starship No Regrets *is a New Trader who trades with recently recontacted worlds on the far edges of the Fringe. This starship recently acquired a cargo of superconducting resins and advanced armour within the Commonality, in return for 9 RP. The ship then travelled to the T6 Fringe world Cortal, which uses an unregulated money economy.* No Regrets *sold its cargo of resins and armour for Cr300,000. Then, it travelled back to the Commonality and exchanged these funds with a large Corporacy that also works on the Fringe, receiving 15 RP in return, making a profit of 6 RP.*

Individuals from the money-using cultures who wish to purchase goods within a Disinterested Resource Allocation economic system can either become citizens and use the standard method of purchasing goods, or they can engage in short-term trade. Individuals engaging in short-term trade make acquisition checks to acquire goods normally, but because they aren't citizens, they lack RP. Instead, they must go to an instrumentality, ministry, or corporacy that engages in this sort of trade and spend Cr20,000 Cr in return for one RP. Citizens who sell goods for credits in money-based economies can also exchange their credits for RP in the same fashion.

Trade Between the Commonality and the Fringe

Except on Culture worlds which have their own economies, the Commonality uses Disinterested Resource Allocation throughout its vast territory. As a result, all Commonality citizens are relatively wealthy, and most are considerably wealthier than the inhabitants of the lower TI worlds of the Fringe.

The primary individuals in the Commonality who trade with the Fringe are the somewhat infamous New Traders. Other Commonality citizens who want to travel to the Fringe and acquire credits, rather than having to sell their own goods, can exchange their RP for credits with New Traders. Visitors from the Fringe who wish to purchase Commonality goods, and returning New Traders who wish to exchange their credits for RP, must trade with one of the corporacies that trades with the Fringe and with new members of the Commonality. There is sometimes considerable tension between New Traders and the corporacies they trade with.

Interested Resource Allocation

***Example**: The Commonality Culture World of Unanimity.*

This economic system is similar to Disinterested Resource Allocation, except that that the elites actively maintain their own power and privilege by facilitating their access to luxuries and simultaneously restricting the ability of non-members to acquire them. Life in this economy is opulent for the elites, while remaining at least moderately good for the majority of the populace. One of the major sources of dissatisfaction is that social mobility is restricted, and few non-members are ever able to rise to join the elites. This economic system requires the same advanced real-time economic data and models as Disinterested Resource Allocation, and typically evolves out of that system when the power of the elites grows sufficiently for them to alter the structure of the economy, or is put in place by elites who wish to create a stable and moderately humane economic system but do not wish to sacrifice any of their privilege.

ACQUIRING GOODS IN AN INTERESTED RESOURCE ALLOCATION ECONOMY

The mechanics of acquiring goods in this economy are similar to those in a Disinterested Resource Allocation economies. The only difference is that this economy is biased towards its famous and powerful members: anyone with SOC 11+ has a number of RP equal to their SOC, but anyone with SOC 10 or lower only has RP equal to their SOC/2 (round up). So, a SOC 7 character has only 4 RP. In addition, SOC 11+ individuals acquire goods more easily, using the following checks instead:

- *Acquire Moderate Goods:* Easy (4+) Admin check (1D x 10 minutes, SOC); RP Cost: 1.
- *Acquire Expensive Goods:* Routine (6+) Admin check (1D hours, SOC); RP Cost: Listed Cr cost of goods/25000 (round up).
- *Acquire Extravagant Goods:* Average (8+) Admin check (1D x Days, SOC); RP Cost: 1 permanent RP per MCr of value.

Finally, all RP or SOC gains by SOC 10- individuals are halved (round up).

Unregulated Money Economy

***Example**: The Q-Zone pirate base of Gamelan Belt.*

This is the default economic system presented in the ***Traveller Core Rulebook***. Money, in the form of credits, is the basis of the economy, and exists as the sole unit of exchange. Characters earn money as salaries, via hourly work, and engaging in speculative trade or occasionally criminal activities. Prices are generally known to parties to a transaction ahead of time, and are relatively stable, although in some cases they can be modified using the Broker skill. While relatively easy to maintain, requiring little active management, and stable in the long term, these economies require at least some percentage of the population to be impoverished, and often lacking even the basic necessities of life. Also, their long-term stability comes at the cost of short term instabilities such as the infamous "boom-and-bust cycles". Despite these problems, unregulated money economies can be found all across Human Space, and are particularly effective at "filling the gaps" where more structured economic systems have not yet been implemented (often for technological reasons). They are particularly common in T2-T7 societies. Cash obtained as mustering out benefits is unmodified.

Regulated Money Economy

***Example**: Jendisti III, Dendryphon Protectorate.*

Regulated money economies typically evolve out of unregulated money economies, when either the rulers or the citizens wish to insure that the free market is not free to reduce some members of society to abject poverty and starvation. Regulated money economies tend to have lower crime rates and somewhat less violence than unregulated ones, due to a general lack of desperation among the poor. Regulated money economies can also be found all across Human Space and are common in T3-T8 societies.

Alien Economic Systems

Some exointelligences exchange information, goods and services, but in almost all cases their conception of an economic system often differs wholly from those used and created by humans. In rare cases, however—and in particular in exocultures of a similar Evolution Index to humankind (page 314)—systems of exchange may be comprehensible and even accessible to humans. In one, for example, an exoculture may be exchanging goods and services in vast, structured rituals; in another, an exchange medium conceptually analogous to money / credit may be used, but with values varying drastically, or even seemingly at random, depending on who an individual is buying from or selling to, or other, more nebulous factors. Exointelligences with Evolution Indices (page 314) of 3-4 (Pre-Human) or 5-6 (Low Human) may use systems similar to barter, or a mixture of barter and very simple confiscation; while those with Evolution Indices of 13-14 (Posthuman) or higher may exhibit complex relations of exchange that are beyond human comprehension (although Commonality hyperintelligences may relish the challenge…). In most cases, however, contact teams will have their work cut out even simply establishing meaningful communication with most exointelligences, let alone working out bases for trade and exchange. Rediscovered worlds and lost colonies are a much safer bet.

ACQUIRING GOODS IN A REGULATED MONEY ECONOMY

This type of economy functions much like an unregulated money economy, but with a few important differences. The most obvious is that all characters receive sufficient funds to bring their income up to Cr1200 per month, which insures that even the unemployed with no other source of income are not forced to starve or live in abject poverty. In addition, anyone who lives at a standard of living of High or greater must pay somewhat more for their standard of living, due to luxury taxes. See Table 10-11: Status and Taxes in Regulated Money Economies.

Finally, all goods costing more than Cr1000 are subject to a 10% tax, so a vehicle costing Cr4000 would instead cost Cr4400. This markup is also applied to goods of more than Cr1000 that are purchased with the cash characters acquire as mustering out benefits.

Planned Economy

***Example**: The recently recontacted Rowena Alliance.*

Planned economies are at least as old as unregulated money economies. At T2-T4, they are typically found in oppressive regimes, where the elites confiscate the wealth of all non-elites. The elites give back a pittance, while living in luxury. At these tech indices, planned economies typically devolve into confiscation economies, where the vast bulk of the citizens are SOC 2-5, a small elite of SOC 11+ individuals enjoy most of the culture's wealth, and almost no one holds SOC 6-10. Some of these societies offer the pretence of providing for all citizens and make certain that even the poorest members have the minimum necessities of life, while others do not. However, all are at least moderately oppressive.

At T5+, advances in data processing begin to offer methods of actually planning an economy in an organised and functional fashion. Most attempts to accomplish this at T5 soon become confiscation economies, but by T6, the easy availability of data and the ability to swiftly process it and create real-time models permit the creation of systems where life's basic necessities can be efficiently allocated to all citizens.

Table 10-11: Status and Taxes in Regulated Money Economies

Standard of Living	Cost/Month	Taxes	Suitable For
High	Cr2,200	10%	SOC 8
Very High	Cr3,000	20%	SOC 10
Rich	Cr6,250	25%	SOC 12
Very Rich	Cr16,000	33%	SOC 14
Ludicrously Rich	Cr28,000	40%	SOC 15

ACQUIRING GOODS IN A PLANNED ECONOMY

In T6+ planned economies, necessary goods are always free for the taking. Individuals cannot acquire unlimited numbers of meals or suits of clothing at one time, but otherwise they are freely available. Food, clothing, moderate housing, Mindscape access, and medical care all fall in this category, as do any goods with a price up to Cr1000. No rolls are necessary to acquire these goods, but if someone wishes to acquire more of a particular good than they need for personal use, then they must either provide a compelling reason for their needing the goods or purchase them.

Individuals are also freely given goods with a price up to Cr10000 if they can demonstrate a significant need for this item in their life or profession. Medikits and drugs for physicians, weapons and armour for mercenaries or bodyguards, p-suits for frequent space travellers are all examples of necessary gear. Similarly, someone who frequently travels both inside and between cities needing a reliable vehicle is another example of these sorts of goods. No rolls are necessary to acquire these necessary goods. Any goods that are more expensive than Cr10000 are purchased with money, and are

treated exactly like all other purchases. The only difference is because these goods are considered luxuries, their prices are all 50% higher due to taxes. A vehicle that would normally cost Cr20000 would instead cost Cr30000.

When calculating mustering out benefits for characters from planned economies, characters receive all goods costing up to Cr1000 and all goods necessary for their profession for free. However, goods which are not necessary or which cost more than Cr10000 cost 50% more.

Speculative Trade and Different Economies

The details of speculative trade depend upon the prevailing economic system in the market where the trade is taking place. In Disinterested and Interested Resource Allocation Economies, use RP and the commerce rules normally. When purchasing goods in a Regulated Money Economy, remember that all purchases cost 10% more due to taxes. Finally, there are two types of speculative trade in Planned Economies: private and public. Purchasing goods from a private individual in a Planned Economic System is subject to the same 50% tax found on all non-essential items. However, sometimes the local government or other economic planning authority has a surplus, and requires money to purchase needed goods from another polity. In these cases, you can purchase the goods free of tax. Members of the polity, and traders who have previously purchased goods and paid their taxes there, are better able to purchase these goods than outsiders. They may even be offered goods in exchange for acquiring supplies from another polity which the government or other economic planning authority needs.

A Transhuman Society

Commonality society is highly diverse. Some Fringe Worlds are inhabited by humans with varying degrees of enhancement; but just as many are hominids, xenomorphs, synthetics; some are not enhanced at all. In the Commonality Core, many populations are only nominally human; few Fringe Worlders would recognise them as the same species. Some individuals are autotrophs who no longer need to eat, others routinely change height, appearance, or sex, and many are visibly cyborged or possess customized body plans.

A vast array of beings consider themselves part of humankind. Intelligent vehicles and starships, city and planetary sentiences, and modified homo sapiens rub shoulders with standard humans. It's not yet clear what this means for the future of the species. Will one strain prevail? Will unmodified humans become extinct, replaced by an endlessly changing transhumanity?

The Commonality government tries to keep control. The Ministry of Evolutionary Planning regulates the Eidolon Compliances, and ensures that genurgy does not produce monsters. Yet life is becoming strange, and for every faction championing a bright future of self-directed evolution, another wants to turn back the clock on the gifts of transhumanity.

There are sentiences in the Commonality far beyond human norms. Some are the custodians; others run entire corporacies, or manage worlds. Most people do not deal with the reality that there are posthuman intelligences thousands of years old directing their lives; and perhaps that's how it should be. Maybe it's for the best that previously faceless administrative networks now have minds. But despite the impossibility of persistence of identity, synthetic sentiences only maintain human personalities because that's what their designers dictate. In the Expansionary Era, even the phenomenon of mind is spreading to the stars. Where will it lead us…?

CHAPTER ELEVEN
CULTURES

"On Old Earth news, like religion, had been illegal for millennia. But here, out on the Fringe, it was life itself. Worlds which had been isolated for thousands of years suddenly clamoured for information, and if the Commonality fought shy of giving people what they wanted because they might not be able to handle 'The Truth', well, hey—that was what we were for.

"We're the embargo runners. Some people call us criminals; some people say we're pirates. I say we're the lifeblood of the Commonality, keeping everything moving, keeping everything alive. Even if sometimes it hurts…"

—from "The Songs Of Old Earth", Book I —Jabe Macarthur, at his trial for Uncontrolled Information Dissemination, Shinchikyu, 193 NCE.

The Expansionary Era is a time of cultural upheaval. Thousands of worlds have been thrust together, and the Commonality is sweeping through them, trying to assimilate, integrate, and control. Cultures clash, form alliances, resist, and rebel; unscrupulous New Traders run embargoes to sell technology to the highest bidders. The result is chaos. This chapter provides rules for cultures and culture conflicts and how player characters can get involved, smuggling ideas and technologies, engaging in diplomacy, policing the Frontier, undertaking hazardous cultural operations as agents of the Commonality or their enemies. The galaxy is changing—and capable heroes can remould entire worlds to their designs!

WHAT IS A CULTURE?

A culture is "how people live"—a society's customs and values, the things it considers good, bad, worthwhile. It's the cause of war and conflict: when people "over there" do or believe things we think are "wrong", we try and persuade them of the error of their ways—often violently. Culture conflict has been the driving force behind much of history, and during the Expansionary Era that engine is in overdrive. Culture conflict is a major theme in ***Mindjammer***; cultures are changed by the process and even destroyed. This is what the Commonality is trying to avoid—or at least control—as it contacts lost colony worlds.

CREATING CULTURES

Create cultures like organisations (page 185). Like organisations, every culture has a Tech Index, Scale, Reach, and three memes. In addition, every culture is associated with a civilisation and may affect some of that's civilisation's characteristics, such as its Societal Development and Openness (pages 271 and 273). The primary difference between organisations and cultures is that organisations always have a specific purpose, which can be anything from an army protecting and defending its planet, to SCI Force integrating new worlds into the Commonality. Most cultures lack any obvious goals other than survival, and in some cases expansion; as a result, a culture's memes will generally relate to the following:

1. The culture's economic system.
2. Its degree of openness.
3. Its ideology.
4. Its core values.

Culture Tech Index

A culture's Tech Index represents its technological sophistication in seven key areas: armaments, biotechnology, comms, information, power, resource exploitation, and transport. These are known as **capabilities**. Usually a culture's Tech Index represents its sophistication in all seven capabilities; however, cultures may attempt to raise their Tech Index by improving their capabilities—see below.

A culture's Tech Index is the same as the civilisation which represents it. You can generate this from scratch or simply choose a Tech Index using the table on page 276.

Culture Capabilities

Instead of organisation competencies, cultures have **capabilities**, indicating if they're especially advanced in particular areas of technology or development. There are seven capabilities: Armaments, Biotechnology, Comms, Information, Power, Resource Exploitation, and Transport, described below.

By default, a culture is assumed to have a capability equal to its Tech Index in all seven fields. For example, a T9 culture would have T9 capabilities in the seven fields mentioned above. Under special circumstances, a culture may acquire new capabilities (page 220), which are marked as explicit capabilities in the culture's stat block. A single capability enables a culture to function at a +1 Tech Index **for that capability only.** Thus, a T7 culture with a +1 Power capability would function at T8 for its Power tech only, and may have access to rudimentary ZIP cells, etc.

Cultures may take a given capability twice. This enables that culture to function at a +2 Tech Index for that capability; our T7 culture with a +2 Power capability would function at T9 for its Power tech, indicating a more advanced ZIP cell capability. Operating at this level of capability is always a stretch, and often highly dangerous (see page 96).

A culture must have a capability at a certain Tech Index for members to learn related skills. Members of a culture without

Table 11-1: Armaments Capability

Tech Index	Capability	Prerequisite	Meme	Governing Skill
T0 – Post-Animal	Clubs			Survival
T1 – Stone Age	Bows and Spears			Survival
T2 – Metal Age	Blades	Resource Exploitation (Mining)		Profession (armourer)
T3 – Age of Enlightenment	Black powder		*Killing at a Distance Is Ignoble!*	Science (chemistry)
T4 – Industrial Age	Gunpowder		*Mass Casualties Are the Cost of War*	Science (chemistry)
T5 – Computer Age	Nuclear	Power (Electricity); Resource Exploitation (Industry)	*Mutually Assured Destruction; We Don't Deserve to Survive!*	Science (physics)
T6 – Age of Genurgy	Sonic Disruptors	As above		Science (physics)
T7 – First Age of Space	Null Weapons, Protein Disruptors		*Minimum Damage For Maximum Effect*	Science (physics)
T8 – Age of Ubiquitous Intelligence	Blasters	Power (ZIP); as above	*Blasters Cause Horrendous Wounds!*	Science (physics)
T9 – Second Age of Space	Torsion, Meson			Science (physics)
T10 – Age of 3-Space	Disintegrator			Science (physics)
T11 – Interdimensional Age	Displacer?			Science (physics)

the Comms (Mindscape) capability cannot learn technopsi; those without Transport (FTL) produce no 2-pilots, and so on. See "The Technological Context of Skills" (page 85) for more. New capabilities may also introduce certain **memes** to a culture, as shown in the appropriate capability table below. These memes may replace the culture's own memes, and are a consequence of its technological development. Roll 1D: on a 4-6, one of the culture's three memes is replaced by the listed meme. Roll a D3 to determine which of the culture's three memes is changed.

The seven capabilities and their prerequisites, memes, and **governing skills** (page 221) are as follows.

ARMAMENTS

This indicates the culture's ability to manufacture weapons. Any culture which deliberately acquires an Armaments capability above its Tech Index automatically replaces one of its memes with the *Militarism* meme.

Table 11-2: Biotechnology Capability

Tech Index	Capability	Prerequisite	Meme	Governing Skill
T0 – Post-Animal	Herbal			Survival
T1 – Stone Age	Herbal			Survival
T2 – Metal Age	Surgical		*We Can Conquer Death!*	Medic (medicine)
T3 – Age of Enlightenment	Surgical		*We Can Conquer Death!*	Medic (medicine)
T4 – Industrial Age	Surgical		*We Can Conquer Death!*	Medic (medicine)
T5 – Computer Age	Medical	Information (libraries)	*Doctors Are the Protectors of Life*	Science (biology)
T6 – Age of Genurgy	Biotech	Information (computers)	*Mutability of Body Plan; We Can Do Anything!*	Science (genetics)
T7 – First Age of Space	Genurgy		*What Is Human Anyway?*	Science (genurgy)
T8 – Age of Ubiquitous Intelligence	Genurgy		*What Is Human Anyway?*	Science (genurgy)
T9 – Second Age of Space	Genurgy		*What Is Human Anyway?*	Science (genurgy)
T10 – Age of 3-Space	Genurgy		*What Is Human Anyway?*	Science (genurgy)
T11 – Interdimensional Age	Transmutation?			Science (genurgy)

Table 11-3: Comms Capability

Tech Index	Capability	Prerequisite	Meme	Governing Skill
T0 – Post-Animal	Spoken			
T1 – Stone Age	Spoken			
T2 – Metal Age	Written		*We Can Share Our Knowledge*	Language
T3 – Age of Enlightenment	Printed			Profession (printer)
T4 – Industrial Age	Radiotelecommunication	Power (electricity)	*The World Is One*	Interface (comms)
T5 – Computer Age	Network			Interface (comms)
T6 – Age of Genurgy	Proto-Mindscape		*Cyberspace*	Science (Mindscape)
T7 – First Age of Space	Proto-Mindscape			Science (Mindscape)
T8 – Age of Ubiquitous Intelligence	Mindscape	Power (broadcast); Information (synthetics); Resource Exploitation (automated)	*Personal Insignificance; Power of the Mind; Science! Machines Will Take Over the World!*	Science (Mindscape)
T9 – Second Age of Space	Mindscape			Science (Mindscape)
T10 – Age of 3-Space	Mindscape			Science (Mindscape)
T11 – Interdimensional Age	Transdimensional Awareness?			

BIOTECHNOLOGY

Biological capabilities of T2 and above may impose the *Survival of the Fittest* and *Man Should Not Play God* memes at the Tech Index at which they're introduced.

COMMS

Comms capabilities of T2 and above may impose the memes *Separated and Yet Together* and *I Don't Like These New-Fangled Ways* at the Tech Index at which they're introduced.

INFORMATION

Information capabilities of T2 and above may impose the meme *I Don't Trust These New-Fangled Inventions!* At the tech index at which they're introduced.

POWER

Power capabilities of T3 and above may impose the memes *Science!*, *I Don't Like This Weird Technology*, and *Hey, This Will Take Our Jobs Away!* at the Tech Index they're introduced.

Table 11-4: Information Capability

Tech Index	Capability	Prerequisite	Meme	Governing Skill
T0 – Post-Animal	Memory			Art (storytelling
T1 – Stone Age	Memory			Art (storytelling)
T2 – Metal Age	Libraries		*Sacred Repositories*	Informatics (library)
T3 – Age of Enlightenment	Libraries			Informatics (library)
T4 – Industrial Age	Libraries			Informatics (library)
T5 – Computer Age	Computers	Power (electricity)	*Invisible Information Alienation*	Informatics (computers)
T6 – Age of Genurgy	Computers			Informatics (computers)
T7 – First Age of Space	Computers			Informatics (computers)
T8 – Age of Ubiquitous Intelligence	Synthetics	Resource Exploitation (automated)	*Personal Insignificance; Machines Will Take Over the World; What Is Intelligence, Anyway?*	Science (synthetics)
T9 – Second Age of Space	Synthetics			Science (synthetics)
T10 – Age of 3-Space	Synthetics			Science (synthetics)
T11 – Interdimensional Age	Total Information Awareness			Science (synthetics)

Table 11-5: Power Capability

Tech index	Capability	Prerequisite	Meme	Governing Skill
T0 – Post-Animal	Muscle			Athletics (strength)
T1 – Stone Age	Draught animal			Animal (training)
T2 – Metal Age	Mechanical	Resource Exploitation (industry)	*The World Is a Great Machine—And We Can Control It*	Engineer (power)
T3 – Age of Enlightenment	Steam			Engineer (power)
T4 – Industrial Age	Electricity		*Power Is Cheap*	Engineer (power)
T5 – Computer Age	Fission			Science (physics)
T6 – Age of Genurgy	Broadcast			Science (physics)
T7 – First Age of Space	Fusion			Science (physics)
T8 – Age of Ubiquitous Intelligence	ZIP	Information (computers)	*Power Is All Around Us; Power Is Free*	Science (physics)
T9 – Second Age of Space	ZIP			Science (physics)
T10 – Age of 3-Space	ZIP			Science (physics)
T11 – Interdimensional Age	Ubiquitous Energy			Science (physics)

RESOURCE EXPLOITATION

Resource Exploitation capabilities of T1 and above may impose the meme *We're Losing Touch With the Old Ways* at the Tech Index they're introduced.

TRANSPORT

Transport capabilities of T1 or above may impose a *Science!* meme at the Tech Index at which they're introduced.

INTRODUCING NEW CAPABILITIES

Cultures aren't static, and one of the ways they change is do gradually modify their Tech Indices. Usually this is a gradual improvement over time, but it's also possible for Tech Indices to fall, often catastrophically, as a result of social collapse, etc. This section discusses how characters can take actions to affect the Tech Indices of entire cultures.

Table 11-6: Resource Exploitation Capability

Tech index	Capability	Prerequisite	Meme	Governing Skill
T0 – Post-Animal	Hunter-Gatherer			Survival
T1 – Stone Age	Agriculture		*Mother Earth Provides*	Profession (farming)
T2 – Metal Age	Mining			Profession (mining)
T3 – Age of Enlightenment	Factories			Profession (inventor)
T4 – Industrial Age	Industry		*Men Become Machines*	Profession (inventor)
T5 – Computer Age	Robots			Science (robotics)
T6 – Age of Genurgy	Robots			Science (robotics)
T7 – First Age of Space	Automated	Power (electricity); Information (computers)	*Robots Will Take Over the World; Where Have All Our Jobs Gone?*	Science (robotics)
T8 – Age of Ubiquitous Intelligence	Automated			Science (synthetics)
T9 – Second Age of Space	Makepoint	Power (ZIP); as above	*A Future of Leisure and Happiness*	Science (physics)
T10 – Age of 3-Space	Makepoint			Science (physics)
T11 – Interdimensional Age	Materialisation?			Science (physics)

Table 11-7: Transport Capability

Tech Index	Capability	Prerequisite	Meme	Governing Skill
T0 – Post-Animal	Non-powered			Animal (training)
T1 – Stone Age	Wheel			Animal (training)
T2 – Metal Age	Stirrup			Animal (training)
T3 – Age of Enlightenment	Steam	Power (mechanical); Resource Exploitation (industry)	*These New-Fangled Machines Ain't Natural!*	Animal (training)
T4 – Industrial Age	Internal Combustion / Flight	As above	*These New-Fangled Machines Ain't Natural!*	Science (physics)
T5 – Computer Age	Power Cell / Near Orbit	Power (electricity); Information (computers)		Science (physics)
T6 – Age of Genurgy	Interplanetary		*We Can Spread to the Stars!*	Science (physics)
T7 – First Age of Space	STL Interstellar		*The Stars Are In Our Grasp!*	Science (physics)
T8 – Age of Ubiquitous Intelligence	Anti-grav			Science (physics)
T9 – Second Age of Space	FTL	Power (ZIP)	*Just One World Among Millions*	Science (physics)
T10 – Age of 3-Space	FTL			Science (physics)
T11 – Interdimensional Age	Transdimensional?			Science (physics)

Researching a New Capability

Characters may work with representatives of a culture (usually members of scientific communities) to improve its Tech Index. This is done by researching a single new capability for that culture. For example, characters may work with a T7 culture to research a new Armaments capability; if they succeed, the culture gains an Armaments 1 capability, meaning it's able to operate at T8 within the field of weapons manufacture, and now produce blasters, etc.

Researching a new capability is a skill check, usually using a specific Science, Social Science or other skill, known as a **governing skill**, where the PCs are working with a culture's scientists to help them understand the technological principles of the new capability. The governing skill speciality depends on the target capability, as shown in the Capability Tables above. For example, researching a T8 Armaments capability requires the Science (physics) governing skill.

- *Research a New Capability:* Very Difficult (12+) governing skill check (1D months, INT, EDU).

By definition, the culture's scientists probably won't have exactly the governing skill required. To begin with, their **personal Tech Index** is likely to be lower than that required; and their governing skill specialty might be more primitive, or perhaps only similar, to that required (see page 87 for more about increasing a character's TI with a particular skill).

A DM-2 is imposed per TI difference between the scientists' PTI and the TI of the target capability; and the timeframe is increased by one step (to 1D years) if either the PTI is too low or the governing skill speciality is not exactly the speciality required, or by two steps (to 1D decades) if both are true.

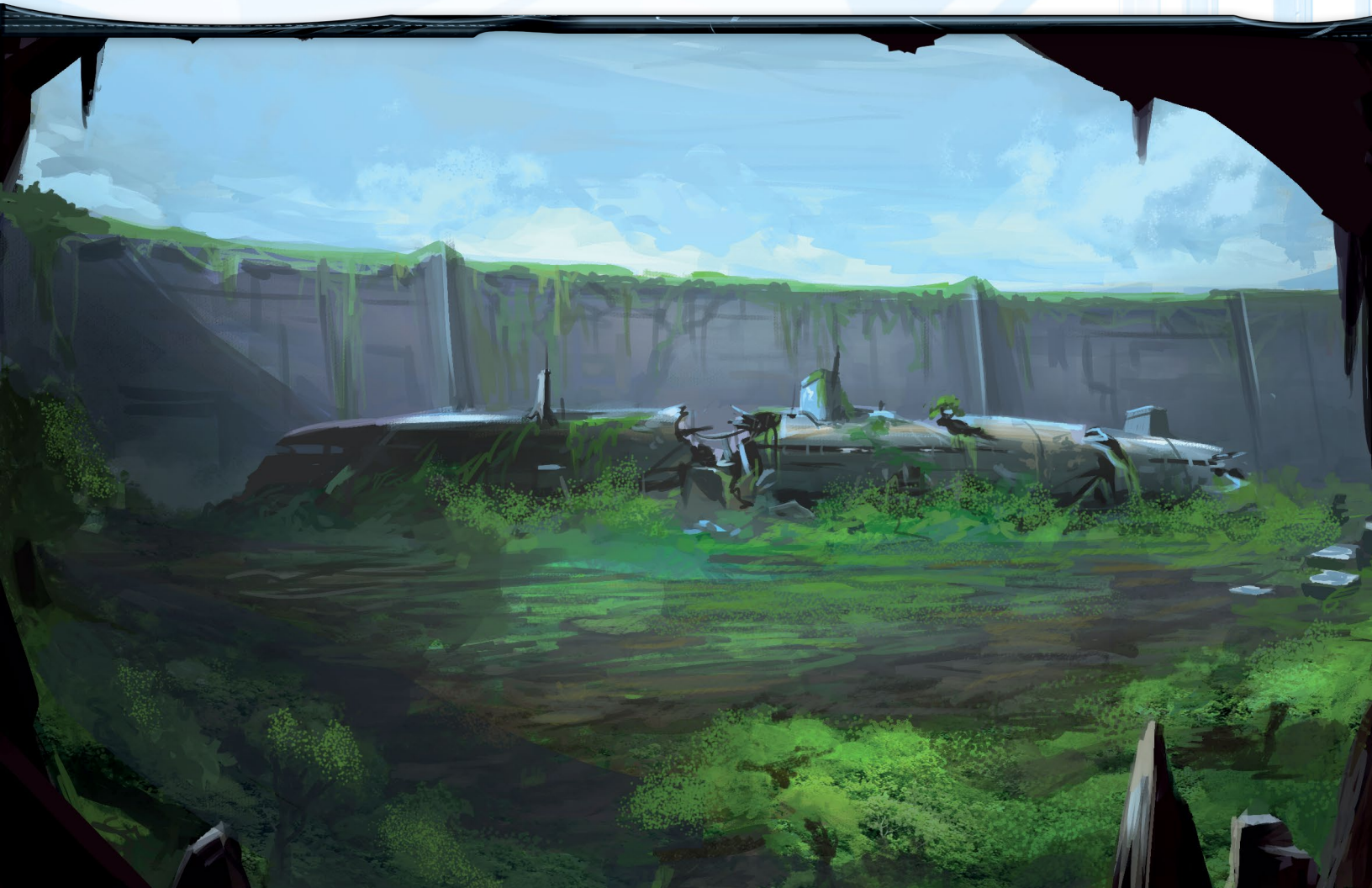
In either case, if one of the PCs is able to use the required governing skill specialty at the required PTI, then these penalties are avoided.

Note that the PCs must work in a dedicated research facility (this can be a starship lab) with the culture's scientists for the whole period of the check; if the research facility is destroyed, the check automatically fails and must be begun again in a new facility (the referee may allow a task chain check to "save some of the research" before the lab is destroyed).

RESEARCHING A SECOND CAPABILITY

It's possible to research a level 2 capability in any of the seven fields, enabling the culture to operate (somewhat hazardously) at 2 Tech Indices above its normal Tech Index in that capability. The same procedure as described above is followed, although the task check is slightly different:

- *Research a Second Capability:* Formidable (14+) Science (by capability) check (1D years, INT, EDU).



INCREASING A CULTURE'S TECH INDEX

If a culture ever has at least one capability in all seven capabilities, it automatically increases its Tech Index by +1. When this happens, all seven capabilities reduce by -1 accordingly, and the whole capability research process may start again.

Technology Transfer

Characters on cultural operations missions may introduce new capabilities to a culture by transporting actual physical examples of technologies to a world (weapons, planing engines, Mindscape nodes, etc). The device in question must be fully functional, and should at least have a basic power supply. Introducing a capability in this way is often a political act: the characters must decide which of a polity's factions to give the capability tech to, work with their scientists, etc; rival factions may try to thwart them or take the technology for themselves.

To transfer technology, characters must successfully contact representatives of a culture and engage in a process of explanation and mediation lasting several days. It's good to play out as much of this as possible, especially if there's dramatic opposition to what the characters are trying to do, but as some point a skill check should be made:

- *To Successfully Transfer a Technological Capability:* Difficult (10+) Admin, Diplomat, or Streetwise (as appropriate) check (1D days, SOC).

It's also possible to transfer technology using blueprints, broken devices, etc. In this case, the check is Very Difficult (12+).

The check is a chained task, which if successful provides a DM on the culture's efforts to research the new capability (see above).

RUNNING THE EMBARGO

The Commonality embargo is intended precisely to prevent this kind of technology transfer. Obviously, embargoed cultures frequently disagree, and **running the embargo** can be a highly lucrative, if illegal, activity.

Running the embargo is exactly what it sounds like: it's about sneaking past the sensor sweeps of q-ships, or blasting your way past a squad of system patrol boats, and physically delivering items of embargoed technology into the hands of a culture's scientists. If you're running the embargo as a key part of an adventure, we recommend playing it out in detail, perhaps using Stealth rolls or space combat. However, if you want a quick and easy roll for running the embargo as an activity which is secondary to your game's main action, you can use the following check.

- *To Run the Commonality Embargo:* Very Difficult (12+), or Formidable (14+) if the system is quarantined, Pilot check (1D hours or 1D minutes, DEX).

On a failed roll, the force imposing the embargo (probably the Commonality) knows of your presence and will attack with the forces at its disposal. Embargoed worlds are guarded by either at least one Quarantine Enforcer or System Patrol Boat (see pages 179 and 180), or by up to 1D+4 Space Combat Drones (page 178), some of which may be equipped with tractor beams rather than other weaponry. Some embargoed worlds are guarded by both a Quarantine Enforcer and a small group of Space Combat Drones.

MANIPULATING CULTURES

In ***Mindjammer***, it's possible for certain characters (such as SCI Force culture agents, memetic engineers, or even gestalt linguists) to manipulate the natures of entire cultures. Usually, accomplishing this involves modifying a culture's memes.

Cultural manipulation is difficult and time consuming, involving activities such as psy-ops, media broadcasts, propaganda campaigns, and much more. You can't try and modify more than one of a culture's memes at any one time, and your first step is selecting the meme you're going to try and change.

The difficulty of cultural manipulation depends on how much you're trying to change its meme. You can modify a meme very slightly, to become a different but similar meme; you can change it to a different but related meme; or you can replace it entirely with a completely unrelated or even opposed meme. The main restriction is that the new meme can't be completely opposite to either of the culture's other two memes.

CM Points

Cultural manipulation requires effort, represented by the accumulation of **Cultural Manipulation points** (CM points). See Table 11-8: Memetic Manipulations for the number of CM points needed to modify memes in these different ways. Once the characters have accumulated the indicated number of CM points, they may modify the target meme. However, this change doesn't happen immediately; see the **Time Required** column for how long it takes.

Characters can accumulate and boost CM points using several different types of cultural manipulation, including: **Cultural Analysis**, **Reliable Cultural Manipulation**, **Radical Cultural Manipulation**, and **Crisis Resolution**. These are described below.

Table 11-8: Memetic Manipulations

Degree of Memetic Manipulation	CM Points Required	Time Required
Change a meme into a similar meme	12 CM points	1D+3 weeks.
Change a meme into a related meme	25 CM points	1D+3 months.
Change a meme into an opposed meme	50 CM points	2D+6 months.
Change a meme into an unrelated meme	50 CM points	2D+6 months.

1. Cultural Analysis

Although it's not strictly necessary, a useful first step manipulating a culture's memes is to analyse that culture and try to determine the possible results and problems of the proposed manipulation. Characters must possess the Tactics skill, and either current surveillance data about the culture, or real-time Mindscape access to that culture.

- *Analyse a Proposed Cultural Manipulation:* Very Difficult (12+) Tactics (cultural conflict) check (1D x 4 hours, INT or EDU).

Success lets the characters determine the optimal strategy for the manipulation, and identify the most serious risks. Examples of optimal strategies include things such as creating commercial advertising or entertainment broadcasts hinting at the positive aspects of the desired manipulation; or offering a memoplex focused on education, physical fitness, or even proper etiquette, containing subtle attitude alterations. If the manipulation is successful, using the tactic indicated generates 50% more CM points (round up).

A minimal success on a cultural analysis check reveals a single optimal strategy, an average success reveals two; and an exceptional success reveals three. Each can be used only once.

The successful check also indicates the most likely memetic change if the manipulation attempt fails badly (page 229). It also reveals potential problems, challenges or side effects associated with the proposed manipulation, including whether it may spark social unrest or affect another of the culture's memes. The better the result of the cultural analysis check, the more information the players receive.

Characters performing cultural manipulations for a corporacy or instrumentality **must** make a cultural analysis check beforehand.

2. Reliable Cultural Manipulation

This is the safest yet slowest form of cultural manipulation. Characters conduct propaganda campaigns, subtly altering news sources, influencing entertainment storylines, engaging in disinformation campaigns, editing reference materials, and modifying relevant forms of advertising and publicity in ways that gradually change the opinions of readers and viewers. These efforts work slowly, but also have little possibility of backfiring, at least if the characters are careful. There are three parts to Reliable Cultural Manipulations: **design**, **implementation**, and **execution**.

DESIGN

The PCs decide on the cultural manipulation they want to perform. Are they designing an advertising campaign for a popular product that includes elements of the change they want to accomplish? For example, to increase acceptance of xenomorphs, they might design an ad campaign where a human wearing the clothing advertised sees a xenomorph wearing the same item, and is initially surprised, but then

Degree of Memetic Change

*When attempting to change a culture's meme, compare the current meme to the meme you want to change it into; the new meme will be either **similar**, **related**, **opposed**, or **unrelated**.*

SIMILAR MEMES

The two memes aren't identical, but they're both answers to the same question. For example, Outsiders Are Abominations and Should Be Destroyed *is not all that far removed from* Our Traditions Are Strong Enough That Outsiders Can Live Near Us, But We Must Never Interact With Them or Assimilate Their Unnatural Ways.

Likewise, Synthetics Are Intelligent Beings, But Their Inherent Inferiority Means They Don't Have Full Rights *is only a step away from* Synthetics Deserve the Same Rights As Any Other Sentient Being.

DIFFERENT BUT RELATED MEMES

The two memes aren't directly opposed to one another, but instead they're both answering completely different questions. For example, Outsiders Are Abominations and Should Be Destroyed *isn't really talking about the same things as* You Can Trade With Outsiders But Don't Take On Their Ways.

Likewise, Synthetics Are Intelligent Beings, But Their Inherent Inferiority Means They Don't Have Full Rights *isn't trying to answer the same question as* Synthetics Are Property Not People.

OPPOSED MEMES

The two memes are directly opposed to one another. For example, Outsiders Are Abominations and Should Be Destroyed *is the opposite of* Outsiders Have Valuable Customs We Can Learn Much From.

Likewise, Synthetics Are Property Not People *is the opposite of* Synthetics Are People Who Have the Same Rights as Everyone Else.

UNRELATED MEMES

The two memes have no connection to one another. For example, Xenomorphs Are Vile Abominations and Should Be Destroyed *has nothing whatsoever to do with* Treat Foreigners As Honoured Guests.

Likewise, Synthetics Are Property Not People *is totally unrelated to* The Poor Can Be As Virtuous As the Wealthy.

pleased. Are the characters adding a sympathetic character to a popular drama or comedy, who expresses views the characters wish to promote? Are they subtly altering local news and gossip streams to include more positive stories about xenomorphs, or fewer negative stories about them? Or are they using subliminal cues to convey their message, distributing them throughout the local Mindscape?

Don't require any checks at this point. Instead, the players should decide on the basic idea of the manipulation, and how they'll go about implementing it. Are they going to hack the local Mindscape to add subliminal cues, or are they altering Mindscape updates from other star systems that most residents of this planet think well of, to include false reports of changes? Or are they convincing, bribing, or blackmailing local advertising or entertainment executives to incorporate the elements they want?

IMPLEMENTATION

To implement these manipulations in cultures with a Mindscape, the characters must hack the local Mindscape, or convince someone with legitimate access to make the changes for them. Depending upon the method they choose, the characters must make Informatics, Persuade, or other appropriate checks. Once they have completed the implementation, they attempt the cultural manipulation check (see Execution below).

Low Tech Implementations

Implementation of reliable cultural manipulations works differently at TIs too low to possess a Mindscape or proto-Mindscape. T5 cultures often possess primitive data networks (like our internet), as well as non-networked mass media like radio and television; hacking a T5 data network is relatively easy, and unlikely to be discovered by the locals. However, non-networked mass media can't be hacked; instead, characters must physically convince someone with legitimate access to the media they wish to change to make the changes.

T4 cultures possess non-networked mass media like radio and television, but also lack the ability to fully regulate those media, enabling characters to create unlicensed "pirate" broadcasts to send out their messages.

*Things are very different when manipulating cultures of T3 or lower. Characters are limited to word of mouth, live entertainment (such as plays), and, in T2 and T3 cultures, "printed" communications. All these methods are slow. At T5, double the time required (see **Execution**); at T4, triple the time required, and at T3 and below, Reliable Cultural Manipulations require at least 1D years.*

Table 11-9: Reliable Cultural Manipulation Results

Result	CM Points Lost or Gained
Exceptional Success	+3 CM points
Average Success	+2 CM points
Minimal Success	+1 CM point
Minimal Failure	-1 CM point
Average Failure	-2 CM points
Exceptional Failure	-3 CM points

EXECUTION

Once the characters have found a way to implement their cultural manipulation, it's now time to roll to see how well it worked. At T6+, Reliable Cultural Manipulations require 1D months before the character can make the cultural manipulation check. Cross-reference the success level on Table 11-9: Reliable Cultural Manipulation Results.

- *Perform a Reliable Cultural Manipulation:* Very Difficult (12+) Social Science (memetics) check (1D x months, INT or EDU).

3. Radical Cultural Manipulation

Characters who need to complete a cultural manipulation by a specific date, or who are simply too impatient to use slow but more reliable methods, may attempt a **Radical Cultural Manipulation**. This entails more powerful, but less ethical and less reliable operations that involve forcibly altering minds. There are two main types of Radical Cultural Manipulation in Mindscape-using cultures: altering the minds of cultural leaders; and altering the minds of the populace.

The easiest and most direct approach to Radical Cultural Manipulation is to create a **memoplex** containing the desired memetic changes, and then to convince people to accept it. Obviously, few members of a culture which fears and hates free synthetic sentiences will accept a Love and Respect Synthetics memoplex, so a degree of subtlety is called for. For example, characters may create a memoplex with a related purpose which contributes to that goal, such as providing an understanding of new technology, improved interpersonal skills, or knowledge of the rules and strategies of a new game or other form of entertainment, and incorporate the intended memetic changes into that memoplex.

Alternatively, characters may perform these modifications without the target's permission, for example by creating **fictionals** (page 135) that insert events into their memories that

support the manipulation.

Characters creating fictional memories must ensure they're sufficiently well integrated into the subject's life that they don't clash with other memories, and also that everyone affected doesn't have **exactly** the same memory. If multiple fictional recipients realise they **all** remember a helpful synthetic named Jorash saving them from drowning in a remote lake in a forest, they and everyone who hears them talking will know something shady is going on. Memetic changes must be gradual, subtle, and, in the case of fictional memories, personalised to a degree, all of which are more difficult than more obvious memetic changes.

In either case, even if a person isn't known to have accepted a new memoplex or have had a fictional inserted into their memories, drastic changes in worldview will always make other people suspicious. See Table 11-10: Widespread Mental Manipulation Results.

- *Alter the Minds of Part of the Population:* Formidable (14+) Social Science (memetics) check (1D months or 1D weeks, INT).

If the population is less than 1 million (see page 270), the manipulation requires 1D weeks; otherwise it requires 1D months. In each case, 1% of the population is affected per point of Effect; at least 10% of the population must accept the memoplex or fictionals to affect the entire culture.

Table 11-10: Widespread Mental Manipulation Results

Result	CM Points Lost or Gained
Exceptional Success	+3 CM points
Average Success	+2 CM points
Minimal Success	+1 CM points
Minimal Failure	-2 CM points
Average Failure	-4 CM points
Exceptional Failure	-6 CM points

The above issues are exacerbated with cultural leaders, where the public opinions of major religious officials, politicians, and sports and entertainment celebrities are often well-known. If a cultural leader's world view suddenly and drastically changes, many will wonder why, and inclined to distrust. See Table 11-11: Cultural Leader Manipulation.

- *Alter the Minds of Cultural Leaders:* Formidable (14+) Social Science (memetics) check (1D x Months, INT).

4. Crisis Resolution

The fastest and often most effective means of cultural manipulation is to help resolve a crisis related to the meme

Table 11-11: Cultural Leader Manipulation	
Result	**CM Points Lost or Gained**
Exceptional Success	+6 CM points
Average Success	+4 CM points
Minimal Success	+2 CM points
Minimal Failure	-3 CM points
Average Failure	-6 CM points
Exceptional Failure	-9 CM points

the characters are attempting to modify. For example, off-worlders curing a plague or providing aid after a natural disaster may accumulate CM points to change memes making the culture more open or welcoming to off-worlders. Similarly, if the characters were attempting to reduce prejudice towards xenomorphs or synthetics, having a group of xenomorphs or synthetics risk their lives saving victims of a natural disaster or preventing a mass casualty terrorist attack would serve their agenda very well.

Depending upon how closely the situation is to the desired memetic change, and how successful the resolution of the crisis is, efforts like this generate 1-6 CM points. Gaining 6 CM points represents a highly successful event that directly supports the characters' targeted memetic change.

For example, if the characters are modifying an Anti-Xenomorph *meme to reduce its hostility, having half a dozen xenomorphs risk their lives saving hundreds of innocent humans from being blown up by a human terrorist's bomb would be ideal. If the xenomorphs save all the humans, and defeat the terrorists with minimal bloodshed, then the characters gain 5-6 CM points. If the xenomorphs die heroically attempting to save the humans, but ultimately fail, or if they only save most of the hostages, but not all, then the characters might gain only 3-4 CM points. If the xenomorphs fail utterly, but are seen attempting to help, then the characters might gain only 1-2 CM points.*

Crisis resolution can also backfire. In the above example, if the xenomorphs brutally slaughter the terrorists and accidentally kill a handful of hostages, then they may seem more threatening than helpful. The characters may gain no CM points, or even subtract -1 CM point. If the xenomorphs are

No Mindscape and Low Tech Implementation

Implementation of Radical Cultural Manipulation works differently at lower TIs. On TI8- worlds, and / or worlds where the Commonality has not provided Mindscape access and given much of the population Mindscape implants, the covert mental hacking of large numbers of people and the creation of mass popular memoplexes are impossible. Instead, Radical Cultural Manipulation focuses on cultural leaders, and typically involves giving them Mindscape implants. Some can be convinced to accept implants voluntarily; others may be abducted and given implants without their knowledge. In this second case, implants are typically used to provide memoplexes or fictionals, then deactivated to prevent the target from realising anything has been done to them.

Table 11-12: Staging a False Flag Crisis In Secret	
Success Level	**Result**
Exceptional Success	The characters left no evidence and no one will ever figure out what they did.
Average Success	Everyone believes the deception, but if an investigation occurs someone might find out. The lack of clear evidence means the worst possible result of an investigation is widespread suspicion, which halves (round down) the CM points gained from the event, but otherwise doesn't cost the characters any additional CM points.
Minimal Success	As Average Success, except that if an investigation occurs it will find enough evidence to mostly discredit the event, removing all the CM points gained from the event, but otherwise it does not cost the characters any additional CM points.
Minimal Failure	There is sufficient suspicion about the event that even if no one investigates, the number of CM points gained is halved (round down). If an investigation occurs, it reveals that elements appears to have been staged, negating all CM points gained, and reducing the CM point total by an additional -2 points. Increase this to -4 CM points if the event resulted in the loss of innocent lives, or in serious injury or large-scale property destruction.
Average Failure	Others have discovered the truth about the event the characters staged. Remove all CM points gained, and subtract an additional -6 points, or -12 if the false flag resulted in innocent deaths, serious injury, or large-scale property destruction.
Exceptional Failure	As Average Failure, plus the characters are clearly identified as the perpetrators of the false flag.

exceedingly violent and / or unlucky, the incident may cost the characters up to 6 CM points.

FAKING A CRISIS: "FALSE FLAG" ACTIONS

The main problem with crisis resolution is getting just the right crisis you want. Sufficiently desperate or unscrupulous characters may instead stage a crisis that they can then arrange to resolve in a manner that benefits their cause. Success at such a **false flag** produces no more CM points than a real crisis, but it does allow the characters to use crisis resolution where they wouldn't otherwise be able to do so. However, false flags come with grave risks.

For a false flag to succeed, its true nature must be kept secret, requiring a check which must be made **after** the false flag has taken place. Unfortunately, sometimes secrets get out; see Table 11-12: Staging a False Flag Crisis.

- *Stage a False Flag Crisis in Secret:* Very Difficult (12+) Deception check (1D x 4 hours, INT).

Common Modifiers

The following factors can modify the number of CM points required for a given cultural manipulation, or (in the case of organisational assistance) the number of CM points gained or lost in the course of a single cultural manipulation.

SCALE AND REACH

The number of CM points required for cultural manipulations listed in the sections above are for cultures with Scale 6 (Planetary), and with a Reach up to Reach 6 (Planetary), ie those occupying a single planet or star system. For cultures of larger and smaller Scale, and for those of greater Reach, the number of CM points required to effect a cultural manipulation may be greater or smaller. Checks to analyse and perform cultural manipulations are modified similarly, as is the time required for those manipulations. See Table 11-13: Scale Modifiers For the Culture Being Manipulated and Table 11-14: Reach Modifiers For the Culture Being Manipulated. Note that all modifiers are cumulative.

For cultural manipulations on cultures spanning multiple star systems, characters must accumulate at least some of their CM points in each component star system, or alternatively affect only part of the culture, as it manifests itself in the areas where the characters are active.

Organisational Assistance

Small groups of individuals using T9+ technology can carry out often large-scale cultural manipulations, but their efforts

Altering an Organisation's Memes

In **Mindjammer**, *cultures are a type of organisation. Since it's possible to change cultures, it's also possible to change organisations, in a similar way. The main difference is that non-culture organisations tend to have goal-oriented memes, and so changing them requires interacting with those goals.*

Reliable and Radical Organisation Manipulations are similar to their cultural counterparts. Crisis Resolution is different. A crisis in an organisation usually occurs either because it can't complete a project, or because it's doing so ineffectively.

For example, an organisation with a Peace Comes From Discipline and Obedience *meme is using force to ensure a planet's peace and prosperity. It's facing increasing riots, civil disobedience, and economic problems. That's the crisis to be solved.*

If the characters want to alter the organisation's meme to a related meme—say, Peace and Order Come From Cooperation*—then they can gain CM points by working as peaceful negotiators and mediators to help resolve the planet's problems.*

As with other types of crisis resolution, characters can also create fake crises for organisations and then help solve them. Doing so carries the same risks of failure as false flags for cultures.

Table 11-13: Scale Modifiers For the Culture Being Manipulated

Scale	Modified CM Point Total	Time	DM
Scale 3 (Enormous) or smaller	x 0.25	x ¼	DM+4
Scale 4 (Regional)	x 0.5	x ½	DM+2
Scale 5 (Continental)	x 1	x 1	DM+1
Scale 7 (Interplanetary)	x 2	x 2	DM-2
Scale 8 (Interstellar)	x 4	x 4	DM-4
Scale 9 (Galactic)	x 10	x 10	DM-8

Table 11-14: Reach Modifiers For the Culture Being Manipulated

Reach	Modified CM Point Total	Time	DM
Reach 5 (Continental) or lower	x 0.75	x 0.75	DM+1
Reach 7 (Interplanetary)	x 2	x 2	DM-2
Reach 8 (Interstellar)	x 4	x 4	DM-4
Reach 9 (Galactic)	X10	X 10	DM-8

are made far easier and far more reliable if they're assisted by a large organisation. However, not all forms of this organisational assistance are equally effective.

ORGANISATIONAL ASSISTANCE BY ORGANISATIONS SPECIALISING IN CULTURAL MANIPULATION

Characters who have spent at least one full term in the Explorer (contact specialist) or Security (agent) specialisations have contacts in organisations specialising in cultural manipulation. The two most well known examples are SCI Force and CORESEC. Assistance by these organisations provides their appropriate DMs in competencies such as Social Science (cultural conflict) or Deception to cultural analysis checks, checks to design reliable or radical cultural manipulations, and checks to conceal false flag operations. See page 188 for more on competency DMs.

These organisations also help characters optimise and double check their plans, provide support, and create sophisticated models to reduce risk. Halve all CM point losses (round up) due to failed cultural manipulation checks. However, CM point losses due to false flag operations becoming known are unaffected.

Characters gain the organisation's appropriate competency DM to convince local Mindscape dirigeants to accept local Mindscape alterations enabling reliable or radical cultural manipulations. However, to gain this assistance, the organisation must agree to the manipulations the characters intend.

ORGANISATIONAL ASSISTANCE BY OTHER ORGANISATIONS

Other organisations (such as corporacies) are interested in cultural manipulations, but although they have vast resources, they may lack the appropriate competencies—the specialised and higher proprietary knowledge and techniques possessed by CORESEC and SCI Force.

As per the rules on organisational competencies (page 188), assistance by such organisations provides only half the normal DM (round up) to cultural analysis checks and checks to design reliable or radical cultural manipulations, and half the normal DM (round up) to Deception checks to conceal false flag operations, unless the organisation has the appropriate competency. Additionally, halve all CM point losses (round up) due to failed cultural manipulation checks, but only for Reliable Cultural Manipulations. Once again, the organisation must agree to the manipulations the characters intend.

Subcultures

By definition, a subculture is part of a larger culture. Subcultures are the cultural equivalent of nested organisations, and have a Scale and usually Reach that is at least one point lower than that of the culture they are part of (referred to as the **parent culture**). Every subculture is separated from its parent culture because one or two of its memes are different from the parent culture's memes. However, any subculture that ceases to share any of its three memes with its parent culture becomes a separate and different culture.

Most subcultures also manifest some other form of separation from the parent culture. The inhabitants of a sparsely inhabited space station or moon might be a subculture of the densely inhabited planet it orbits, just as all members of a particular genotype on a planet or in a star system might be a subculture of that planet or star system. Individual star systems that are part of a larger polity, like the Commonality, the Sentient Alliance, or the Zarus Dominate, are often separate subcultures.

Depending upon the cultural manipulation desired, affecting a subculture may be easier or more difficult than manipulating the parent culture. This depends on whether the characters are attempting to make the subculture more like or more connected to the parent culture, less like or less connected to the parent culture, or whether the change has no clear relationship between how alike or close the subculture is to its parent culture.

In addition to using all of the common DMs listed above, the DMs shown in Table 11-15: Subculture Manipulations also apply to checks to manipulate subcultures. All DMs are cumulative with other cultural manipulation DMs. Also, when calculating DMs for Scale and Reach, always use the Scale and Reach of the subculture and not the parent culture.

CULTURAL MANIPULATION SIDE EFFECTS

Manipulating memes can change other aspects of a culture, including increasing or decreasing the characteristic scores of the civilisation the culture is part of (see "Civilisation Types and Characteristics", page 268). Depending upon its nature, changing a cultural meme may change its civilisation's Societal Development, Openness, or Trade Index.

The extent of these changes depends on how much the characters modify a given cultural meme, and how closely connected the meme is to the characteristic in question, as follows.

- **Modifying a meme to a related meme** only affects Societal Development, Openness, or Trade Index if the meme directly concerns attitudes to economics, outsiders, or trade. The memetic change modifies the characteristic up or down by 1 point.
- **Modifying a meme to a similar meme** changes Societal Development, Openness, or Trade Index by 1 point if the meme indirectly concerns attitudes to outsiders or trade, and by 2 points if directly.
- **Modifying a meme to an opposed or unrelated meme** changes Societal Development, Openness, or Trade Index by 2 points if the meme indirectly concerns attitudes to

Table 11-15: Subculture Manipulations

Type of Manipulation	Subculture Location	DM
Attempting to reintegrate a subculture back into its parent culture by removing its last memetic differences.	Members of the subculture live alongside the members of the parent culture.	DM-2
Attempting to cause a subculture to become more like its parent culture.	Members of the subculture live alongside the members of the parent culture.	DM+1
Attempting to cause a subculture to become less like its parent culture.	Members of the subculture live alongside the members of the parent culture.	DM-2
Attempting to transform a subculture in ways that do not affect how like or close it is to its parent culture.	Members of the subculture live alongside the members of the parent culture.	No DM
Attempting to transform a subculture into a separate culture by changing the last meme it shares with the parent culture.	Members of the subculture live alongside the members of the parent culture.	DM-4[1]
Transform specific members of a culture into a new subculture	Members of the new subculture live alongside the members of the parent culture.	DM-4[1]
Attempting to reintegrate a subculture back into its parent culture by removing its last memetic differences.	Members of the subculture are physically distant from the members of the parent culture.	DM-2[2]
Attempting to cause a subculture to become more like its parent culture.	Members of the subculture are physically distant from the members of the parent culture.	No DM
Attempting to cause a subculture to become less like its parent culture.	Members of the subculture are physically distant from the members of the parent culture.	DM-1
Attempting to transform a subculture in ways that do not affect how like or close it is to its parent culture.	Members of the subculture are physically distant from the members of the parent culture.	No DM
Attempting to transform a subculture into a separate culture by changing the last meme it shares with the parent culture.	Members of the subculture are physically distant from the members of the parent culture.	DM-2[2]
Transform specific members of a culture into a new subculture.	Members of the new subculture are physically distant from the members of the parent culture.	DM-2[2]

[1] *Also multiply the required CM point total by 2.*
[2] *Also multiply the required CM point total by 1.5 (round up).*

outsiders or trade, and by 4 points if directly.

For example, changing a Money Sullies Both Buyer and Seller *meme to an opposed meme such as* Financial Acumen Is a Moral Virtue *is a modification that only indirectly concerns attitudes to trade, but nevertheless is sufficiently drastic to increase a civilisation's Trade Index by +2 points.*

In contrast, changing a Trade With Outsiders Pollutes Our Moral Purity *to an opposed meme such as* Trade With Outsiders Lets Us Demonstrate Our Superiority *directly concerns trade. Making this change increases a civilisation's Trade Index by +4 points, and the referee also rules that the change increases the civilisation's Openness by +2, as the meme indirectly concerns Openness.*

These changes may in turn affect the modifiers to other civilisation characteristics derived from the altered characteristic, and so indirectly change the civilisation's Control Index, Tech Index, Embargo, Starport, or even Mindscape rating, as the culture becomes more interested in more sophisticated technology, interstellar contact, and greater Mindscape access.

For example, changing a Foreigners Are Liars and Their Ways Are Anathema *meme to a related but less hostile* Tolerate Foreigners As Long As They Respect Our Ways *may change a civilisation's Openness characteristic by +2 points, increasing it from 3 (Resistant) to 5 (Equivocal). This increase has a knock-on effect, in turn changing the civilisation's Trade Index DM from -2 to +0, its Tech Index DM from -1 to +0, and its Mindscape DM from -2 to +0, which in turn modifies its Trade Index, Tech Index, and Mindscape Facilities characteristics by a corresponding amount.*

Changes to civilisation characteristics caused by cultural manipulations require 2D+6 months to take effect, calculated from the point at which the memetic change has taken place.

For example, 2D+6 months after the culture's meme has fully changed to Tolerate Foreigners As long As They Respect Our Ways*, its civilisation's Openness characteristic increases from 3 (Resistant) to 5 (Equivocal), and its Trade Index* increases by *+2. A significant percentage of the population now strongly supports efforts to increase their Tech Index and substantially upgrade their Mindscape, both of which the Commonality will be happy to help with.*

Manipulation Failure

Characters may not continue to attempt cultural manipulations if they've had repeated failures. The culture will become suspicious of the change the characters are pushing, and the effort must be abandoned. If the characters' CM point total becomes negative, the cultural manipulation begins to collapse, and the characters need to work to prevent further failures. If the CM point total drops to -5 or lower, then resistance to the attempted manipulation increases, and the characters must apply a Bane to all further cultural manipulation checks. This Bane ends once the CM point total reaches 0 or higher. If the CM point total drops below -10, widespread cultural backlash occurs and, if they continue their efforts, the characters must accumulate double the CM points to accomplish their goal.

An exceptional failure on a Radical Cultural Manipulation check, or an average or exceptional failure on a Deception check to cover up a false flag, causes members of a culture to correctly deduce external forces are attacking their culture. If the Commonality is known to the culture, anti-Commonality sentiment will rapidly rise. If the Commonality is not known, the culture suffers a general increase in xenophobia and paranoia. In either case, if left unchecked this fear could replace one of the culture's other memes with a meme like *The Commonality Is Our Enemy and Will Destroy Our Way of Life* or *We Must Defend Ourselves From Hidden Attackers.*

REDISCOVERY

The Commonality is exploring human space, rediscovering lost Old Earth colonies which may have been founded millennia ago. Its goal is, on the surface, simple: to welcome the lost colonies back into the fold, and let them join the Commonality's vibrant and expanding interstellar civilisation.

In reality, of course, things aren't quite that simple. To begin with, not every rediscovered world **wants** to join the Commonality. Indeed, some of them react very badly to the perceived alien invaders turning up on their planetary doorsteps with what looks suspiciously like an ultimatum. And some of the lost colonies have ideologies which are not only antisocial, obnoxious, or xenophobic, but sometimes so powerful that they would act like a raging destructive virus if the new world were allowed to interact unrestrictedly with the other worlds of the Commonality.

In all these cases, the Commonality believes it has a duty to intervene, to ensure that its contact with the lost colony results in the best possible outcome for all concerned—even if it is the Commonality that decides what that means.

Culture Conflict

Culture conflict is the term we use to refer to the situation when a rediscovered world's culture isn't immediately compatible with the Commonality. Sometimes it's pretty low-level: the **Transmigration Heresy** (page 91) is a frequently encountered example of culture conflict which is relatively mild, as long as it's dealt with quickly. At other times, culture conflicts are much more intense; a rediscovered world may react with violence against the Commonality. Of course, the Commonality usually has enough firepower to reduce any rediscovered culture to its component atoms if it so chose, but that's not something (officially, at least) that's on its agenda: instead, the Commonality tries to defuse the tensions in the rediscovered culture that are forcing it to turn to violence.

Sometimes, culture conflicts occur within the Commonality itself—and even in the Core Worlds. Cultures change over time, and events happen which may result in destructive memes which are automatically at odds with those of the Commonality culture.

Characters may participate directly in culture conflicts: either on the side of the Commonality, usually attempting to change a culture's memes so it becomes non-violent and accepting of the Commonality; or on the side of the conflicting culture, attempting to preserve its own values and memes against the overwhelming might of the Commonality. The rules above show how to conduct cultural manipulations in rules terms; the sections below discuss how these rules may be deployed in play.

CULTURAL OPERATIONS

You can include cultural operations in your ***Mindjammer*** game, either as one-off encounters or parts of scenarios, or as themes for your entire campaign. Cultural operations usually involve characters with appropriate backgrounds and skills, such as Social Science (memetics) and Tactics (cultural conflict), conducting cultural manipulation actions and analyses. The two main bodies in the Commonality which undertake cultural operations are SCI Force and CORESEC; they have very different philosophical approaches to cultural manipulation, and there's no love lost between them.

SCI Force: The Security and Cultural Integrity Instrumentality

The structure of SCI Force is more fully described on page 199. It operates principally out on the Commonality Fringe, dealing with the lost colonies which are being rediscovered every day, and working out strategies and cultural manipulations for safely and peacefully integrating them into Commonality society. While it's a fiercely professional and occasionally ruthless instrumentality, with some frightening capabilities, it's generally regarded as a benevolent force—especially as most of its agents and operatives are recruited from the Fringe themselves.

CORESEC

CORESEC is the ruthlessly efficient and overbearing arm of CORESPAN, the Core Worlds Pansectorate, and a branch of the Internal Security Instrumentality (page 197). Its agents are responsible for maintaining the often baroque social structures and behavioural regimes of the Core Worlds, and suppressing opposition, dissent, and aberrant thought or behaviour where such things are deemed a concern. They're regarded with some fear by the citizens of the Core Worlds, as they have wide-ranging and intrusive powers, and undertake cultural operations—however repressive and draconian—to preserve the stability and cohesion of the Commonality Core.

THE STAGES OF CULTURAL INTEGRATION

Over the past two hundred years since the beginning of the Rediscovery Era, SCI Force has refined its approach to cultural integration, to the extent that it today identifies five discrete stages of the process. When a lost colony world is rediscovered, SCI Force decides which of these stages are appropriate for the culture's integration (not all of them are always necessary), and dispatches cultural operations teams to start work. CORESEC's processes tend to be much more monolithic and obscure than those of SCI Force—probably because SCI Force has much more work on its hands, and needs to have ready-made processes which can be rolled out to new cultural ops teams in a modular fashion, and also probably because, well, CORESEC likes mystery, secrets, and skulduggery. Nevertheless, many of its operations can be seen in the context of the five stages of cultural integration, and we refer to them as appropriate below.

Stage Zero: Interdiction and Manipulation

When a lost colony world is contacted, an indefinite quarantine is imposed while it's observed and evaluated. This can include covert cultural manipulations to modify problematic (usually xenophobic) memes and develop the culture to a point where it may be successfully contacted. Usually undertaken by SCI Force's Evaluation Bureau, aka "Bugs and Slugs", in their scary, clinical way. Rarely, CORESEC will interdict a core world where virulent culture conflict has broken out.

Stage One: Contact

Full and open contact with the culture begins. Embassies are established, diplomacy begins, and campaigns are undertaken to win hearts and minds by the SCI Force Contact Bureau. Embargoes and quarantines may still be in place, and operations to manipulate **toxic memes** which might otherwise pose problems for the Commonality. Toxic memes include competing ideologies, violent or xenophobic attitudes, or concepts the Commonality believes will be traumatic to its population.

Stage Two: Normalisation

Once contact has gone far enough, SCI Force introduces the core Commonality culture, an often troublesome process as the native culture's memes are replaced. Handled by the Acculturation Bureau, normalisation aims to modify the target culture's memes so that all of them are at least either similar or related to the Commonality's memes, at which point it becomes a culture world (see **Stage Three: Acculturation** below), or a Commonality subculture (page 228) or Commonality world (see **Stage Four: Integrity** below). If a Core World culture has been sufficiently damaged by culture conflict, to the extent that its memes have diverged drastically, then CORESEC may embark upon operations similar to Stage Two Normalisations to redefine the world's culture.

Stage Three: Acculturation

The Acculturation Bureau sometimes designates a planet for development as a **culture world**, where the native culture is preserved and enhanced before incorporation into the Commonality mainstream. Such worlds often retain strong features of their origin cultures in the First Age of Space; Shinean worlds, due to their innate conservatism, make excellent culture worlds. Others, often called **neo-cultures**, may

be acculturated with only peripherally-related extinct Old Earth cultures, where SCI Force deems it a useful combination. CORESEC may occasionally redesignate a core world as a culture world if culture conflict has forced it back into Stage Two: Normalisation.

Stage Four: Cultural Integrity

Once a culture's memes are at least either similar or related to the Commonality's memes, it's incorporated into the Commonality mainstream, where it's guided towards ever-closer integration and carefully monitored for deviation from Commonality norms. This is particularly important on the Fringe, where Commonality worlds are a "shield" against virulent cultural influences from beyond the Frontier. Handled by the scary Monitor Bureau, aka "Hush Ops" or the "Behaviour Police", Stage Four worlds are either Commonality subcultures (page 228) or Commonality worlds (part of the full Commonality culture). Maintaining Stage Four: Cultural Integrity across the many cultures of the Core Worlds is one of the principal tasks of CORESEC.

EXAMPLE CULTURES

This section contains characteristics, memes, and descriptions for major cultures of the Expansionary Era. Some are already engaged in culture conflicts.

The Commonality Culture

The Commonality culture is the dominant culture in ***Mindjammer***. It's filled with self-belief, and is outgoing, expansionary, and idealistic, secure in the knowledge that it has a viable and working interstellar government which it wants to bring to the whole galaxy. It wants to assimilate and integrate every culture it contacts—and becomes confused and upset when those cultures don't reciprocate or can't understand the benefits it brings.

Tech Index: T9.
Scale: 9 (Galactic).
Reach: 9 (Galactic).
Memes: *A Light For the Many Worlds of Space; Live and Let Live; Humanity Is Transcending.*
Capabilities: Armaments, Transport.

The Core Worlds Culture

The Core Worlds culture is the ancient and conservative culture of the Old Commonality. It extends roughly 500 LY from Old Earth, but becomes weaker as it goes, until it merges with the Commonality culture proper. It's characterised by an extreme self-centredness and a belief that nothing needs to change, coupled with a static view of technology, whether it's the hyperadvanced tech of Manhome and the Old Commonality, or the very variable tech of the Penumbral Worlds and the Satellite Domains.

Tech Index: T10.
Scale: 8 (Interstellar).
Reach: 8 (Interstellar).
Memes: *The Ancient Ways Are the True Ways; The Core Worlds Are the Commonality; Status and Reputation Above All.*
Capabilities: Comms, Transport.

Culture Worlds and Neo-Cultures

Culture worlds are significant for possessing strong and vibrant cultures capable of withstanding cultural conflict. Some have unique cultures found nowhere else in the Commonality; others, often called **neo-cultures**, derive from ancient Old Earth cultures, in particular the so-called Autumn Cultures which preceded the Commonality and which formed the core of the Great Diaspora.

NEO-SHINEAN SUBCULTURE

The Neo-Shinean subculture is widespread throughout Commonality Space, and both culture worlds and neo-culture candidates are constantly being rediscovered. They match the most ardent corporacy worlds in toughness and dedication.

Tech Index: Varies, often T9.
Scale: 8 (Interstellar).
Reach: 9 (Galactic).
Memes: *True To Our Roots; Inscrutable Conformity; Self-Denial Leads to Transcendence.*

Xenomorph Subcultures

The xenomorph subcultures are everywhere in Commonality Space, sometimes focussing on one xenomorph type, other times common to all xenomorphs in an area. Some Commonality worlds have predominantly xenomorph populations, where most or all members have the **xenomorph** genotype (page 29).

THE SENTIENT ALLIANCE

This is a "liberated xenomorph" culture, no longer a subculture but still very much under the Commonality's wing. It's one of the larger Successor States, a bickering group of small interstellar cultures sponsored by either the Venu or the Commonality. It's the only interstellar xenomorph culture in Human Space (although there are xenomorph cultures on several individual worlds). You can find out more about the Sentient Alliance on page 334.

Tech Index: T8.
Scale: 7 (Interplanetary).
Reach: 8 (Interstellar).
Memes: *Newly Assertive Xenomorphs; What Is Human Anyway? Chip on the Shoulder.*
Capabilities: Transport.

Hominid Cultures

Hominid cultures form a large proportion of rediscovered worlds, usually those whose conditions or history have caused the original colonists to diverge significantly from the base human stock. There are a vast number of hominid types out there.

CHEMBU CULTURE

All hominid cultures are strange, but the Chembu culture is stranger than most. It's the culture of the Chembu Autonomous Region, and has representatives throughout Commonality Space working for the Chembu Genurgy corporacy.

Tech Index: T9.

Scale: 8 (Interstellar).

Reach: 9 (Galactic).

Memes: *Feel the Joy of the Planetary Intelligence!; In the Commonality Not of the Commonality; The Body Can Be Perfected.*

Capabilities: Biotechnology.

Rediscovered World Cultures

Rediscovered worlds are usually those the Commonality is trying to assimilate. There are thousands on the Fringe, so many that thinly-spread Space Force and Communications Instrumentality personnel are promoted way above their capabilities just to fill diplomatic and administrative positions. They're complemented by synthetics and the Mindscape where possible, but all the same there's the feeling that the Commonality is only just coping with the huge job on its hands. Rediscovered world cultures are often in the throes of deep culture conflict, and the situation is frequently difficult, if not desperate.

THE ROWENA CULTURE

Rowena is a culture in Stage Two Normalisation; it's described on page 22.

Tech Index: T8.

Scale: 7 (Interplanetary).

Reach: 7 (Interplanetary).

Memes: *Prove Ourselves to the Galaxy; All Sentients Are Equal; Loyalty to the Alliance Gives Us Strength.*

Capabilities: Transport.

Lost Colony Cultures

Beyond the frontier lie the countless lost colonies of Human Space (page 290). Most lie beyond the Commonality's reach, and though the Frontier is pushed back every year it will be centuries before they are brought into the Commonality—if ever. It's hard to generalise about lost colony cultures, as they're all very different. Most are planet-sized or even smaller, a few comprising a handful of worlds at most.

VAROS CULTURE

The Varos culture is a primitive world only just discovered by the Commonality, for all intents and purposes still a lost colony. It's discussed on page 21.

Tech Index: T2.

Scale: 6 (Planetary).

Reach: 6 (Planetary).

Memes: *Hierarchy Is the Natural Order of the World; Life Is Struggle; Never Show Weakness.*

Capabilities: Armaments, Biotechnology.

VENU CULTURE

The Venu culture is ***Mindjammer***'s "enemy" culture. Most Venu are human, although an increasing number are mutants. There are no xenomorphs or synthetics; both are forbidden in Venu society. The Venu have conquered some hominid worlds, but aren't believed to be in contact with any alien species. Although their approach is to annihilate enemy cultures, they are nevertheless in the throes of cultural conflict themselves, after cultural contamination by the Commonality and its advanced technology.

Tech Index: T7.

Scale: 8 (Interstellar).

Reach: 8 (Interstellar).

Memes: *You Shall Have No God Except Venu; Mutation Is Abomination; Hail the Radiant Darkness!*

Capabilities: Armaments, Power, +2 Transport.

Successor State Cultures

The Successor States are turbulent polities which have emerged from the aftermath of the Venu War. They're essentially client states of either the Commonality or the Venu Empire, but they have widely divergent origins. Some were lost colonies before the War; others were rediscovered worlds; and others still were either fully fledged members of the Venu Empire or the Commonality. They're characterised by a political and often military and technological dependence on either the Venu or the Commonality, but are currently outside the colonisation or cultural integration efforts of either polity.

THE ZARUS DOMINATE

The Zarus Dominate is a Venu client state culture located primarily in the Outremer subsector. It's described on page 25, and also on page 335.

Tech Index: T7 (Second Age of Space).

Scale: 7 (Interplanetary).

Reach: 7 (Interplanetary).

Memes: *Humankind Loves Domination; The Venu Show the Way; Security Through Submission.*

Capabilities: Transport+2.

CHAPTER TWELVE
STELLAR BODIES AND STAR SYSTEMS

"The sun hung in the dark sky like a huge ember, so big that when she held out her hand she couldn't cover it. It burned so cool it left no imprint on her retina, like a vast glowing gem in the sky. Peaks and prominences flared bright into lambent amber; its surface changed constantly, as hypnotic as a burning coal.

There are two methods of creating star systems and worlds: **star first** and **world first**. The first starts with a stellar body, and details any planetary system. The second assumes you have a world type in mind, and lets you describe it in the detail you need (including star system and planets if you want). The **star first** method gives you a star system which may or may not be habitable. The **world first** method gives you a star system which meets your requirements: maybe a Commonality world, lost colony, or Commonality outpost. Star first is useful for newly discovered systems; world first is useful for worlds within the Commonality, or star systems which are known to be inhabited or habitable. This chapter describes the **star first** method; the **world first** method is detailed in **Chapter 13: World Creation.**

In both cases, it's up to you how much detail you generate. Often it's enough just to know what the stellar body or bodies in a system is; you may also want to know the planetary type for each planetary body in the system, if any. Other times, you may want a lot more detail for just one or two planetary bodies in the system; and other times still you may want exhaustive detail about the system, including the nature of any civilisation there. The systems given below and in **Chapter 13: World Creation** can generate a **lot** of detail; make sure you only generate as much as you need or want.

PHASE 1: THE ESSENTIALS

If you have a clear idea of what kind of star system you want, we recommend selecting manually; if you want a random result, roll 2D instead. In either case, start by selecting or rolling the Stellar Body Category on Table 12-1: Stellar Body Category.

You may have more than one stellar body in a system; if you got the "Star" result on Table 12-1, use Table 12-2: Multiple Stellar Body Systems to determine whether there are one, two, or three or more stellar bodies. Usually multiple stellar body systems contain multiple stars. However, you can also roll on Table 12-1: Stellar Body Category for each additional stellar body, for unusual systems like a main sequence star with a white dwarf companion. For each stellar body, select an entry or roll 2D on Table 12-3: Stellar Body Type to determine exactly what sort of stellar body it is.

Spectral Class Determination

If the stellar body is a **star**, you may want to include its **Spectral Classification**, indicating its colour, size, and temperature, natural resources and planetary bodies. Pick an entry or roll 2D twice on Table 12-4: Spectral Classification. If you already havy a garden world and are generating its primary, roll 1D+2 twice instead. Most stars are Spectral Classification M, cool red stars of great age, although the majority of Commonality worlds orbit F-, G-, and K-class stars more like Old Earth's sun.

PHASE 2: STANDARD PROFILE

In this phase, you roll or choose the details of the rest of the star system. Does it have planets, and if so, what sort of planets does it possess?

Table 12-1: Stellar Body Category

Roll 2D	Stellar Body Category
2-3	Pre-stellar Object
4-10	Star
11	Post-stellar Object
12	Exotic Stellar Object

Table 12-2: Multiple Stellar Body Systems

Roll 2D	Number of Stellar Bodies
2-9	Single
10-11	Binary
12	Multiple*

**Multiple stellar body systems contain three stellar bodies, or rarely four.*

1. Stellar Body Type

You already generated the Stellar Body Type in phase 1. Now, look it up in the Stellar Body Types section below (page 238), for a description and the specific ranges which each of the stellar body's characteristics must fall within.

2. Stellar Body Characteristics

A stellar body's characteristics include its age, habitable zone distance and orbital period, star system type, maximum number of planetary bodies, and resources. Roll 2D or choose from the characteristic sections below, restricting your selections to the ranges specified for the Stellar Body Type (page 238).

3. Planetary System

Once you've generated the stellar body's characteristics, you already know the maximum number of planetary bodies in its

Table 12-3: Stellar Body Type

Roll 2D	Pre-stellar	Star	Post-stellar	Exotic
2	Interstellar Cloud	Hot Subdwarf	Stellar Core	Dark Matter Star
3	H II Region	Pre-Main Sequence	Collapsing Star	Asymptotic Giant
4	Molecular Cloud	Cool Subdwarf	Planetary Nebula	Asymptotic Giant
5	Molecular Cloud	Substellar Object	Planetary Nebula	Eruptive Variable
6	Protostar	Main Sequence Star	White Dwarf	Pulsating Variable
7	Protostar	Main Sequence Star	White Dwarf	Pulsating Variable
8	Protostar	Main Sequence Star	White Dwarf	Pulsating Variable
9	Eruptive Variable	Subgiant	Neutron Star	Eruptive Variable
10	Eruptive Variable	Giant	Electro-weak Star	Eruptive Variable
11-12	Eruptive Variable	Supergiant	Stellar Black Hole	Black Star

Table 12-4: Spectral Classification											
Roll 2D	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
2	O	B	A	F	F	G	G	K	K	M	M
3	B	A	F	F	G	G	K	K	M	M	M
4	A	F	F	G	G	K	K	M	M	M	M
5	F	F	G	G	K	K	M	M	M	M	M
6	F	G	G	K	K	M	M	M	M	M	M
7	G	G	K	K	M	M	M	M	M	M	M
8	G	K	K	M	M	M	M	M	M	M	M
9	K	K	M	M	M	M	M	M	M	M	C
10	K	M	M	M	M	M	M	M	M	S	L
11	M	M	M	M	M	M	M	M	S	L	T
12	M	M	M	M	M	M	M	C	L	T	Y

system. For each of those, roll on Table 13-4: Unknown World Planetary Type (page 252) and / or Table 13-7: Planetary Orbit (page 255) in **Chapter 13: World Creation** to see what it is.

PHASE 3: FULL PROFILE

Use a full profile to generate exhaustive detail on a star system. This creates characteristics for all planetary bodies, a **system schematic**, and events and encounter tables.

Exploration Missions: Checking the Mindscape

If you have access to a starship Mindscape instance or better (page 136), you can use the Mindscape to query any event horizon probe reports on a system using a Science (astronomy) check: many star systems have had at least cursory visits. If the roll offers no information beyond the type and number of stellar bodies in the star system and the number and size of any bodies of size Larger, Very Large, or Giant (page 256), that may mean the system has never been visited. If you're beyond the Frontier, the referee is free to state that this star has never been visited and you're on your own. However, even on a failed roll, you'll know the type and number of stellar bodies in the star system as well as the number and size of any larger bodies, since telescopes across the Commonality determined this information millennia ago.

System Schematics

The **system schematic sheet** (page 372) can be useful for visualising a star system's layout, and also for noting down details of a stellar body system as you create it. See the example for Manhome on page 295. Beginning with the system primary, proceed outwards, marking each planetary body and its orbit, and any moons. A system schematic can be part of a preliminary system scan (page 239), sketching out the occupied orbits, then filling in more detail later using a detailed system analysis (page 263). To create a system schematic **collaboratively**, take turns as referee and players to define a planetary body. Continue until all orbits have been described. See also "Collaborative World Profiles" (page 252).

STELLAR BODY TYPES AND CHARACTERISTICS

Stellar Body Characteristics

Stellar body characteristics describe a stellar body and its system features. Roll 2D (or roll the dice indicated), or pick appropriate entries in the sections below. Make sure each characteristic falls within the ranges indicated for the Stellar Body Type (page 238).

1. STELLAR BODY AGE

Table 12-5: Stellar Body Age determines how evolved the planetary system (if any) is, and provides a DM to be used on Table 12-6: Planetary System Type (page 238). It affects whether planets have had time to form, and whether life has had chance to evolve. Roll 2D or select an entry.

2. H-ZONE ORBITAL DISTANCE

The distance from the system primary at which a planet may

Dice Modifiers from Stellar Body, Planetary, and Civilisation Characteristics

*The characteristics described below and in **Chapter 13: World Creation** represent aspects of stellar bodies, planetary bodies, and civilisations which are used when describing those entities. You can refer to these characteristics either by score ("Stellar Body Age 5"), or by label ("Stellar Body Age Maturing"), as appropriate. Sometimes it's useful to do both ("Stellar Body Age 5 (Maturing)").*

These characteristics are characteristics just like Strength, Dexterity, and Endurance, and that means they may be used to provide dice modifiers (DMs) in play.

*As with character characteristics, these DMs come in two forms. The first is the **characteristic DM** which is derived from the table on page 8 of the* **Traveller Core Rulebook***. You can use this DM whenever you feel that one or more stellar body, planetary or civilisation characteristics should have a moderate impact on dice rolls you're making.*

For example, if you're trying to overhear a conversation, the referee may decide that the local Atmospheric Pressure may provide a general DM. If the Atmospheric Pressure is 5 (Low), then that's a DM-1 on your roll.

*The second type of DM is an **Action DM**, where a characteristic provides a more significant DM to one or more specific tasks. Action DMs are not derived from the table on page 8 or the* **Traveller Core Rulebook***, but are instead provided in the tables for the characteristics in question below.*

For example, when trying to find a buyer or seller in speculative trade (page 206), a Trade Index score of 2 or below provides a Trade Index Action DM of -5 on the check, instead of the DM-2 which its characteristic DM would provide.

Throughout this book, when we refer to applying a stellar body, planetary or civilisation characteristic DM to a roll, we're referring to the characteristic DM by default, unless specifically noted otherwise. Action DMs will be highlighted in the task descriptions where appropriate or mentioned in the description of the particular characteristic. In all cases, it's always the referee's choice whether she thinks a characteristic or Action DM applies.

Table 12-5: Stellar Body Age

Roll 2D	Age	Planetary System Type DM
2	Extremely Young	-4
3	Very Young	-3
4	Young	-2
5	Maturing	-1
6-8	Mature	+0
9	Ageing	+1
10	Old	+2
11	Very Old	+3
12	Ancient	+4

have liquid water on its surface. Units are in astronomical units (AU), and are specific to the **Stellar Body Type.** This is multiplied by the **orbit multiple** from Table 13-7: Planetary Orbit (page 255) in **Chapter 13: World Creation** to ascertain the orbital distance of any planetary body.

3. H-ZONE ORBITAL PERIOD

The time in standard years for a planet in the habitable zone to make one orbit, specific to the **Stellar Body Type.** Multiply by the **year length modifier** from Table 13-7: Planetary Orbit (page 255) to ascertain a planet's year length.

4. PLANETARY SYSTEM TYPE

Roll 2D or select an entry on Table 12-6: Planetary System Type, applying the DM from Table 12-5: Stellar Body Age, to determine whether the stellar body has a planetary system. **Remnant planetary systems** occur when a planetary system has been damaged by a stellar event like expansion or collapse. Generally inner system planets are destroyed, and outer system planets wiped clean of any biosphere. Sufficiently old remnant systems may have evolved new biospheres.

Table 12-6: Planetary System Type

Roll 2D	Planetary System Type
2-4	Accretion disk (page 263)
5	No planetary system
6+	Planetary system (see below)
Special	Post-planetary system/Remnant

5. MAXIMUM NUMBER OF PLANETARY BODIES

Roll 2D-2 for the maximum number of planetary bodies, or pick an entry on Table 12-7: Maximum Number of Planetary Bodies, modified by the Planetary Bodies DM for the Stellar Body Type. For each planetary body, roll on Table 13-4: Unknown World Planetary Type (page 252) and / or Table 13-7: Planetary Orbit (page 255) in **Chapter 13: World Creation**.

6. RESOURCES

These are indicators of plentiful and scarce natural resources in the star system. These resources can be used in cargo trading (page 206) and resource extraction (page 155).

Table 12-7: Maximum Number of Planetary Bodies

Roll 2D-2 + DMs	Maximum Number of Planetary Bodies
0	No planetary bodies
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10[1]	10

[1]: For results higher than 10, the result equals the maximum number of planetary bodies.

Stellar Body Types

The following stellar body types can be found throughout Human Space. They aren't exhaustive; feel free to create your own.

ASYMPTOTIC GIANT

Exotic Stellar Object

A low- to medium-mass G- to M-class star (0.6 to 10 solar masses), becoming an S- or C-class star late in its life. Having been through its red giant phase once, it swells again to 1 AU radius, shedding its mass in "thermal pulses". Each takes a few hundred years to build, culminating in a massive "helium shell flash", increasing its luminosity thousands of times before fading over a few years.

Asymptotic giants are surrounded by shells of ejected stellar material up to 30 LY radius, iron and silicon dust and heavier elements like carbon or oxygen. They're a source of **astrophysical masers** (page 151), and often the site of Commonality research expeditions.

Age: Very Old or older.
Planetary System Type: None, or remnant.
Planetary Bodies: DM-4.
H-Zone Distance: As red giant, but blasted by flash.
H-Zone Period: As red giant.
Resources: *Plentiful*: carbon, iron, oxygen, silicon.

BLACK STAR

Exotic Stellar Object

Midway between a collapsing star and a singularity, a black star is a massively gravitational object similar to a black hole, but without an event horizon. Almost all light is dragged back into it, and what does escape is redshifted.

Age: Young or older; often Ancient.
Planetary System Type: Accretion disk.
Planetary Bodies: DM-4.
H-Zone Distance: n/a.
H-Zone Period: n/a.
Resources: As accretion disk.

COLLAPSING STAR

Post-stellar Object

A star collapsing under its own gravity at the end of its life, blowing off its outer envelope over tens of thousands of years to form a planetary nebula (page 242), ending in a white dwarf. Massive collapsing stars may become stellar black holes (page 242). They may be very hot, with varying luminosities and odd atmospheres of little hydrogen, but with helium, carbon, and oxygen. Some may have reignited helium fusion.

Age: Young or older; often Ancient.
Planetary System Type: None, or remnant.
Planetary Bodies: DM-4.
H-Zone Distance: Less than original star; unstable.
H-Zone Period: Less than original star; unstable.

Resources: *Plentiful*: carbon, helium, oxygen; *Scarce:* hydrogen.

COOL SUBDWARF

Star

One of the two subdwarf types making up **luminosity class VI stars**, cool subdwarfs have spectral classes G to M, and fuse hydrogen in their cores like main sequence stars. They're less luminous than main sequence stars, as they lack elements heavier than helium; they also emit more ultraviolet. They're more common in the halo of stars above and below the galactic plane.

Age: Any.

Star System Type: G- to M-class.

Planetary Bodies: DM-2; only gas giants.

H-Zone Distance: Closer than equivalent main sequence.

H-Zone Period: Lower than equivalent main sequence.

Resources: *Plentiful*: helium, hydrogen; *Scarce:* everything else.

DARK MATTER STAR

Exotic Stellar Object

Also known as a **dark star,** a dark matter star is an extremely rare survivor from the early universe, a huge stellar body up to 2000 AU in diameter comprising an enormous cloud of hydrogen and helium at a temperature too low for emitted radiation to be visible to the naked eye. Dark stars exist in cold clouds of molecular hydrogen gas, and emit gamma rays, neutrinos, and anti-matter.

Age: Ancient.

Planetary System Type: No planetary system.

Planetary Bodies: n/a.

H-Zone Distance: n/a.

H-Zone Period: n/a.

Resources: *Plentiful*: anti-matter, helium, hydrogen.

ELECTROWEAK STAR

Post-stellar Object

A dense supernova remnant, when the star's electroweak radiation pressure prevents further gravitational collapse to leave a core of two Old Earth masses ten centimetres across. They may last more than 10 million years. They are **d-process** candidates (page 246), and a source of zanthrium monopoles, flooding their surroundings with massive amounts of neutrino energy. They're dim, hard to detect, and unstable; they may collapse into black holes (page 242) at any moment.

Age: Mature or older.

Planetary System Type: Accretion disk, planetary nebula, remnant system.

Planetary Bodies: DM-4.

H-Zone Distance: None.

H-Zone Period: None.

Resources: *Plentiful*: zanthrium monopoles.

Exploration Missions: Preliminary System Scan

This scan reveals the most basic information about a star system. It's normally unnecessary, as the data is almost always contained in astronomical observations of the star made over many millennia, and every star system which has been visited by an event horizon probe has been scanned in at least this much detail. In these cases, a starship and its crew need only look up this information in their local Mindscape. A preliminary system scan is usually only necessary when a starship misjumps (page 146) and must determine its nearest star. However, most starships have a basic sentience automatically perform a preliminary system scan as soon as the starship arrives in a new star system, and notify the starship and its crew if the data obtained differs from that in the Mindscape, usually indicating major star system events, such as catastrophic orbital displacements or impact events. A preliminary system scan also reveals the nearest stellar body system for vessels which have suffered misjumps.

- Perform a Preliminary System Scan: *Average (8+) Interface (sensors) check (1D minutes, INT or EDU).*

Results of marginal failure or better *reveal the identity and characteristics of the stellar body, and the presence, Planetary Orbit, Planetary Size, Surface Temperature, and Year Length characteristics of any companion stars or planets of Planetary Size 10 (Large) or larger.*

Results of marginal success or better *also reveal the presence, Planetary Orbit, Planetary Size, Surface Temperature, and Year Length characteristics of every planet of Planetary Size 5 (Small Standard) or larger.*

Results of average success or better *also reveal the presence, Planetary Orbit, Planetary Size, Surface Temperature, and Year Length characteristics of every planet of Planetary Size 3 (Planetoid) or larger, and also reveals the presence of any planetoid belts, and identifies every moon of Planetary Size 3 (Planetoid) or larger and any resources available in the system.*

Average or exceptional failure *typically indicates that the scan missed or misidentified 1 planet of Planetary Size 10 (Large) or larger. Roll 1D: 1 = 1D3 planets missed; 2-3 = 1 planet missed; 4-6 = 1 planet has 1D3 characteristics incorrect from Planetary Orbit, Planetary Size, Surface Temperature, and Year Length. Make a random roll on the appropriate planetary characteristic table or tables to determine the value that the sensors gave for that characteristic.*

ERUPTIVE VARIABLE STAR

Star or Pre-stellar Object

Eruptive variable stars are otherwise normal stars (select a spectral class) which periodically increase or decrease in brightness, often by thousands of times, accompanied by stellar flares. There are many different types, some of which are extremely hazardous; some erupt at regular intervals of a few hours; others may go centuries without activity.

Age: Any.
Planetary System Type: Any.
Planetary Bodies: DM-2; DM-4 Biosphere / Habitability.
H-Zone Distance: As normal star, but blasted by flare.
H-Zone Period: As normal star.
Resources: As spectral class.

GIANT STAR

Star

Also called **luminosity class III stars**, giant stars are a stage in a star's life which main sequence stars of sufficient mass eventually go through. They're larger (up to several hundred solar diameters) and more luminous (from 10 to several thousand solar luminosities) than main sequence stars (page 243) of the same spectral class. If they have a planetary system, any inner system worlds will have been destroyed.

There are several types of giant star:

Red Giants

With spectral classes K, M, S, and C, the cooler red giants are from 20-100 solar diameters, with moderate mass (0.3 - 8.0), decent luminosity (100 to several hundred), and relatively long stable lives. They're the most common giant stars.

Age: Old or older.
Planetary System Type: Any.
Planetary Bodies: DM+0; DM-2 Biosphere / Habitability.
H-Zone Distance: 9.5 - 34 AU.
H-Zone Period: 50 - 70.
Resources: As spectral class.

Yellow Giants

With spectral classes G, F, and some A, yellow giants are less common than red, and are variable and often unstable stars, some with periods less than a day.

Age: Ageing or older.
Planetary System Type: Any.
Planetary Bodies: DM+1; DM-1 Biosphere / Habitability.
H-Zone Distance: As red giant, but variable.
H-Zone Period: As red giant, but variable.
Resources: As spectral class.

Blue Giants

With spectral classes O, B, and some A, these are very hot bright giant stars (5 to 10 solar diameters, 10,000K, and from 10 to 100,000 solar luminosities), varying a great deal in mass (from 2 to 50+ solar masses).

Age: Very Young to Young.
Planetary System Type: As spectral class.
Planetary Bodies: DM-2; DM-4 Biosphere, DM-2 Habitability.
H-Zone Distance: 3 - 433 AU.
H-Zone Period: 3.5 - 1300.
Resources: As spectral class.

Giant stars include **bright giants,** also known as **luminosity class II stars,** which straddle the boundary between giant and supergiant stars. They can be of any spectral class from O to M. Stars larger and more luminous than giant stars are called **supergiants** (page 243).

H II REGION

Pre-stellar Object

An interstellar cloud of partially ionised gas up to several hundred light years in diameter in which star formation has recently occurred, often the location of O- and B- class stars (page 244). They have a characteristic red colour, and are mostly composed of hydrogen, about 10% helium, and trace heavier elements. The Orion Nebula, home of the Venu, is the most famous. With high temperatures, intense magnetic fields, and energetic electric fields, they pose navigational hazards. Stars within H II Regions are surrounded by spheres of ionised gas.

Age: Any.
Star System Type: Protostars or O- and B-class stars.
Planetary Bodies: DM-4; rogue planets possible.
H-Zone Distance: n/a.
H-Zone Period: n/a.
Resources: *Plentiful*: helium, hydrogen.

HOT SUBDWARF

Star

One of the two subdwarf types making up **luminosity class VI stars**, hot subdwarfs have spectral classes O and B, and are a late stage in certain red giant lifespans which have lost their outer hydrogen layers. Often occurring in binary systems, B-class subdwarfs are more luminous than white dwarfs, and comprise a significant proportion of older star populations. Some are variable stars. They are roughly 0.5 solar masses, with a luminosity of 10 to 100.

Age: Old or older.
Planetary System Type: None, or remnant; may have white dwarf companion.
Planetary Bodies: DM-4.
H-Zone Distance: 3 - 13 AU.
H-Zone Period: 7 - 66.
Resources: *Plentiful:* helium; *Scarce:* hydrogen.

MAIN SEQUENCE STAR

Star

A star that's fusing hydrogen atoms in its core to form helium; 90% of all stars are main sequence stars, varying from about 0.1 solar masses to up to 200. Also known as **luminosity class V stars**, they range in size and temperature from bright and hot blue-white O- and B-class stars, through warm yellow G-class stars like Old Earth's sun, to cool reddish M-class stars, the most common. Spectral classification determines the star's age, the likelihood of it having planets, and so on. Planetary systems around main sequence stars are the most favourable for life as we know it. Other stages in a star's life include white dwarf, giant, subgiant, and supergiant.

When you create a main sequence star, determine its Spectral Class (page 236); stellar object characteristics can be found in "Star Spectral Classes" (page 243).

MOLECULAR CLOUD

Pre-stellar Object

Molecular clouds, also known as **stellar nurseries**, are dense regions of the interstellar medium, filled with hydrogen, carbon, and hydrocarbons, including amino acids and the building blocks of life. Slower-than-light expeditions to molecular clouds have successfully filtered and processed this material for make-point conversion.

Exotic life forms have been reported in molecular clouds, although the Pulse Dragon Phenomenon has meant they have been difficult to study. They're also navigational nightmares—so thick sensors can't penetrate, with cloud matter playing havoc with hull materials and ruining sensors, comms, and shielding.

Bok Globules are dark dense clouds of molecular hydrogen, carbon oxides, helium, and silicate dust and gas found in H II Regions (page 240), in which stellar formation sometimes takes place. Roughly a light year across, they mass up to 50 solar masses, and are among the coldest objects in the universe.

Giant Molecular Clouds are vast molecular clouds of relatively high density, with over a million solar masses stretched up to 600 light years in diameter. They contain structures of filaments, sheets, lumps, and cores, some of which are so dense they block light—the so-called "dark nebulas". They're the location of magnetised turbulence and star formation, and astrophysical masers (see page 151).

Age: Any.

Planetary System Type: Protostars, accretion disks.

Planetary Bodies: None usually; rogue planets and protoplanets possible.

H-Zone Distance: n/a.

H-Zone Period: n/a.

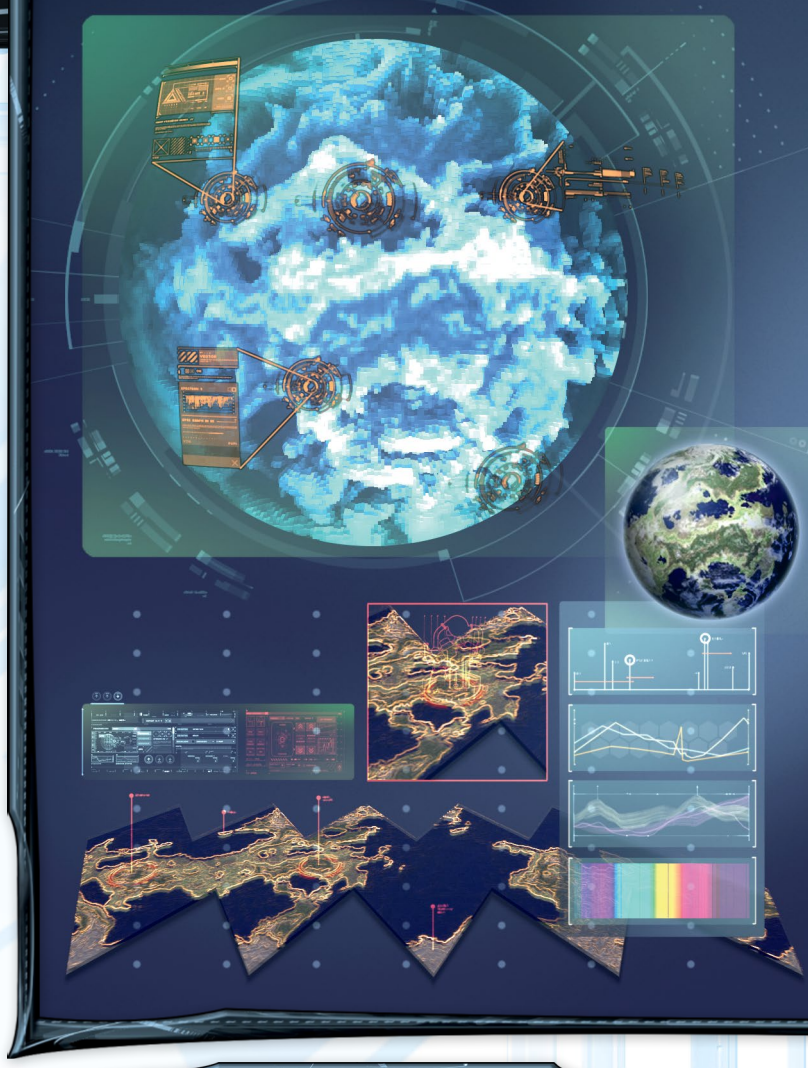
Resources: *Plentiful:* carbon oxides, helium, hydrogen, metals, silicate dust.

NEUTRON STAR

Post-stellar Object

An incredibly dense supernova remnant from 1 to 3 solar masses in a diameter of 20km or so, neutron stars are incredibly hot and composed almost entirely of neutrons. Some, known as **pulsars**, rotate extremely rapidly (many times a second), and emit beams of searing radiation.

Neutron stars have gravities of **billions** of Old Earth Gs, bending light in gravitational lenses so that their backs are visible from their fronts. Objects caught smash into the star's



The Interstellar Medium

Space is not empty—even between the stars—but contains clouds of dispersed gas, dust and cosmic radiation, for all intents and purposes a vacuum from a human perspective. It clumps together in denser patches forming molecular clouds and H II regions, eventually giving birth to stars.

The interstellar medium is notable for its lack of significant gravity wells, and planeships emerging from 2-space are immediately destroyed by the Pulse Dragon Phenomenon (page 145). There are rogue planets and other bodies in the interstellar medium, but the Commonality knows little about them. The Lowhigh (page 320) are the main species to travel there regularly.

surface at significant fractions of light speed, to be destroyed at the atomic level.

Despite the extraordinarily hostile conditions, it's been theorised that neutron stars may host exotic biospheres. None have been found yet, but there are several neutron stars in Commonality Space, all with Commonality research stations.

Age: Any.

Planetary System Type: Accretion disk, planetary system, remnant.

Planetary Bodies: DM-2.

H-Zone Distance: n/a.

H-Zone Period: n/a.

Resources: *Plentiful:* degenerate matter, neutrons.

PLANETARY NEBULA

Post-stellar Object

An expanding glowing shell of hot ionised gas given off by collapsing stars, lasting a few tens of thousands of years. Roughly one light year across, temperatures close to the exposed core can reach 1 million degrees. The exposed core emits strong ultraviolet radiation. Ejected layers are rich in heavy elements and the products of nucleosynthesis (calcium, carbon, nitrogen, oxygen, etc).

Age: Young or older.

Planetary System Type: None, or remnant.

Planetary Bodies: DM-4.

H-Zone Distance: n/a.

H-Zone Period: n/a.

Resources: *Plentiful:* calcium, carbon, heavy elements, nitrogen, oxygen.

PRE-MAIN SEQUENCE STAR

Star

Pre-main sequence stars are larger and less dense than main sequence stars, midway between a protostar and a main sequence star. They include T-Tauri and FU Orionis stars, and have dense accretion disks. They're heated by gravitational contraction rather than hydrogen burning.

Age: Extremely Young to Very Young.

Planetary System Type: Accretion disk.

Planetary Bodies: None.

H-Zone Distance: Greater than main sequence star.

H-Zone Period: Greater than main sequence star.

Resources: *Plentiful:* carbon, hydrogen, silicates.

PROTOSTAR

Pre-stellar Object

A massive pre-stellar object formed by contraction of gases in a giant molecular cloud (page 241), and a short-lasting early stage in stellar formation, ending in a pre-main sequence star (above). Beginning from about 1% of its final mass, it heats up as it increases in size, bathed in microwaves and infrared, until fusion begins and the stellar wind begins to blow. Some protostars are also eruptive variables (page 240).

Age: Extremely Young.

Planetary System Type: Early accretion disk.

Planetary Bodies: None; possibly proto-gas giant or proto-planet.

H-Zone Distance: n/a.

H-Zone Period: n/a.

Resources: As molecular cloud.

PULSATING VARIABLE STAR

Exotic Stellar Object

Pulsating variable stars swell and shrink in a regular period ranging from minutes, hours, or days, to months or even years; there are many different types, with sizes and spectral classes as normal stars. Some brighten by fractional amounts; others by thousands of times. They can be very hazardous, although known pulsating variables are usually easy to avoid.

Age: Any.

Planetary System Type: Any.

Planetary Bodies: DM-4.

H-Zone Distance: Any.

H-Zone Period: Any.

Resources: Any.

STELLAR BLACK HOLE

Post-stellar Object

Formed by the collapse of very massive stars at the end of their lives, black holes continue to grow by absorbing mass. Although invisible, they're detected by their accretion disks and gravitational lensing. Black holes have enormous (theoretically infinite) gravities; objects may be caught in their fields and be unable to escape. Objects approaching a black hole experience time dilation, appearing to gradually "freeze" to external viewers; it's not known what happens to them subjectively, although some black holes may be **dimensional anomalies**.

Age: n/a.

Planetary System Type: Accretion disk; orbiting stars (binary or trinary).

Planetary Bodies: None.

Scenario Hook: The Converters

A new life form has been discovered in the Cepheus Molecular Cloud (page 241)—but the jury is out as to whether it's a virus, carnivore, or plague. It's adept at taking material objects and stripping them apart and putting them back together into versions of itself—a lethal and highly effective reproductive mechanism!

H-Zone Distance: n/a.
H-Zone Period: n/a.
Resources: As accretion disk.

STELLAR CORE

Post-stellar Object

An object of substellar mass which has lost all its gas to become too small to continue fusion, and does not have the composition of a brown or white dwarf or super-planet.

Age: Young or older; usually Old or older.
Planetary System Type: None, accretion disk, or remnant
Planetary Bodies: DM-2.
H-Zone Distance: n/a.
H-Zone Period: n/a.
Resources: As accretion disk.

SUBGIANT

Star

Also known as a **luminosity class IV star**, subgiants are a stage in a star's life which main sequence stars evolve into. Midway between main sequence stars and giant stars, hydrogen fusion in their cores is ceasing, causing their cores to contract and their outer shells to expand, eventually to become a giant star, although their spectral class hasn't yet shifted. Subgiant stars are rich in resources, especially metals, and their planetary systems are often favourable to terrestrial-type life.

Age: 1 step older than main sequence.
Planetary System Type: As main sequence.
Planetary Bodies: As main sequence.
H-Zone Distance: Greater than main sequence.
H-Zone Period: Greater than main sequence.
Resources: As main sequence.

SUBSTELLAR OBJECT

Star

Less than 0.08 solar masses but only slightly larger than a gas giant planet, substellar objects cannot fuse hydrogen to helium in their cores, so never twinkle, but just smoulder in deep magenta colours. Also known as Brown or Methane Dwarfs, they're stellar class L, T, and Y: see page 246.

SUPERGIANT

Star

Supergiants are rare, short-lived, and very bright **luminosity class I stars**, a stage in a star's lifespan after the main sequence and giant star (page 240) stages. They can be any spectral class, and are among the most massive and luminous stars, with masses of at least 8-10 solar masses, luminosities from 10,000 to more than a million, and radii from 30-500 and even up to 1500 in the case of red supergiants like Antares. Blue O-class supergiants are very young stars, while red M-class supergiants are very old. They fuse heavier elements in their cores, and often undergo mass loss; some may even be variable stars. Supergiants eventually explode as supernovae. The largest supergiants are known as hypergiants, and are especially unstable.

Age: Older than equivalent giants.
Planetary System Type: Extreme outer zone possible.
Planetary Bodies: DM-4.
H-Zone Distance: See equivalent giant.
H-Zone Period: See equivalent giant.
Resources: As spectral class.

Population II Stars

These are very old stars composed almost entirely of hydrogen and helium, with low metallicity (few other heavier elements). They're the oldest stars in the universe; their planetary systems, if any, contain far fewer terrestrial planets. While they're poor candidates for life as we know it and resource exploitation, they've existed for so long that they may host very exotic life forms. The nearest Population II star to Old Earth is Barnard. Population II stars are more common in sectors farther above and below the galactic plane.

WHITE DWARF

Post-stellar Object

Also known as a **luminosity class VII star,** white dwarfs are extremely dense stellar remnants comprising mostly electron-degenerate matter, the final stage in the life of most stars, with 1.4 solar masses compressed into a body the size of Old Earth. They cause gravitational redshift, and have strong magnetic fields. Gravity on the surface of a white dwarf is around 300,000G; matter there assumes exotic forms.

If more matter is added to a white dwarf, it may explode as a supernova. It's theoretically possible to trigger this artificially, with a sufficiently high Tech Index…

White dwarfs can continue to heat planetary systems for billions of years, and new worlds may develop from remnants of older planets, or form from the gas and dust surrounding the star.

Age: Old or older.
Planetary System Type: Accretion disk; planetary system.
Planetary Bodies: DM+2.
H-Zone Distance: 0.01 AU (tidally-locked).
H-Zone Period: < 0.001.
Resources: *Plentiful:* helium, magnesium, neon, oxygen.

Star Spectral Classes

This section describes spectral classes in detail. They can be applied to stars of all types: giants, subgiants, dwarfs, and so on. By default, where a difference exists, the characteristics

refer to main sequence stars; this is particularly the case for the **Mass**, **Radius**, and **Luminosity** characteristics, given in **sols** or Old Earth units, which should be adjusted upwards or downwards for non-main sequence stars.

The characteristics also provide baselines for the sky colour (page 259) of planets orbiting the star, and for vegetation colour. Spectral classes are presented in descending order of temperature, beginning with O-class stars and ending with Y-class brown dwarfs.

O-CLASS STAR

Hot Blue Star

Very hot blue stars emitting mostly in the ultraviolet, O-class stars are relatively rare, burning up their hydrogen in only a few tens of millions of years. Among the most massive stars, they're surrounded by dust disks out to thousands of AU, inhibiting planet formation close to the star.

Age: Extremely Young.
Temperature: >= 33,000 K.
Mass: >= 16 sol.
Radius: >= 6.6 sol.
Luminosity: >= 30,000 sol.
Resources: *Plentiful:* carbon, helium, hydrogen, nitrogen, oxygen, silicon.
H-Zone Period: 750+.
H-Zone Distance: 200 AU+.
Planetary Bodies: DM-6; DM-4 Biosphere.
Vegetation Colour: Autumnal.
Sky Colour: Deep purple-blue.

B-CLASS STAR

Hot Blue-white Star

Deep blue-white stars, B-class stars burn fast and bright, with short lifespans of less than a billion years. They have dust disks hundreds of AU in radius, beyond which massive and hot terrestrial planets (page 268) may form—although there's very little time for biospheres to evolve.

Using Stars in Scenarios

Stars don't just have to be background scenery; they can be scenario plot drivers in their own right. They are valuable sources of resources like zanthrium monopoles, often subjects of Commonality research; or they can be hazards, threatening navigation or even planetary populations. PCs on exploration missions may be surprised by sudden changes in a star's behaviour, or may mistake its behaviour, even missing close or distant planets. Some stars may have photospheres hosting exotic life forms (page 300).

B-class stars are more metal-enriched than sunlike stars, and are excellent sources of heavier elements.

Age: Extremely Young.
Temperature: 10,000 - 33,000 K.
Mass: 2 - 16 sol.
Radius: 1.8 - 6.6 sol.
Luminosity: 25 to 30,000 sol.
Resources: *Plentiful:* helium, hydrogen, magnesium, metals, silicon.
H-Zone Period: 10 - 750.
H-Zone Distance: 6 - 200 AU.
Planetary Bodies: DM-4; DM-3 Biosphere.
Vegetation Colour: Autumnal.
Sky Colour: Purple-blue.

A-CLASS STAR

Hot White Star

White or bluish-white, A-class stars are less rare than O- and B-class stars. They're young stars, several hundred million years in age, often with accretion disks and proto-planets or planets. They may be too young for evolved biospheres, although some worlds make good terraforming candidates.

Age: Extremely Young to Very Young.
Temperature: 7,500 - 10,000 K.
Mass: 1.4 - 2 sol.
Radius: 1.4 - 1.8 sol.
Luminosity: 5 - 25 sol.
Resources: *Plentiful:* calcium, hydrogen, iron, magnesium, silicon.
H-Zone Period: 4.8 - 10.
H-Zone Distance: 3.2 - 6 AU.
Planetary Bodies: DM-2; DM-2 Biosphere.
Vegetation Colour: Bright autumnal to bluish-white.
Sky Colour: Deep blue.

F-CLASS STAR

Warm Yellow-white Star

White in colour, F-class stars have respectable lifespans and are good candidates for planets with evolved biospheres.

Age: Maturing or younger.
Temperature: 6,000 - 7,500 K.
Mass: 1 - 1.4 sol.
Radius: 1.2 - 1.4 sol.
Luminosity: 1.5 - 5 sol.
Resources: *Plentiful:* calcium, chromium, hydrogen, iron.
H-Zone Period: 1.3 - 4.8.
H-Zone Distance: 1.2 - 3.2 AU.
Planetary Bodies: DM+1; DM-1 Biosphere.
Vegetation Colour: Blue, light green, white.
Sky Colour: Deep blue.

Spectral Sub-classes

Each spectral class can be divided into 10 divisions, in order of temperature; F0 stars are the hottest F-class stars, and F9 the coldest; below F9 stars come G0 stars, and so on. By default, **Mindjammer** *doesn't make use of these sub-classes, although of course you can. In particular, you'll find them used in star catalogues.*

G-CLASS STAR

Warm Yellow Star

Yellowish-white in colour, G-type stars remain in the main sequence for some 10 billion years, making them excellent candidates for evolved biospheres. The most famous G-class star is Sol, Old Earth's sun.

Age: Ageing or younger.
Temperature: 5,200 - 6,000 K.
Mass: 0.8 - 1 sol.
Radius: 0.9 - 1.2 sol.
Luminosity: 0.6 - 1.5 sol.
Resources: *Plentiful:* calcium, other metals.
H-Zone Period: 0.5 - 1.3.
H-Zone Distance: 0.6 - 1.2 AU.
Planetary Bodies: DM+2; DM+0 Biosphere.
Vegetation Colour: Green, red, yellow.
Sky Colour: Blue.

K-CLASS STAR

Warm Orange Star

Orange stars slightly cooler than Old Earth's sun, they are more common than G-class stars. They have longer lifespans, and are very favourable environments for planets with evolved biospheres.

Age: Old or younger.
Temperature: 3,700 - 5,200 K.
Mass: 0.5 - 0.8 sol.
Radius: 0.7 to 1 sol.
Luminosity: 0.1 - 0.6 sol.
Resources: *Plentiful:* manganese, silicon, titanium oxide.
H-Zone Period: 0.16 - 0.5.
H-Zone Distance: 0.23 - 0.6 AU.
Planetary Bodies: DM+3; DM+1 Biosphere.
Vegetation Colour: Red, yellow, violet, green.
Sky Colour: Very pale blue.

M-CLASS STAR

Cool Red Star

The most common main sequence star, M-class stars are dim red, and also known as **red dwarfs**. They're extremely long-lived (longer than the current lifespan of the universe), with a high likelihood of evolved biospheres.

Age: Ancient or younger.
Temperature: 2,000 - 3,700 K.
Mass: <= 0.5 sol.
Radius: <= 0.7 sol.
Luminosity: <= 0.1 sol.
Resources: *Plentiful:* oxides.
H-Zone Period: 0.16 - 0.26.
H-Zone Distance: 0.19 - 0.23 AU (tidally-locked).
Planetary Bodies: DM+4; DM+2 Biosphere.
Vegetation Colour: Dark purplish to black, deep red.
Sky Colour: Yellowish-orange to white.

S-CLASS STAR

Cool Carbon-Rich Red Giant Star

Also known as **zirconium stars**, S-class stars are giant stars midway between M-class and C-class stars; many are pulsating variables (page 242) with long periods. They're otherwise similar to M-class stars.

Age: As M-class.
Temperature: 2000 - 3,500 K.
Mass: 0.8 to 8 sol.
Radius: As M-class.
Luminosity: As M-class.
Resources: *Plentiful:* carbon, lithium, technetium, zirconium monoxide.

H-Zone Period: As M-class.
H-Zone Distance: As M-class.
Planetary Bodies: DM-4.
Vegetation Colour: Deep red, purple-black.
Sky Colour: Sooty orange.

C-CLASS STAR

Giant Ruby-red Carbon Star

C-class stars are almost all red giants near the end of their lives, with high levels of carbon in their atmospheres; they otherwise equate to K-class stars. A rare few are main sequence stars. Many are pulsating variables (page 242).

Age: As G-class to M-class star.
Temperature: 1,900 - 5,000 K.
Mass: As G-class to M-class star.
Radius: As G-class to M-class star.
Luminosity: As G-class to M-class star.
Resources: *Plentiful:* carbon and carbon compounds; *Scarce:* hydrogen.
H-Zone Period: As G-class to M-class star.
H-Zone Distance: As G-class to M-class star.
Planetary Bodies: Carbon planets.
Vegetation Colour: Dark purplish to black.
Sky Colour: Sooty orange-red.

L-CLASS STAR

Cool Red-brown Star

Also known as **L-dwarfs**, these very faint dark red "brown dwarf" stars are at the very bottom limit for supporting hydrogen fusion; some do not. L-class giants and supergiants exist. Twice as numerous as stars, they're rich in metal hydrides, used in ZIP cells, and alkali metals, used in genurgic and mechanical enhancements. While L-class stars live long enough to evolve biospheres, habitable zone planets must be so close to the star that they are torn apart by tidal forces.

Age: Ancient or younger.
Temperature: 1,300 - 2000 K.
Mass: < 0.075 sol.
Radius: appx 0.1 sol.
Luminosity: <0.00001 sol.
Resources: *Plentiful:* metal hydrides and alkali metals.
H-Zone Period: n/a.
H-Zone Distance: Unstable (tidally-locked).
Planetary Bodies: DM+10 ("moons"); DM-2 Biosphere.
Vegetation Colour: Black.
Sky Colour: Reddish-orange.

T-CLASS STAR

Cool Brown Star

Magenta stars also known as **methane dwarfs**, T-class stars are insufficiently massive to prevent the emergence of the Pulse Dragon Phenomenon (page 145), and so are still relatively poorly known in the Commonality, visited only by slower-than-light event horizon probes and the occasional Lowhigh lightjammer (page 320).

Age: Ancient or younger.
Temperature: 700 - 1,300 K.
Mass: 0.02 to 0.05 sol.
Radius: appx 0.1 sol.
Luminosity: <0.00001 sol.
Resources: *Plentiful:* methane.
H-Zone Period: n/a.
H-Zone Distance: Unstable (tidally-locked).
Planetary Bodies: DM+12 ("moons"); DM-3 Biosphere.
Vegetation Colour: Black.
Sky Colour: Red.

Y-CLASS STAR

Cool Dark Brown Star

Dark purple in colour, Y-class brown dwarfs have no methane, and are likewise too low mass to prevent the Pulse Dragon Phenomenon. They are so cool they may even have water clouds in their atmospheres. They may be very depleted in metals.

Age: Ancient or younger.
Temperature: <= 700 K.
Mass: 0.005 to 0.02 sol.
Radius: appx 0.1 sol.
Luminosity: <0.00001 sol.
Resources: *Plentiful:* helium, hydrogen.
H-Zone Period: n/a.
H-Zone Distance: Unstable (tidally-locked).
Planetary Bodies: DM+14 ("moons"); DM-4 Biosphere.
Vegetation Colour: Black.
Sky Colour: Purplish-red.

Creating Starmaps

You can create your own starmaps showing the relative locations of star systems in a volume of space. In the Commonality, the lowest level of starmap is the **octant**, a cubic volume of space 100 light years (LY) on a side (page 291). We

Zanthrium Stars

*The "d-process" or **dimensional membrane aperture process** is a nucleosynthesis effect that occurs under certain quantum gravitational conditions in stars, producing zanthrium and zanthrium monopoles, crucial in the workings of ZIP cells and planing engines. It happens in certain asymptotic giants, collapsing stars (especially those forming electroweak or neutron stars), and stars with unusual gravitational perturbations.*

provide an example Commonality octant, together with its planets and star systems, in **Chapter 17: The Outremer Sub-sector** (page 334). This section explains how you can create your own.

To create an octant, begin with a ten-by-ten grid like the one given on page 337 or the octant sheet on page 373. Each square is 10 LY across. For each square, roll 1D. For a standard distribution, mark a system of interest in the square whenever you roll a "5-6". For a heavier distribution, mark a system of interest on any roll of 3+. There are **many** more star systems in the octant than this system shows; these are just those which are "of interest".

For each system of interest, roll 2D or pick an entry on Table 12-8: Star System Z-Coordinate to find the system's z-coordinate, i.e. how far "above" or "below" the plane of the octant grid the star is. The octant map represents a 3D cube of space, projected onto a 2D surface; the z-coordinate provides the third dimension. For each system of interest, roll 2D or choose an entry on Table 12-9: Systems of Interest to find out whether the system is inhabited or unknown.

Table 12-8: Star System Z-Coordinate

2D	Z-coordinate
2	-50 LY
3	-40 LY
4	-30 LY
5	-20 LY
6	-10 LY
7	+0 LY
8	+10 LY
9	+20 LY
10	+30 LY
11	+40 LY
12	+50 LY

Table 12-9: Systems of Interest

2D	Core Worlds	Commonality Space	Fringe	Outer Worlds
2	Other Stellar Body	Other Stellar Body	Unknown System	Unknown System
3	Inhabited System	Unknown System	Unknown System	Unknown System
4	Inhabited System	Inhabited System	Unknown System	Unknown System
5-9	Inhabited System	Inhabited System	Inhabited System	Unknown System
10-12	Inhabited System	Inhabited System	Inhabited System	Inhabited System

For an inhabited system, determine its details using Table 13-1: Inhabited World Planetary Type (page 250).

For an unknown system, use Table 13-4: Unknown World Planetary Type (page 252). For any other stellar body, use Table 12-3: Stellar Body Type (page 235).

Star System Environments

Star systems are rich environments for danger, exploration, and mystery. They can be divided into the following zones.

PLANETARY ORBIT

Orbiting a world is a delicate manoeuvre; you're visible from the ground, and subject to planetary phenomena. Inhabited world orbits are busy and regulated, and you may be challenged by authorities.

You must enter or leave orbit when landing or taking off from a planet; you needn't usually roll, but it's a zone you must pass through, and it may provide obstacles to other manoeuvres.

CLOSE TO PRIMARY

Approaching close to a system primary exposes you to Gravitational Anomaly and Radiation Source star system events (page 152), though it's the only way to get into a star's photosphere. It may pose an obstacle to movement.

THE INNER SYSTEM

A star's inner system is usually a few AU at most, depending on star size, and usually includes the habitable zone (page 255). An inhabited system's main world is usually here (often in the habitable zone), and it may be the busiest part of the system. There may be numerous worlds; travel times are given on page 151.

THE OUTER SYSTEM

A star's outer system is usually the cold dark reach occupied by gas giants and iceballs. Many of an inhabited system's industries may be here; it can be just as busy as the inner system, but is much "bigger", and so feels emptier. Travel times are given on page 151.

HELIOPAUSE

The heliopause, also known as the **n/2 boundary**, is the "edge" of a star system, where the star's stellar wind is stopped by the interstellar medium (page 241). Most importantly, it's the closest point to a star where it's safe to activate planing

engines without risking damage. It also marks the minimum safe emergence point for ships dropping out of 2-space. The distance to the heliopause varies; it's roughly 100x the h-zone distance for Old Earth.

OORT CLOUD

The Oort cloud is the spherical cloud of planetesimals at the outer limit of a star's gravitational dominance, beyond which ships emerging from 2-space risk precipitating the Pulse Dragon Phenomenon (page 145). For Old Earth, it's roughly a light year from the sun.

STELLIVORES

Interacting binary star systems have been identified outside Commonality Space which cannot be accounted for by current scientific theories. It's hypothesised these may be highly advanced exocultures actively manipulating the mass and energies of their primary stars. Known as **stellivores**, *these theoretical alien civilisations may pose enormous threats to the Commonality. Event horizon probes have been dispatched to several stellivore candidate systems to provide clandestine surveillance; as yet none have returned.*

X-Memcore

Going Off the Beaten Track

Characters may sometimes go "off map", heading into deep space, exploring entirely unknown star systems. Even in the Core Worlds, there are vastly more uninhabited star systems and little known stellar bodies than there are inhabited worlds, and it's easy to visit one. However, for the most part stellar bodies in the Core Worlds and Commonality sectors close to the Core have been at least superficially mapped; it's unlikely you'll find a massive and hitherto unknown star empire within a few light years of Old Earth. However, you may find unknown life-bearing worlds, and there may be surprises.

Out on the Fringe and beyond, the situation is very different; even systems of interest are poorly known, and there could be anything waiting in the dark. Characters visiting unknown stellar bodies beyond the Commonality Frontier should use Table 12-3: Stellar Body Type (page 235) to see what they find…

CHAPTER THIRTEEN
WORLD CREATION

"The universe adapts life to itself in many ways, and those that thrive are those that adapt most eagerly. On Belomor the colonists from Old Earth lost their human form millennia ago; now they were aquatics, with gills as well as lungs and huge eyes that saw heat in the eternal cold of ocean. Yet still they were human, mingling with their air-breathing fellows in the vast concourses of Belomor's metroplexes. In the seventeenth millennium, humankind had grown strange with the vastness of space and time; yet here, still, was commonality."

You can create individual worlds after you've created the star system they are in, or you can just start with the world and only worry about the star system if it comes up in play. Often, characters simply want or need to visit a particular planet, and don't care about what sort of star it's orbiting or what the other planets in that star system are like.

It's worth noting that the following rules are both more extensive than and somewhat different from the world creation material in the ***Traveller Core Rulebook*** (pages 216-228). We've included guidelines for converting between the two below, so you can convert ***Traveller*** worlds to the statistics used in ***Mindjammer*** or convert ***Mindjammer*** worlds to use the standard ***Traveller*** UWP.

CREATING WORLDS

When you create a world, generate as much or as little detail as you need. World creation is divided into three phases, providing incrementally more detail:

- **Phase 1: The Essentials** generates a **basic concept** for the world. Here's where you decide which table to start with and if you simply want to select some of the world's characteristics from one of the tables rather than rolling them. This type of profile is usually sufficient for a planet that the characters visit very briefly, or if they encounter a reference to it and check the Mindscape for basic information about the world.
- **Phase 2: The Standard Profile** generates the world's **characteristics**: its size, gravity, atmosphere, and other details, as well as information about any civilisation inhabiting the planet. The standard profile can also include details about the star and any other planetary bodies. This level of detail is sufficient for most games where the world is a feature of your adventure.
- **Phase 3: The Full Profile** generates planetary maps and events and encounter tables for the world and even the star system. It's appropriate for multiple sessions or single world campaigns; some games may want to just generate the maps.

Lost Colonies and Garden Worlds

Almost all rediscovered worlds are garden worlds—worlds which support human life with minimal technological aid. They usually have breathable atmospheres and an exploitable biosphere. There are an estimated 30,000 garden worlds within 1000 light years of Old Earth. Some are Commonality worlds or lost colonies; others are still being discovered and exploited. The Commonality only settles non-garden worlds when there's a pressing strategic or resource need. There are 100,000 known worlds (of all types) in Commonality Space (page 291).

PHASE 1: THE BASIC CONCEPT

You're free to let the dice guide you and see what you get; however, sometimes you need or want a specific sort of world. As mentioned above, the vast majority of worlds in the Commonality and on the Fringe that are inhabited by one or more branches of transhumanity are garden worlds (these are truly vast spaces, and there are a lot of star systems to choose from). Alternatively, though, you might want an exceptionally exotic and inhospitable world for the characters to explore in order to locate alien ruins or a crashed starship. In such cases, select the particular table or tables that best fit your needs, or select the world's key characteristics and roll others to give you the result you want.

Creating A Habitable, Inhabited World

To create a Commonality world, rediscovered world, or lost colony, roll 2D or select a **Planetary Type** from Table 13-1: Inhabited World Planetary Type. Planetary Types are described on page 263.

The second part of a habitable, inhabited world's basic concept is derived from its **Civilisation Type**, if any. Roll 2D on Table 13-2: Civilisation Type, choosing the column for Lost Colony World, Rediscovered World, Commonality World, or Core World, modified by the Civilisation Type DM from Table 13-1: Inhabited World Planetary Type, or pick a Civilisation Type you like. Civilisation Types are described on page 278.

Table 13-1: Inhabited World Planetary Type

Roll 2D	Planetary Type	Civilisation Type DM
2-3	Non-Garden World*	-3
4-5	Marginal Garden World	-2
6-8	Inferior Garden World	+0
9-10	Standard Garden World	+2
11-12	Superior Garden World	+3

** Roll again on Table 13-4: Unknown World Planetary Type (page 252)*

Creating an Unknown World

An unknown world is one you know nothing about; a star system which isn't a Commonality or rediscovered world or a known lost colony. It probably isn't even remotely habitable. There's a greater range of Planetary Types possible for unknown worlds, including hostile environments and some which properly speaking aren't planets at all. Roll 2D or pick one from Table 13-4: Unknown World Planetary Type; if you know the system's Stellar Body Age (page 236), modify the roll by its Planetary System Type DM. On exploration missions,

Table 13-2: Civilisation Type				
Roll 2D + DMs	**Lost Colony World**	**Rediscovered World**	**Commonality World**	**Core World**
-1	Failing	Failing	Failing	Prison / Closed World
0	Failing	Regressed	Instrumentality Hub	Instrumentality Hub
1	Regressed	Regressed	Synth Colony	High Population World
2	Regressed	Regressed	Corporacy World	High Population World
3	Alien Civilisation	Holdout	Depot	Depot
4	Holdout	Holdout	Seed Colony	Industrial World
5	Industrial World	Industrial World	Industrial World	Industrial World
6	Balkanised	Balkanised	Commonality Civilisation	Core World
7	Balkanised	United World	Commonality Civilisation	Core World
8	Balkanised	Balkanised	Commonality Civilisation	Core World
9	Regressed	Regressed	Corporacy World	Agri-World
10	Agri-World	Agri-World	Agri-World	Agri-World
11	United World	Culture World	Quarantined World	Quarantined World
12	Failing	Culture World	Instrumentality Hub	High Population World
13	High Population World	High Population World	High Population World	High Population World
14	Interstellar Civilisation	Interstellar Civilisation	High Population World	High Population World
15	Interstellar Hub	Interstellar Hub	Commonality Hub	Core World Hub

you can make planetary analyses (page 262) and preliminary cultural analyses (page 278) as usual. You can also use this table for determining other worlds in garden world systems.

There are many unknown worlds even within Commonality Space. Most are merely documented and little visited, others have way stations or outposts when the system offers unique resources or unusual phenomena, or where the Commonality must maintain a strategic presence (like the **Venu Q-Zone**, page 335).

Table 13-3: Garden World Classifications (using the Traveller 2nd Edition UWP)				
Classification	**UWP Planet Size**	**UWP Atmosphere**	**UWP Hydro**	**UWP Temperature**
Marginal Garden World[1]	4-10	5-9	1+	3-11
Inferior Garden World[2]	4-10	5-9	3+	5-9
Standard Garden World[3]	6-9	5, 6, 8	5-8	5-9
Superior Garden World	7-8	6	7-8	5-9

[1] At least one column must be outside the bounds of Inferior, Standard, or Superior Garden Worlds.
[2] At least one column must be outside the bounds of Standard, or Superior Garden Worlds.
[3] At least one column must be outside the bounds of Superior Garden Worlds.

Creating the Basic Concept

Once you have your world's Planetary Type, combine it with its Civilisation Type, if any, to create its basic concept. You can tweak this, but try and keep the two components clear if you'd like to expand the basic concept into a **standard profile** later.

Examples:

- *Regressed Lost Colony Inferior Garden World*
- *Verdant Commonality World Paradise*
- *Ruined Civilisation on a Swamp World Gas Giant Moon*
- *Rediscovered Balkanised Garden World*

Types of Garden World

Mindjammer *has four types of Garden World, unlike the single type described in the* **Traveller Core Rulebook** *(page 228). To help* **Traveller** *players better understand the differences between them, Table 13-3: Garden World Classifications presents the UWP ratings for each.*

Table 13-4: Unknown World Planetary Type

Roll 2D + DMs	Inner System	H-Zone	Outer System
0-1	Accretion Disk	Accretion Disk	Accretion Disk
2	Protoplanet	Protoplanet	Proto-gas Giant
3	Gas Giant	Desert World	Iceball
4	Inferno	Ocean World	Gas Giant
5	Terrestrial Planet	Terrestrial Planet	Ice Giant
6	Desert World	Garden World, Marginal	Dwarf Planet
7	Terrestrial Planet	Terrestrial Planet	Gas Giant
8	Inferno	Garden World, Standard	Gas Giant
9	Terrestrial Planet	Terrestrial Planet	Ice Giant
10	Garden World, Marginal	Garden World, Superior	Asteroid Belt
11	Desert World	Super Earth	Garden World, Marginal (moon)
12	Terrestrial Planet	Gas Giant	Rogue Planet
13	Gas Giant	Garden World, Inferior	Helium Planet
14	Chthonian Planet	Garden World, Marginal	Carbon Planet
15	Carbon Planet	Post-garden World	Carbon Planet

PHASE 2: THE STANDARD PROFILE

If you want to know more, you can "unpack" a basic concept to generate more details about the world and its star system. Do this in four steps:

1. Stellar Body Type

Each Planetary Type (page 263) lists the stellar bodies it may orbit. Choose one, or roll on the tables in **Chapter 12: Stellar Bodies and Star Systems** (page 235). Stellar Body Type tells you things like the star's colour, how far away the planet orbits, its year length, the colour of its sky and any vegetation, and so on.

2. Planetary Characteristics

Planetary characteristics describe a world's size, gravity, and so on. ***Mindjammer*** uses a different and expanded set of planetary characteristics from those given in the ***Traveller Core Rulebook***; see page 253. The Planetary Types (page 263) list characteristic ranges (for example, a Superior Garden World must have a Standard (6-9) Surface Temperature). You can choose each characteristic, or roll 2D, restricting your selection to the characteristic range.

Many characteristics modify subsequent characteristics. For example, the **Surface Gravity** characteristic has an **Atmosphere Pressure DM**, applied when determining a world's Atmospheric Pressure characteristic. If you're selecting the Atmospheric Pressure characteristic non-randomly, use the DM to restrict the range you choose from.

You can also do this process in reverse: create the planetary characteristics first (without restricting them to ranges), then find a Planetary Type to fit them.

Civilisations on Unknown Worlds

Although an unknown world may be uninhabitable to terrestrial organisms, there's a small chance it harbours intelligent life. See "Exointelligence" on page 313.

3. Civilisation Characteristics

If your world has a civilisation, it also has characteristics. Define these using the **Civilisation Characteristics** section below (page 268). Like planetary characteristics, civilisation characteristics must fall within the ranges indicated for the world's Civilisation Type (page 278).

4. Other Planets

Detail other planetary bodies in the star system if you need them. The Stellar Body Type can tell you the maximum number of planets (page 238), and Table 13-4: Unknown World Planetary Type (page 252) can tell you the Planetary Type of each of those planets. Use Table 13-1: Inhabited World Planetary Type (page 250) if you want more than one habitable world per system.

Collaborative World Profiles

You can take it in turns to create a world's planetary and civilisation parameters using these guidelines. The referee and players in turn select a planetary or civilisation type or parameter, by rolling 2D (and appropriate modifiers) or choosing freely.

PHASE 3: THE FULL PROFILE

Use a full profile to generate exhaustive detail on a world, including: a **planetary map**; a table of possible events; and a list of encounters.

Planetary Maps

A planetary map can be a great play-aid, helping you describe locations and track PC and NPC whereabouts. You can create a map before play or on the fly, or even collaboratively; an icosahedral map template can be found on page 371. See "Planetary Maps" (page 284) for more details.

PLANETARY TYPES AND CHARACTERISTICS

Planetary Characteristics

Planetary characteristics describe a world's size, atmospheric pressure, gravity, and so on; generating characteristics is described below. Some characteristics have **Biosphere** and / or **Habitability DMs**. Keep a running total of these, as you'll use them later: the **total** Biosphere DM (page 262) from all characteristics determines the likelihood of life on a planet; likewise, the total Habitability DM (page 262) helps determine how accommodating the planet is for terrestrial life.

1. STELLAR BODY TYPE

Each Planetary Type has a range of possible **Stellar Body Types**—usually the star it orbits (the system primary). Select one, or roll randomly on the tables in **Chapter 12: Stellar Bodies and Star Systems** (page 234).

I Just Need a Single Characteristic

Sometimes you just need a single characteristic for a world. Maybe you've been playing just with a world's basic concept, and now you want to know its gravity. You can quickly look up the Planetary Type's Surface Gravity range from its basic concept, and pick what you feel is an appropriate score. If you want a random score, roll 2D, without DMs. Jot down the Surface Gravity characteristic score you end up with; you can incorporate it into the world profile if you decide to generate more characteristics later.

Getting the Planetary Characteristics "Right"

As much as possible we've tried to ensure the planetary characteristics agree with current planetary science. Obviously **Mindjammer** *is a game and not a scientific treatise, so some combinations push credibility. In general, though, the characteristics provide a scientifically-grounded framework to help you create realistic planets, avoiding massive worlds with no gravity, or blazing hot asteroid worlds with low gravity and oxygen atmospheres. You don't have to follow these guidelines. Don't let the tables in this chapter and the next prevent you from having fun; if you have a cool idea for a planet or star system and can't make it fit, don't worry—go ahead anyway. No one on Earth has set foot in another star system yet, and every year our theories are overturned by new findings. It's a big galaxy, and there's plenty of room for surprises.*

We're generating a Marginal Garden World, whose entry on page 265 says "F- to M-class main sequence stars; others possible". We decide to roll on Table 12-3: Stellar Body Type (page 235), and end up with a K-class main sequence star.

2. PLANETARY AGE

Older planets lose heat, slow down in rotation, and have longer to develop life. Roll 2D or choose an age on Table 13-5: Planetary Age, or use the system primary's Stellar Body Age rating instead (page 237).

3. PLANETARY ORBIT

Roll 2D or pick an entry on Table 13-7: Planetary Orbit to determine how far from the system primary the world orbits. This isn't an exact figure, but depends upon the size and nature of the system primary; multiply the **Orbit Multiple** and **Year Length Multiple** entries by the system primary's **Habitable Zone Orbital Distance** and **Period** entries for approximate orbital distances in astronomical units (AU) and year lengths in standard years if you want greater detail.

Dice Modifiers from Planetary Characteristics

See page 237 for more on deriving DMs from planetary characteristics.

Table 13-5: Planetary Age

Roll 2D	Age	Day Length DM	Satellites DM	Biosphere DM	Biodiversity DM[1]
2	Extremely Young[2]	+4	-4	-5	-8
3	Very Young	+3	-2	-3	-6
4	Young	+2	+0	-1	-4
5	Maturing	+1	+0	+0	-2
6-8	Mature	+0	+0	+1	+0
9	Ageing	-1	-1	+3	+2
10	Old	-2	-2	+5	+6
11	Very Old	-3	-2	+5	+4
12	Ancient	-4	-2	+3	-6

[1] *Used in Chapter 15: Alien Life (page 301).*
[2] *Use Proto-planet Planetary Type (page 267).*

4. YEAR LENGTH

An approximate period in **standard years** calculated by multiplying the **Year Length Multiple** from Table 13-7: Planetary Orbit by the **Year Length Multiplier** from Table 13-6: Year Length Stellar Mass Multiplier. Year length affects season length, temperature extremes, habitability, and seasonality: see Table 13-8: Planetary Year Length.

5. PLANETARY SIZE

Roll 2D or choose an entry on Table 13-9: Planetary Size to determine the diameter of the planet in Old Earth diameters (approximately 12,800 km or 8,000 miles). Planetary Size provides a DM to the Density, Surface Gravity, and Biosphere characteristics, and indicates the width (in km) of 1 hex on the

Table 13-6: Year Length Stellar Mass Multiplier

Mass of Stellar Primary	Year Length Multiplier
0.1	3.16
0.5	1.4
2	0.7
5	0.4
10	0.31
25	0.2
50	0.15
100	0.1

Table 13-7: Planetary Orbit

Roll 2D	Orbit	Orbit Multiple	Year Length Multiple[1]	Density DM	Temperature DM	Biosphere DM
2-3	Highly Eccentric[2]	Roll twice	Average both	+0	Roll twice	-1
4	Extreme Inner	0.1	0.03	+2	+13	-3
5	Inner	0.4	0.25	+1	+11	-1
6	Habitable Zone, Inner	0.7	0.6	+0	+2	+2
7	Habitable Zone	1	1	+0	+0	+3
8	Habitable Zone, Outer	1.5	1.8	+0	-2	+2
9	Outer	5	11	-1	-13	-1
10	Outer	10	31	-2	-16	-2
11-12	Extreme Outer	40	253	+0	-18	-3

[1] Year Length Multiples are valid for orbits around a primary star of 1 solar mass (the same as Old Earth's sun). For greater or smaller masses, multiply the year length by the multiple in Table 13-6: Year Length Stellar Mass Modifier.
[2] All worlds have eccentric orbits to some extent, reflected in the Seasonality characteristic (page 261). A highly eccentric orbit actually passes between orbital bands (from inner to habitable, say, or even extreme inner to extreme outer). This plays havoc with surface conditions, giving a modifier to its Seasonality characteristic equal to the difference between the characteristic scores of the two orbits. Roll on the table twice, taking both results.

Table 13-8: Planetary Year Length

Year Length[1]	Comments	Seasonality DM
0.1	The planet orbits extremely rapidly. Day length and year length may be the same; life adjusts to the day-night cycle more than seasons. Unless Atmospheric Pressure is Low or below, temperature varies little between seasons.	-4
0.5	The planet orbits disconcertingly rapidly for terrestrial organisms, which have trouble adapting without genurgic modification; native biospheres are well adapted. Even in relatively eccentric orbits, seasonal temperature variation is reduced.	-2
0.8	The planet orbits more rapidly than terrestrial organisms find optimal. Seasons may be less marked.	-1
1	The planet's year length suits terrestrial organisms. Orbital eccentricity or axial tilt may account for seasonality.	+0
1.2	Organisms adapt with difficulty.	+1
5	The planet orbits slowly, and terrestrial organisms cannot adapt without genurgy. Seasonal variation is increased.	+2
50	The planet orbits very slowly, and even native life takes significant steps to cope with seasonality.	+4
500	The planet orbits extremely slowly, accentuating seasonal effects. Any biosphere may experience mass die-off or periods of extreme enervation or hibernation.	+8

[1] Year Length is given in standard years of 365 days.

The Titus-Bode Law

*The orbits in Table 13-7: Planetary Orbit are simplified versions of the **Titus-Bode Law** (actually more a theory than a law). For orbits up to the Outer Habitable Zone, only one planet should occupy a given orbit; if you roll a second planet in that orbit, discard that planet (this is why the "Maximum Number of Planets" is a maximum, not a fixed number). The Titus-Bode Law suggests additional orbits at 2.8 and 19.6 orbit multiples, as well as beyond the 40th orbital multiple.*

The "Habitable" Zone

*The **habitable zone** is the orbital distance from a system primary where liquid water can exist on a planet's surface, allowing for the possibility of **aqueous planets** where "life as we know it" can evolve. However, "life as we know it" is only a small part of the life which thrives in the cosmos, and the habitable zone is a humanocentric term, ignoring the many other environments where life may exist.*

Table 13-9: Planetary Size

Roll 2D	Size	Earth Diameters[1]	Hex Width (km)[2]	Density DM	Gravity DM	Max Moons	Biosphere DM	Traveller UWP Size
2	Planetesimal	0.01	3	+0	+3	0	-4	0
3	Planetoid	0.1	30	+0	+4	1	-2	1
4	Small	0.3	90	+0	+5	1	+1	2-3
5-6	Small Standard	0.5	140	+0	+6	3	+2	4-6
7-8	Standard	1	280	+0	+7	3	+2	7-8
9	Large Standard	1.5	430	+0	+8	5	+2	9-10
10	Large	3	850	-1	+12	10	+2	N/A
11	Very Large	5	1400	-3	+13	10	+0	Small Gas Giant
12	Giant	10	2800	-5	+15	50+	-2	Large Gas Giant

[1] These are median figures. Actual diameters will fall in a range to either side of this figure.
[2] Hex width for the median diameter. Assumes an icosahedral planetary map with a 45-hex circumference.

icosahedral map template (page 371). Planetary Size: Standard worlds or smaller may be gas giant moons, at the referee's discretion. We've also provided a cross-reference with the UWP Size characteristic in the ***Traveller Core Rulebook***.

6. PLANETARY DENSITY

Choose an entry or roll 2D on Table 13-10: Planetary Density to determine the planet's average density in Earth densities. Remember to apply the Density DMs from Table 13-7: Planetary Orbit and Table 13-9: Planetary Size.

7. SURFACE GRAVITY

Total both Gravity DMs from Table 13-9: Planetary Size and Table 13-10: Planetary Density, and look up the resulting **Gravity Rating** on Table 13-11: Surface Gravity to find the world's gravity in Old Earth gravities (G).

You can also make a straight roll of 2D on this table to quickly determine a Gravity Rating, but be aware this may yield some very unlikely values.

8. DAY LENGTH

Take a world's Planetary Orbit score (2, 6, etc.) and add the Day Length DMs from Table 13-5: Planetary Age and Table 13-11: Surface Gravity to calculate its day length on Table 13-12: Planetary Rotation. Extreme Inner Orbit planets are treated as a Planetary Orbit score of 1 for calculating rotation.

9. ATMOSPHERIC PRESSURE

Roll 2D on Table 13-13: Atmospheric Pressure and apply the Atmospheric Pressure DM from Table 13-11: Surface Gravity to calculate the world's atmospheric pressure in Old Earth atmospheres. We've also provided a rough-equivalence cross-

Table 13-10: Planetary Density

Roll 2D + DMs	Density	Comments	Earth Densities[1]	Gravity DM	Biosphere DM
0	Extremely Low	Saturn	0.05	-8	-3
1-2	Very Low	Chlom Baya, Jupiter, Neptune, Uranus	0.1	-6	-1
3-4	Low	Goltleifen, Pluto	0.25	-3	-1
5-6	Low Standard	Luna, Old Mars, Playanova, Vanguard	0.7	-1	+1
7-8	Standard	Old Earth, Nijmegen, Tameslond	1	+0	+1
9-10	High Standard	Morgna, Shay-shay, Yand	1.3	+1	+1
11	Dense	Mournstone, Swordstar	2	+2	+1
12	Very Dense	Chardos	3	+3	+1
13	Extremely Dense	Composed almost entirely of ultra-heavy elements.	5	+4	-1
14 or higher	Exotic	Composed of exotic matter like neutronium, or formed under other rare and extreme conditions.	10+	+10	-3

[1] These are median figures. Actual densities will fall in a range to either side of this figure.

Table 13-11: Surface Gravity

Gravity Rating	Gravity	Examples	Day Length DM[1]	Atmospheric Pressure DM	Biosphere DM	Gravity Action DM[2]
3 or lower	Microgravity (free fall)	Ares Ultor, Gamelan Belt.	-4	-12	-3	-1/0[3]
4	Very Low (0.1G or less)	Europa, Honnyo, Luna, Titan	-3	-5	-2	-1/0
5	Low (0.1G to 0.5G)	An-Fang, Old Mars	-2	-3	-1	-1/0
6	Low Standard (0.5G to 0.9G)	Clascamurd, Eisbogen, Uranus	-1	-2	+0	0
7	Standard (0.9G to 1.1G)	Old Earth, Fordwyle, Nijmegen	+0	+0	+1	0
8	High Standard (1.1G to 2G)	Crucis Harbour, Fugue	+1	+2	+1	-1/0
9	High (2G to 3G)	Jupiter, Yand	+2	+3	+0	-2/-1
10-11	High (3G to 5G)	Doy-Su, Mournstone	+3	+5	+0	-4/-2[4]
12-15	Very High (5G to 10G)	-	+4	+10	-2	-6/-3[5]
16 or higher	Exotic (10G to 20G and higher)	-	+5	+12	-3	-8/-4[6]

[1] Strictly speaking, a planet's rotation (page 256) isn't affected by its gravity, but rather by a complex combination of radius, mass, and density; for a given density, a more massive planet rotates more rapidly. For simplicity's sake, we use gravity as a rough equivalent.

[2] This table expands on the effects of different gravity described in the **Traveller Core Rulebook** *(page 76), with the first number being the penalty before the character acclimatises to the new gravity and the second number being the penalty (if any) after acclimatisation. None of these modifiers apply if the character is in a vehicle or building fitted with artificial gravity or is wearing a working grav belt.*

[3] See also the rules on zero gravity in the **Traveller Core Rulebook** *(page 77).*

[4] Living characters who stand up, walk, or exert themselves in any way must make an Average (8+) Athletics (endurance) check every 1D x 10 minutes to remain conscious. Only augmented or synthetic characters, drones, and avatars can acclimatise to this gravity.

[5] Living characters can only remain conscious by lying prone and either crawling or otherwise moving slowly, and even then must make a Difficult (10+) Athletics (endurance) check every 1D minutes to remain conscious. Due to the strain on a living character's body, all Mindscape actions suffer a DM-2. Only augmented or synthetic characters, drones, and avatars can acclimatise to this gravity.

[6] Living characters cannot act physically and must make a Very Difficult (12+) Athletics (endurance) check every 1D minutes to remain conscious. For living characters, all Mindscape actions suffer a DM-4. Only augmented or synthetic characters, drones, and avatars can acclimatise to this gravity.

reference with the UWP Atmosphere characteristic in the ***Traveller Core Rulebook***.

10. SURFACE TEMPERATURE

Roll 2D on Table 13-14: Surface Temperature and apply the Temperature DMs from Table 13-7: Planetary Orbit and Table 13-13: Atmospheric Pressure to calculate the world's average surface temperature. We've also provided a cross-reference with the UWP Temperature characteristic in the ***Traveller Core Rulebook***.

11. ATMOSPHERIC CONSTITUENTS AND SURFACE LIQUID TYPE

A planet's atmosphere is determined differently from its other characteristics. First, add up all of the planet's Habitability DMs so far. If the total is +1 or greater, the planet is an **aqueous planet**; -1 or lower, it's a **non-aqueous planet**; +0, it could be either (pick one). Second, choose the atmos-

Calculating Gravity

We're playing fast-and-loose in Table 13-11: Surface Gravity, sacrificing accuracy for playability. For greater accuracy, multiply the planet's size (in Earth diameters) by its density (in Earth densities) to calculate its surface gravity. This is summarised as: Gravity = Density x diameter. A Jupiter-sized world (at 11 Earth diameters) with the same density of Earth has a gravity of 11G; whereas one with twice Earth's density has a gravity of 22G!

pheric constituents you want from the tables on page 259-60; sometimes the components may be restricted by the planet's age. Atmospheric constituents also indicate what any surface liquid will be composed of.

AQUEOUS PLANETS

Liquid water is highly significant for the Commonality. Rocky planets with liquid water and somewhat hospitable environ-

Table 13-12: Planetary Rotation

Planetary Orbit Score + DMs	Rotation	Day Length	Biosphere DM
2 or lower	No Rotation / Tidal Lock[1]	As year	-3
3	Extremely Slow	100d+	-2
4	Very Slow	50d+	-1
5	Slow	10d+	+0
6	Reduced	2d+	+1
7	Standard (1 standard day)	24h	+2
8	Increased	22h	+0
9	Rapid	20h	-1
10	Very Rapid	18h	-2
11	Extremely Rapid	16h	-3
12	Extremely Rapid	14h	-5
13	Extremely Rapid	12h	-5
14	Extremely Rapid	10h	-5
15 or higher	Extremely Rapid	8h, etc.	-5

[1] A tidally locked planet rotates once every orbit, meaning it appears to not rotate at all, directing the same face to the star all the time. In addition to the fact that the planet's star sits immovably in its sky, this has dramatic effects on the surface environment, with a baking surface beneath the sun, a frigid "dark side", and a "twilight zone" circling the planet midway where conditions may be "milder", with even a T-Analogue biosphere (page 300) if in the habitable zone. Alternately, if the planet is sufficiently far from its star, then only the area closest to the star may be habitable and both the "dark side", and the "twilight zone" might be locked in icy cold.

Table 13-13: Atmospheric Pressure

Roll 2D + DMs	Atmospheric Pressure	Temperature DM	Surface Liquid DM	Biosphere DM	Habitability DM	Traveller UWP Atmosphere
2 or lower	Trace (0-0.09 atm)	-2	-10	-5	-10	0-1
3-4	Very Low[1] (0.1-0.4 atm)	-1	-3	-3	-3	2-3
5-6	Low[2] (0.41-0.7 atm)	0	-1	-1	-1	4-5 or 14
7-8	Standard (0.71-1.5 atm)	+1	+1	+1	+2	6-7
9	High (1.51-2.5 atm)	+2	+2	+1	0	8-9
10	Very High (2.51-10 atm)	+3	+3	+1	-1	13
11	Hazardous (11-50 atm)	+5	+4	-3	-3	11
12 or higher	Insidious (51+ atm)	+7	+5	-5	-5	12

[1] Requires a respirator even if the atmosphere is breathable.
[2] May require a respirator.

Table 13-14: Surface Temperature

Roll 2D + DMs	Surface Temperature	Examples	Temperature (°C)[1]	Biosphere DM	Evolution Index DM	Habitability DM	Traveller UWP Temperature
-1 or lower	Frozen	Pluto, Vanguard	-240	-2	-5	-10	-5
0-1	Frigid	Titan	-140	-1	-4	-3	-3
2-3	Cold	Old Mars (Pre-terraforming)	-70	+0	-3	-1	-1
4-6	Cool	Ice Age Earth	10	+1	-1	+1	0
7-9	Standard	Old Earth	14	+1	+0	+2	0
10-12	Warm	Ice-free Earth	20	+1	+1	+1	0
13	Hot	Goltleifen	100	-1	+2	-2	+1
14	Furnace	Mercury	180	-2	+3	-3	+2
15	Inferno	Inferno, Venus	500	-3	+4	-5	+3
16	Inferno	Kallisphere	1200	-3	+5	-7	+4
17	Inferno	-	2700	-5	+3	-7	+5
18	Chthonian	-	5700	-5	+3	-7	+6

[1] *For temperature in degrees Kelvin (K), add 273.*

Table 13-15: Aqueous Planet Atmospheres

Planetary Age	Breathability	Description	Habitability DM Range[1]	Traveller UWP Atmosphere
3 (Very Young)	Unbreathable	Hydrogen-nitrogen atmospheres with lots of water, and some ammonia, carbon dioxide and monoxide, methane, and sulphur compounds; or carbon dioxide, carbon monoxide, methane, and water vapour, with possible cyanides, formaldehyde, and traces of sulphur and hydrogen sulphide. May be filled with amino acids, sugars, and other building blocks of life; deadly to terrestrial life, they can support t-analogue, alternate, and parallel paradigms (page 300), and are often viewed as candidates for terraforming.	-1 (Inimical) or lower	Exotic (10)
5 (Maturing) to 9 (Ageing)	Breathable	Oxygen atmospheres, using photosynthesis or analogous processes, and developed t-analogue biospheres (page 300). If the Habitability DM is +0 (Marginal), then the atmosphere may be tainted, although perhaps breathable in the short term.	+0 (Marginal) or higher	3, 5, 6, 8, 13
4 (Young); or 10 (Old) or older.	Tainted	High CO_2 levels, unbreathable to humans without filters, although they may have t-analogue biospheres.	+0 (Marginal) or lower	2, 4, 7, 9

[1] *Adjust the current Habitability DM total up or down to fit within this range. For example, if you have a +3 Habitability DM for a Very Young Aqueous Planet, adjust the Habitability DM downwards to -1.*

What Colour Is the Sky?

Determining a world's sky colour can be surprisingly complex. The key factors are atmospheric pressure, star spectral class, and atmospheric particulates. Start with the sky colour listed for the star's spectral class (see "Stellar Body Types and Characteristics" on page 236) as the baseline colour. At Atmospheric Pressure 0 (Trace), the sky is black, brightening to reach the baseline colour at Atmospheric Pressure 5-6 (Standard), then lightening as the pressure increases through golden, yellow, pink, and finally red at Atmospheric Pressure 8 (Very High) and above. Methane in the atmospheric constituents adds a greenish tint to the sky. Particulates, or much more methane, make the sky increasingly red.

Table 13-16: Non-Aqueous Planet Atmospheres

Surface Temperature	Temperature (°C)	Description	Additional Habitability DM[1]
-1 (Frozen) or lower	-240	Close to absolute zero, atmosphere frozen out to solids of nitrogen ice, ethane and methane, carbon monoxide, ammonia hydrates, and perhaps water crystals.	-3
0-1 (Frigid)	-140	Seas of ethane, methane, or ammonia, hydrocarbon-based ecosystems, water "volcanoes", atmospheres of nitrogen, carbon dioxide, and so on. Biospheres are extremely slow-moving. Liquid ammonia is flammable in oxygen atmospheres, so ammonia biospheres may not use oxygen.	-1
2-3 (Cold)	-70	Iceball or cold desert; nitrogen or carbon dioxide atmospheres, liquid hydrogen fluoride, acidic and dangerous to terrestrial life, or liquid hydrogen peroxide, which may also turn the world into an aqueous planet.	-1
4-6 (Cool)	10	Sulphuric acid, sulphur dioxide, sulphur trioxide, and water; biosphere plant analogues may concentrate the sulphur, in turn metabolised by animal analogues, an example alternate paradigm (page 300). Liquids may be acidic hydrogen fluoride, or even ammonia at Very High Atmospheric Pressure or above; or hydrogen peroxide, hydrogen sulphide, hydrogen chloride, and silicon dioxide, which may function as biosphere solvents (page 299).	-4
7-9 (Standard)	14	Similar to Cool world atmospheres.	-4
10-12 (Warm)	20	Similar to Cool world atmospheres.	-4
13 (Hot)	100	Sulphuric acid, sulphur dioxide, sulphur trioxide, or even liquid ammonia at Very High Atmospheric Pressure and above. Alternate paradigm biospheres (page 300) may metabolise sulphur.	-1
14 (Furnace)	180	Similar to hot worlds, or possibly gaseous silicon dioxide, with oxygen-breathing silicon-based life forms. Furnace worlds are hostile to terrestrial life; many metals are liquid, and biospheres are exotic and fast-moving, although unlikely to perceive the PCs as threats unless attacked.	-1
15-17 (Inferno)	500-2700	High-pressure nightmare worlds of unbelievable temperatures, inferno world surfaces are almost entirely liquid. Any biospheres are very exotic; atmospheres are similar to hot worlds.	-2
18 (Chthonian) or higher	Up to 5700	As Inferno world atmospheres.	-4

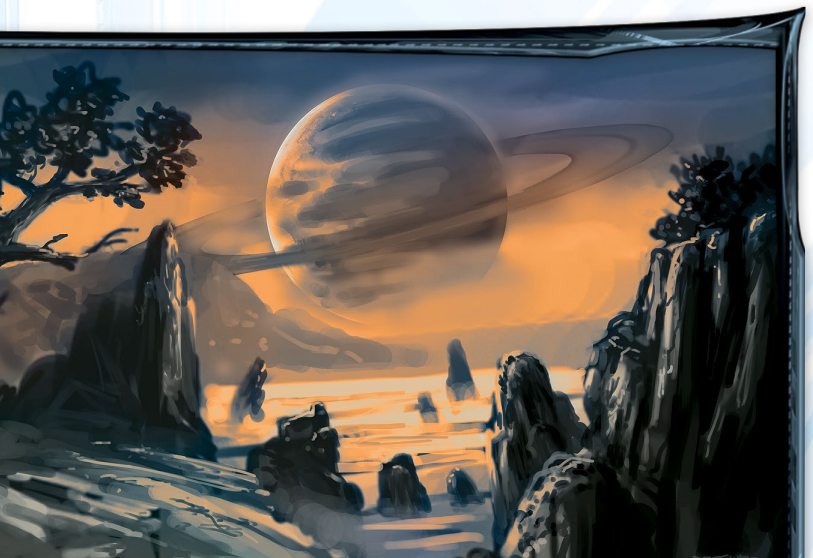
[1] To be added to the current Habitability DM total.

ments (usually involving oxygen atmospheres) are known as **aqueous planets**. Whether water is present on a world can also be determined by the planetary type (page 263); garden worlds of all types are aqueous planets, whereas Jupiter-like gas giants or Venusian infernoes are not.

Aqueous planets usually have the following planetary characteristics:

- **Density**: Low to Very Dense.
- **Surface Gravity**: Low to High.
- **Atmospheric Pressure**: Low to High.

Whether an aqueous planet atmosphere is breathable to humans is generally a function of its age, as shown on Table 13-15: Aqueous Planet Atmospheres; this may modify your world's Habitability DM to the range indicated. Aqueous planets with unbreathable atmospheres are often viewed as candidates for terraforming.



NON-AQUEOUS PLANETS

Non-aqueous planets are without liquid water, although other liquids may cover their surfaces. The constituents of non-aqueous planet atmospheres are largely a function of surface temperature (page 257), as shown on Table 13-16: Non-Aqueous Planet Atmospheres.

12. SURFACE LIQUID EXTENT

Roll 2D, or pick an entry from Table 13-17: Surface Liquid Extent, applying the Surface Liquid DM from Table 13-13: Atmospheric Pressure. The result indicates what proportion of the planet's surface is covered by liquid. The liquid (water,

Table 13-17: Surface Liquid Extent

Roll 2D + DMs	Surface Liquid Extent	Percentage Liquid Cover	Biosphere DM	Traveller UWP Hydrographics
2	None	0%	-5	0
3-4	Trace	1%-4%	-3	0
5	Very Low	5%-24%	-1	1-2
6	Low	25%-49%	+0	3-5
7	Average	50%-60%	+2	5-6
8	High	65%-79%	+2	7-8
9	Very High	80%-89%	+3	8-9
10	Almost Total	90%-99%	+5	9-10
11-12	Oceanworld	100%	+5	10

hydrogen fluoride, methane, etc.) is indicated in **Atmospheric Constituents and Surface Liquid Type** above. We've also provided a cross-reference with the UWP Hydrographics characteristic in the ***Traveller Core Rulebook***.

13. SEASONALITY

A world's **Seasonality** represents effects of axial tilt and orbital eccentricity. Roll 2D and apply the Seasonality DM from Table 13-8: Planetary Year Length (page 255) or select an entry from Table 13-18: Seasonality. Seasonality may profoundly affect a biosphere, causing hibernation states lasting long periods, making native life appear "dead", and so on.

Table 13-19: Satellites

Roll 2D	Satellite	Size[1]	Biosphere DM	Traveller UWP Size
2-5	No Moon	n/a	-2	0
6	Ring System	n/a	-1	0
7-8	Planetesimal	2	+0	0
9	Planetoid	3	+1	1
10	Small	4	+2	2-3
11	Small Standard	5-6	+2	4-6
12	Standard	7-8	-2	7-8

[1] *Cross-reference the satellite's size on Table 13-9: Planetary Size for more detail.*

14. PLANETARY RESOURCES

Planetary Resources represent exploitable elements and compounds. They depend on the system primary (page 238), which determines the elements in the original accretion disk, the planetary type (page 263), and the atmospheric constituents (page 259-60), which determine how those elements are distributed and other resources which might have developed.

Planetary resources are either **plentiful**, **standard**, or **scarce**. Plentiful indicates a resource easily available in great quantities or quality; scarce indicates a resource which is poor, rare, difficult to extract, or perhaps absent entirely. **Worlds always have a plentiful resource in their atmospheric and surface liquid constituents.**

Each Planetary Type listed on pages 263-8 has an entry

Table 13-18: Seasonality

Roll 2D + DMs	Seasonality	Comments	Biosphere DM
2	No Seasonality	The planet is partially tidally locked to its primary.	-4
3	Little Seasonality		-2
4	Very Low		+0
5	Low		+0
6	Low Standard	Terrestrial flora and fauna may thrive on aqueous planets in the habitable zone.	+0
7-8	Standard Seasonality		+0
9-10	High Standard		+0
11	High		+0
12	Very High		-2
13	Extreme Seasonality	The world experiences drastic extremes of surface temperature. For a year length of 0.5 or less, the planet may have either a precarious biosphere, or a virulent and aggressive one. For a year length of 50 or more, the world may experience long periods of freezing or burning conditions.	-4
14	Twin Climates	Seasonality shifts are so extreme that the world effectively has two climates—perhaps one frozen, the other an inferno. Conditions are appalling; exotic biospheres are possible (for example, magnetic field life forms), but "life as we know it" doesn't stand a chance.	-8

for resources, indicating both scarce and plentiful resources. Standard resources are neither plentiful nor scarce; they're more or less available on the world, and as such aren't explicitly mentioned. Combine Planetary Resources with Stellar Body Resources (page 238) for an overview of available resources in the system. Resources are primarily used in trade (page 207).

15. SATELLITES

For each potential moon indicated in Table 13-9: Planetary Size, roll 2D or select an entry from Table 13-19: Satellites, applying the **Satellites DM** from Table 13-5: Planetary Age. A world cannot have a moon larger than itself, though it may have one the same size, in which case it is a **binary planet** (page 263). Moons are worlds in their own right; cross-referencing their Size on Table 13-9: Planetary Size for additional detail as required, except that their orbits are those of their parent planet. Additionally, their Surface Temperature characteristic is +1 higher due to tidal heating, or +2 if the parent's Surface Gravity is High or above.

16. BIOSPHERE

Biosphere is a simple check to determine whether life of any kind exists on the world. Add up all of the Biosphere DMs from Planetary Age, Planetary Orbit, Planetary Size, Planetary Density, Surface Gravity, Day Length, Atmosphere Pressure, Surface Temperature, Surface Liquid Extent, and Seasonality, and add the total to a roll of 2D. Cross-reference the result on Table 13-20: Biosphere to determine the world's biosphere, if any.

17. HABITABILITY DM

Habitability indicates how friendly or inimical a planet's environment is to terrestrial life forms, including characters. It also indicates how close to terrestrial any biosphere is. Rather than being a simple characteristic score, it's a DM totalling all the Habitability DMs provided so far. A lower Habitability DM indicates a more hazardous environment or less terrestrial biosphere; a higher one indicates a biosphere closer to terrestrial (i.e. "life as we know it"). Add up all of the **Habitability DMs** entries from Table 13-13: Atmospheric Pressure, Table 13-14: Surface Tem-

Table 13-20: Biosphere

Roll 2D + DMs	Biosphere	Comments
6 or lower	No Biosphere	No life on the world.
7-10	Simple Biosphere	Single-celled organisms or equivalent; roll on the "Unsettled World" column on Table 15-1: Biosphere Paradigm to determine its nature, but don't develop the biosphere: there isn't really one yet.
11 or higher	Biosphere	Life exists. See **Chapter 15: Alien Life** to determine its details and biosphere concept.

Table 13-21: Planetary Habitability

Habitability DM	Habitability	Comments
-4 or lower	Deadly	Requires extreme habitat protective measures, extreme environment adaptation, etc.
-3	Lethal	Will defeat vac sealing and p-suits; armour and shields will protect against damage.
-2	Hostile	Requires vac-sealing, p-suits, etc, to avoid harm.
-1	Inimical	As above.
+0	Marginal	Requires respirators or filters, to avoid harm.
+1	Challenging	The environment is immediately survivable but conditions may be severe in the medium to long term.
+2	Adequate	Sufficient for long-term surival.
+3	Agreeable	Favourable for long-term habitation.
+4 or higher	Benign	Ideal for long-term habitation.

Exploration Missions: Planetary Analysis

Sometimes characters only need to examine a single planet in a star system. This is faster than a detailed system analysis, and is most often performed if Mindscape data for the planet is unavailable or incomplete, or if it appears incorrect due to error or catastrophic or other major change. The starship must be within Distant Range (300,000 km) of the planet to perform a planetary analysis.

- Perform a Planetary Analysis: *Average (8+) Interface (sensors) check (1D hours, INT or EDU).*

A marginal success or better *reveals full planetary characteristic data (page 253) for the planet and any moons or artificial structures it possesses.*

Each negative point of Effect *indicates that 1 planetary characteristic is incorrect. Errors may be minor, but can still cause significant problems. For each incorrect characteristic, roll 1D: 1-3 = the characteristic appears 1 point lower than it actually is; 4-6 = the characteristic seems 1 point higher than it actually is.*

Exploration Missions: Detailed System Analysis

Every system with known sentient inhabitants that has been visited by an event horizon probe or other starship has a detailed system analysis in the Mindscape. However, extremely recent scans may not yet be available due to chronodisplacement (page 136), and apparently uninhabited systems may not have been scanned to any level of detail. Performing a detailed system analysis requires a starship to traverse the star system, analysing each world in turn. A detailed system analysis requires a significant outlay of time, but reveals extensive information about each world in the star system.

- Perform a Detailed System Analysis: *Difficult (10+) Interface (sensors) check (1D+1 days, INT or EDU).*

A marginal success or better *reveals all the information provided by an average success on a preliminary system scan (page 239), as well as full planetary characteristics (page 252) for every planet, moon, or other body in the system. Each positive point of Effect also reveals one star system event (page 152).*

Each negative point of Effect generated indicates that 1D3 planetary characteristics are incorrect for one planetary body. Errors may be minor, but can still cause significant problems. For each incorrect characteristic, roll 1D: 1 = the characteristic appears 2 points lower than it actually is; 2-3 = the characteristic appears 1 point lower than it actually is; 4-5 = the characteristic appears 1 point higher than it actually is; 6 = the characteristic seems 2 points higher than it actually is. In addition, failure can result in the starship encountering one of the local star system events without warning.

perature, and Table 13-16: Non-Aqueous Planet Atmospheres to provide a single Habitability DM, cross-referenced on Table 13-21: Planetary Habitability. Non-aqueous worlds (page 260) have a maximum **Habitability DM** of Inimical (DM-1).

A positive Habitability DM indicates a habitable environment, with higher DMs being increasingly habitable: Challenging (DM+1) is very harsh, Marginal (DM+0) means you can probably just about breathe but will die quickly. A negative Habitability DM is uninhabitable, and progressively lethal. The Habitability DM may also be applied to survival checks, and is used when defining biospheres in **Chapter 15: Alien Life.**

Planetary Types

The following planetary types are examples of the worlds which can be found throughout Human Space. They aren't exhaustive; feel free to design your own.

ACCRETION DISK

Disks of debris and gases at the centre of which protostars kindle, and which may eventually form planets, these are active regions filled with collision hazards but rich in resources. They may contain organic molecules like amino acids.

Stellar Body: Pre-Main Sequence Star, Protostar; Black Star, Electroweak Star, Stellar Black Hole, White Dwarf.
Age: 2 (Extremely Young).
Orbit: Any.
Size: 2 (Planetesimal).
Density: 0-8 (Extremely Low to Standard).
Gravity: 4 (Very Low) or lower.
Day Length: n/a.
Atmospheric Pressure: 4 (Very Low) or lower.
Temperature: Any.
Liquid: Any.
Seasonality: n/a.
Biosphere: Alternate.
Habitability: DM-2 (Hostile) or worse.
Resources: *Plentiful*: carbons, dispersed silicates, organics, zanthrium ore; *Scarce:* water.

ASTEROID BELT

Asteroid belts are dispersed planetoids usually occupying a single orbit. Asteroids come in three types: **carbonaceous**, **metal-rich**, and **silicate**. Many asteroids are older protoplanets (page 267), cold and with fewer radioactive elements. They may contain amino acids.

Stellar Body: Any.
Age: Any.
Orbit: Any.
Size: 3 (Planetoid) or smaller.
Density: 3-11 (Low to Dense).
Gravity: 4 (Very Low) or lower.
Day Length: n/a.
Atmospheric Pressure: n/a.
Temperature: Any.
Liquid: None.
Seasonality: n/a.
Biosphere: Any.
Habitability: DM-2 (Hostile) or worse.
Resources: *Plentiful*: amino acids, carbons, metals, organics, silicates.

BINARY PLANET

Binary planet systems occur when a world and its moon are similar sizes and orbit a common centre of gravity. They're

relatively common. In a binary system, both worlds are subject to tidal heating and considerable surface tides.

CARBON PLANET

Carbon planets form from carbon-rich, oxygen-poor **accretion disks** (above), often around S-class and C-class stars (page 245). They differ from **terrestrial planets** (page 268), which are mostly silicon-oxygen compounds. Their cores are surrounded by molten carbide and graphite layers, with a lower diamond layer if Extremely Dense, all of which can spew forth in volcanoes. The hydrocarbon surface is frozen or liquid depending on temperature, including rivers of oils and methane compounds and tar sludges; the atmosphere is rich in carbon monoxide. There's no water, but at Hot temperatures or less there may be hydrocarbon rain.

Stellar Body: S-class and C-class stars.
Age: Any.
Orbit: Any.
Size: 2-9 (Planetesimal to Large Standard).
Density: 5-13 (Low Standard to Extremely Dense).
Gravity: Any.
Day Length: Any.
Atmospheric Pressure: 11 (Hazardous) or lower.
Temperature: Any.
Liquid: Any (hydrocarbons).
Seasonality: Any.
Biosphere: Alternate.
Habitability: DM-1 (Inimical) or worse.
Resources: *Plentiful*: carbides, diamond, graphite, methane, titanium.

CHTHONIAN PLANET

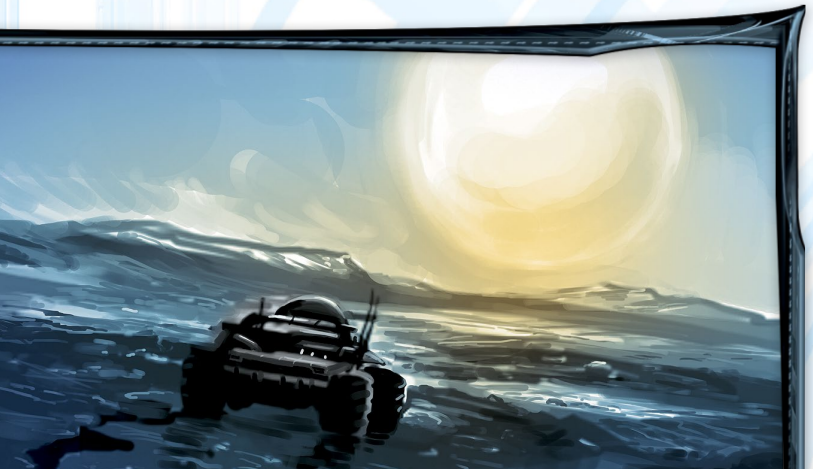
The dead core of an evaporated gas giant which has lost its hydrogen and helium outer layers through close proximity to its primary, a chthonian planet is a rocky or metallic core similar to a terrestrial planet (page 268), although extremely hot with active vulcanism.

Stellar Body: Any main sequence or significant star.
Age: 6-8 (Mature) or older.
Orbit: 4-5 (Extreme Inner to Inner).
Size: 5-10 (Small Standard to Large).
Density: 11-14+ (Dense to Exotic).
Gravity: 8-15 (High Standard to Very High).
Day Length: 2-3 (Tidal Lock to Extremely Slow).
Atmospheric Pressure: n/a (stripped).
Temperature: 18 (Chthonian).
Liquid: Any.
Seasonality: 2 (No Seasonality).
Biosphere: Exotic.
Habitability: DM-3 to DM-4 (Lethal to Deadly).
Resources: *Plentiful*: exotic gravity elements; *Scarce:* helium, hydrogen.

DESERT WORLD

Barren worlds with little or no water or other surface liquid, some desert worlds with reasonable atmospheric pressures and surface temperatures are marginal garden worlds. Others are uninhabitable without technological support. Desert worlds are often terraforming candidates. Desert worlds are "hot" or "cold", depending on surface temperatures and their position relative to the habitable zone. Most are not completely dry, perhaps with free-standing water near the poles or at the equator. Hot desert worlds without water are at risk of runaway greenhouse heating.

Stellar Body: Any main sequence or significant star.
Age: Any.
Orbit: 6-8 (Inner H-Zone to Outer H-Zone).
Size: 10 (Large) or smaller.
Density: 3-12 (Low to Very Dense).
Gravity: 3-15 (Microgravity to Very High).
Day Length: Any.
Atmospheric Pressure: 5-9 (Low to High).
Temperature: 2-13 (Cold to Hot).
Liquid: 2-5 (None to Very Low).
Seasonality: Usually 5 (Low) or lower.
Biosphere: Transplant, T-Congruent, T-Analogue, Alternate.
Habitability: Any.
Resources: *Plentiful*: silicates, maybe hydrocarbons, some metals.



ROSETTES

X-Memcore

Worlds have been discovered which are "multiple planet systems" of 3 or 4 or even more worlds orbiting a common centre of gravity. Unlike binary planets, these are not thought to be natural formations, although who or what created them—and why—is unknown. They are beyond current Commonality science, a theoretical Tech Index of T12 or higher. They are often linked with the mysterious ***Predecessors****.*

DWARF PLANET

Dwarf planets are closer to planets than asteroids, their spherical shapes created by gravity. They're derived from protoplanets, cooler and with fewer radioactives, which have not managed to clear their orbits of other bodies.

Stellar Body: Any star.
Age: Any.
Orbit: Any.
Size: 3 (Planetoid).
Density: 3-11 (Low to Dense).
Gravity: 3- to 6 (Microgravity to Low Standard).
Day Length: 2- to 6 (No Rotation to Reduced).
Atmospheric Pressure: 2- to 9 (Trace to High).
Temperature: Any.
Liquid: Any.
Seasonality: Any.
Biosphere: Any.
Habitability: Any.
Resources: As protoplanet.

GARDEN WORLD, MARGINAL

Marginal garden worlds include aqueous worlds with extreme orbits, oceanworlds, garden worlds with very high or low gravity, trace or tainted atmospheres, no water, and so on. Some otherwise hospitable garden worlds are made marginal by their highly eccentric orbits, often taking them out of the habitable zone.

Stellar Body: F- to M-class main sequence stars; others possible.
Age: 3-12 (Very Young to Ancient).
Orbit: 2-3 (Highly Eccentric); or 5-10 (Inner to Outer).
Size: 3-10 (Planetoid to Large).
Density: 3-11 (Low to Dense).
Gravity: 5-11 (Low to High).
Day Length: Any.
Atmospheric Pressure: 5-9 (Low to High).
Temperature: 2-13 (Cold to Hot).
Liquid: Any.
Seasonality: Any, esp. non-standard.
Biosphere: Transplant, T-Congruent; T-Analogue.
Habitability: DM-1 to DM+4 (Inimical to Benign).
Resources: *Plentiful*: biosphere, hydrocarbons, metals, organics, water.

GARDEN WORLD, INFERIOR

Inferior garden worlds cluster around outlier conditions, with days too long or too short, temperatures too hot or too cold, and so on. They include garden worlds with eccentric orbits, too much or too little water, high gravity, tainted atmospheres.

Stellar Body: F- to M-class main sequence stars; others possible.
Age: 3-11 (Very Young to Very Old).
Orbit: 5-10 (Inner to Outer).
Size: 4-9 (Small to Large Standard).
Density: 5-10 (Low Standard to High Standard).
Gravity: 6-8 (Low Standard to High Standard).
Day Length: 4-10 (Very Slow to Very Rapid).
Atmospheric Pressure: 5-9 (Low to High).
Temperature: 4-12 (Cool to Warm).
Liquid: 6 (Low) or higher.
Seasonality: 11 (High) or lower.
Biosphere: Transplant, T-Congruent; T-Analogue.
Habitability: DM+1 to DM+4 (Challenging to Benign).
Resources: *Plentiful*: biosphere, hydrocarbons, metals, organics, water.

GARDEN WORLD, STANDARD

Humans can live on standard garden worlds without difficulty; they're not exactly "Second Earths", but they're close.

Stellar Body: F- to G-class main sequence stars; others possible.
Age: 5-9 (Maturing to Ageing).
Orbit: 6-8 (Inner H-Zone to Outer H-Zone).
Size: 5-8 (Small Standard to Standard).
Density: 5-10 (Low Standard to High Standard).
Gravity: 7 (Standard).
Day Length: 5-9 (Slow to Rapid).
Atmospheric Pressure: 7-8 (Standard).
Temperature: 4-12 (Cool to Warm).
Liquid: 7-10 (Average to Almost Total).
Seasonality: 5-11 (Low to High).
Biosphere: Transplant, T-Congruent; T-Analogue.
Habitability: DM+2 to DM+4 (Adequate to Benign).
Resources: *Plentiful*: biosphere, hydrocarbons, metals, organics, water.

GARDEN WORLD, SUPERIOR

Superior garden worlds are perfect examples of human habitable worlds, with ideal temperatures and biospheres which can support humans (including agriculture) with minimal modification. They include Old Earth, and other garden worlds which have been extensively engineered.

Stellar Body: G-class main sequence stars.
Age: 6-8 (Mature).
Orbit: 6-8 (Inner H-Zone to Outer H-Zone).
Size: 5-8 (Small Standard to Standard).
Density: 7-8 (Standard).
Gravity: 7 (Standard).
Day Length: 7 (Standard).
Atmospheric Pressure: 7-8 (Standard).
Temperature: 7-9 (Standard).
Liquid: 7-10 (Average to Almost Total).
Seasonality: 7-8 (Standard).
Biosphere: Transplant, T-Congruent.

Habitability: DM+4 (Benign).
Resources: *Plentiful*: biosphere, hydrocarbons, metals, organics, water.

GAS GIANT

A large planet of at least 55 Old Earth masses, with an atmosphere of almost entirely hydrogen and some helium. Gas giants are usually inhospitable to humans, but may have exotic biospheres. They often have many satellites.

Stellar Body: Any.
Age: 3 (Very Young) or older.
Orbit: Any.
Size: 12 (Giant).
Density: 1-2 (Very Low).
Gravity: 9-11 (High).
Day Length: Any, but slower closer to primary, including tidal lock.
Atmospheric Pressure: 7-11 (Standard to Hazardous).
Temperature: Any.
Liquid: n/a.
Seasonality: Any.
Biosphere: Parallel, Exotic.
Habitability: Usually DM-4 (Deadly).
Resources: *Plentiful*: hydrogen.

HELIUM PLANET

A gas giant consisting of helium instead of hydrogen which forms from a low mass white dwarf star, which has undergone major mass loss (perhaps from a binary companion) reducing it to planetary mass.

Stellar Body: White Dwarf (former binary); or none.
Age: 3-4 (Very Young to Young).
Orbit: Any.
Size: 12 (Giant).
Density: 1-2 (Very Low).
Gravity: 9-11 (High).
Day Length: Any, but likely slower.
Atmospheric Pressure: 7-11 (Standard to Hazardous).
Temperature: Any.
Liquid: n/a (helium rain).
Seasonality: Any.
Biosphere: Parallel, Exotic.
Habitability: Usually DM-4 (Deadly).
Resources: *Plentiful*: helium.

ICEBALL

A rocky planet orbiting in the outer reaches of a solar system, so cold most of its atmosphere has turned to ice.

Stellar Body: Any.
Age: Any.
Orbit: 9-11+ (Outer to Extreme Outer).
Size: 2-9 (Planetesimal to Large Standard).
Density: 3-11 (Low to Dense).
Gravity: 3-11 (Microgravity to High).
Day Length: Any.
Atmospheric Pressure: 2-8 (Trace to Standard).
Temperature: -1 (Frozen) or lower.
Liquid: n/a.
Seasonality: Any.
Biosphere: Alternate.
Habitability: DM-3 to DM-4 (Lethal to Deadly).
Resources: *Plentiful*: frozen nitrogen, ethane and methane, carbon monoxide, ammonium hydrates, perhaps water ice.

ICE GIANT

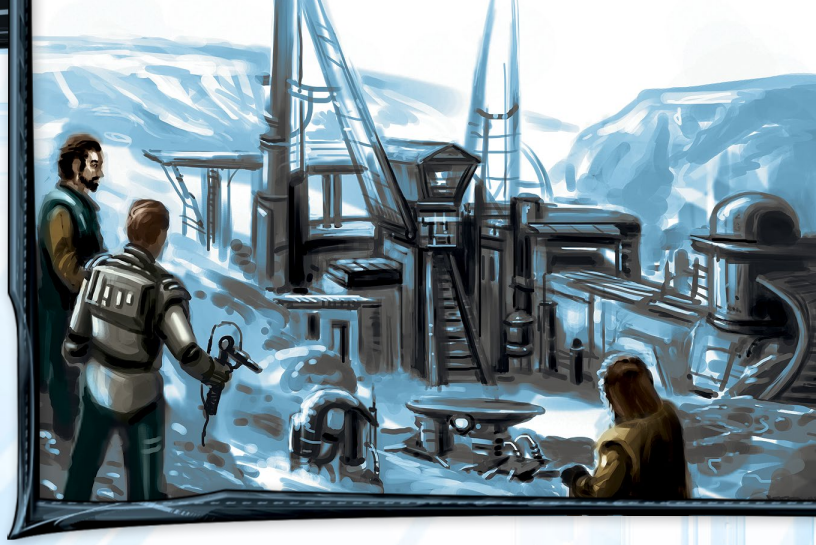
An ice giant is smaller than a gas giant (but at least 10 Old Earth masses), with a core of "ices" instead of hydrogen and helium, mostly water in supercritical fluid form. They have gaseous atmospheres smaller than standard gas giants.

Stellar Body: Any.
Age: Any.
Orbit: 9-11+ (Outer to Extreme Outer).
Size: 11 (Very Large).
Density: 1-2 (Very Low).
Gravity: 7 (Standard).
Day Length: 6-15 (Reduced to Extremely Rapid).
Atmospheric Pressure: 9-10 (High to Very High).
Temperature: -1 to 1 (Frozen to Frigid).
Liquid: n/a.
Seasonality: Any.
Biosphere: Exotic.
Habitability: DM-3 to DM-4 (Lethal to Deadly).
Resources: *Plentiful*: ammonia, helium, hydrogen, methane, water ice.

INFERNO

With terrific atmospheric pressures and / or proximity to a system primary leading to searing temperatures of 750K and higher, inferno worlds have no water, although oceans of molten metals and magma are possible.

Stellar Body: Any star.
Age: Any.
Orbit: 4-6 (Extreme Inner to Inner H-Zone).
Size: 4-9 (Small to Large Standard).
Density: 7-11 (Standard to Dense).
Gravity: 5-11 (Low to High).
Day Length: Any.
Atmospheric Pressure: 7-11 (Standard to Hazardous).
Temperature: 15 (Inferno) or higher.
Liquid: Any.
Seasonality: 5 (Low) or lower.
Biosphere: Parallel.
Habitability: DM-4 (Deadly).
Resources: *Plentiful*: carbon dioxide, molten metals, nitrogen, sulphuric acid.



OCEANWORLD

Completely covered in water oceans, oceanworlds may be garden worlds or steam-shrouded hotworlds. Found mostly in habitable zones, they're favourable environments for "life as we know it" to evolve. Oceanworld oceans may be hundreds of kilometres deep, with floors of exotic ices. Inner habitable zone oceanworlds are close to boiling, steam-shrouded with thick inhospitable atmospheres, although with more clement environments in the depths. Oceanworlds in outer habitable zones have thick atmospheres with considerable greenhouse effects. On higher gravity oceanworlds waves are small; on lower gravity worlds they are very large. Gas giant moons may be oceanworlds, kept unfrozen beneath kilometre-thick crusts of ice by tidal heating. They may have thriving biospheres or aquatic colonies.

Stellar Body: F- to M-class main sequence stars.
Age: Any.
Orbit: 6-8 (Inner H-Zone to Outer H-Zone); gas giant moons.
Size: 7-9 (Standard to Large Standard); 3 (Planetoid).
Density: 3-11 (Low to Dense).
Gravity: 7-11 (Standard to High); lower for moons.
Day Length: 3-15 (Extremely Slow to Extremely Rapid).
Atmospheric Pressure: 7-9 (Standard to High).
Temperature: 2-13 (Cold to Hot).
Liquid: 11+ (Oceanworld).
Seasonality: Any.
Biosphere: Transplant, T-Congruent; T-Analogue.
Habitability: DM+0 (Marginal) to DM+4 (Benign).
Resources: *Plentiful*: biosphere, hydrogen, oxygen, water.

PLATEWORLD

Plateworlds are the artificial worlds of the Commonality, huge disks or "plates" a thousand or more kilometres across, concave, with rim walls to contain their atmospheres. They usually orbit in the habitable zone, and are terraformed on their inner surfaces. Architectural monuments of the First Age of Space, they are relatively common in the Core, rare on the Fringe.

Stellar Body: Any.
Age: 6-8 (Mature).
Orbit: 7 (Habitable Zone).
Size: 5-6 (Small Standard).
Density: 9-10 (High Standard).
Gravity: 7 (Standard).
Day Length: 7 (Standard).
Atmospheric Pressure: 7-8 (Standard).
Temperature: 7-9 (Standard).
Liquid: 6 (Low)-8 (High).
Seasonality: 7-8 (Standard).
Biosphere: Transplant, T-Congruent.
Habitability: DM+4 (Benign).
Resources: *Plentiful*: biosphere, water.

POST -GARDEN WORLD

Post-garden worlds have evolved beyond garden world states and are no longer habitable to humans. They may be in the early stages of runaway greenhouse effects leading to infernoes (page 266), and may host Commonality outposts or research stations. P-suits or breathers are often required; life forms may be little more than lichen analogues.

Stellar Body: F- to M-class main sequence stars; others possible.
Age: 9 (Ageing) or older.
Orbit: 5-10 (Inner to Outer).
Size: 4-9 (Small to Large Standard).
Density: 5-10 (Low Standard to High Standard).
Gravity: 6-8 (Low Standard to High Standard).
Day Length: 2-10 (Tidal Lock to Very Rapid).
Atmospheric Pressure: 5-9 (Low to High).
Temperature: 4-12 (Cool to Warm).
Liquid: Any.
Seasonality: Any.
Biosphere: T-Congruent; T-Analogue.
Habitability: DM+0 to DM+1 (Marginal to Challenging).
Resources: *Plentiful*: hydrocarbons.

PROTO-GAS GIANT

A proto-gas giant is a region of an accretion disk (page 263) where swirling concentrations of hydrogen and helium are approaching the mass and density to form a gas giant (page 265).

Stellar Body: Any protostar; optionally any very young main sequence star.
Age: 2 (Extremely Young).
Orbit: Any.
Size: 12 (Giant).
Density: 0- (Extremely Low).
Gravity: 6-8 (Standard).
Day Length: 8-15 (Increased to Extremely Rapid).
Atmospheric Pressure: 3-10 (Very Low to Very High).
Temperature: 0-17 (Frigid to Inferno).
Liquid: n/a.
Seasonality: 4 (Very Low).
Biosphere: Usually too young.
Habitability: DM-3 to DM-4 (Lethal to Deadly).
Resources: *Plentiful*: helium, hydrogen.

PROTO-PLANET

Formed by planetesimal collisions in accretion disks (page 263) fusing into a single body, proto-planets have layered interiors and abundant radioactives. Early accretion disks may contain hundreds of protoplanets up to a few thousand kilometres in diameter, reducing in number and increasing in size as collisions continue. Eventually protoplanets become large enough to be classified as dwarf planets or planets; the remainder become asteroids.

Stellar Body: Any protostar; optionally any very young main sequence star.
Age: 2 (Extremely Young).
Orbit: Any.
Size: 2-3 (Planetesimal to Planetoid).
Density: 3-11 (Low to Dense).
Gravity: 3-6 (Microgravity to Low Standard).
Day Length: 3-15 (Extremely Slow to Extremely Rapid).
Atmospheric Pressure: 2-8 (Trace to Standard).
Temperature: -1 to 17 (Frozen to Inferno).
Liquid: Usually only magma.
Seasonality: Any, but usually low.
Biosphere: Usually too young; Maintained, Transplant, T-Congruent possible.
Habitability: DM-1 to DM-4 (Inimical to Deadly).
Resources: *Plentiful:* heavy elements, radioactives, zanthrium.

ROGUE PLANET

Planetary bodies ejected from star systems or forming independently in space (when they're also called **sub-brown dwarfs**), there are many more rogue planets drifting between the stars than there are stars in the galaxy. Rogue planets are giant planets, often gas giants with thick hydrogen atmospheres; some have liquid-water oceans, with biospheres powered by vulcanism, radioactive decay, or tidal heating if they have moons. Difficult to detect at distances greater than 1000 AU, in some cases (Exotic Gravity and above) their gravity wells prevent the emergence of the Pulse Dragon Phenomenon (page 145). The alien Lowhigh are said to have extensive data on rogue planets.

Stellar Body: None.
Age: 3 (Very Young) or older.
Orbit: n/a.
Size: 10-12 (Large to Giant).
Density: 1-11 (Very Low to Dense).
Gravity: 7-16 (Standard to Exotic).
Day Length: Any.
Atmospheric Pressure: 3-12 (Very Low to Insidious).
Temperature: 0-6 (Frigid to Cool).
Liquid: Any.
Seasonality: n/a.
Biosphere: T-Analogue, Alternate, Parallel, Exotic.
Habitability: Any.
Resources: As gas giant or terrestrial planet.

SUPER EARTH

A terrestrial planet or "gas dwarf" from 2 to 10 Old Earth masses. Some super earths may be garden worlds; others may be "mini-Neptunes".

Stellar Body: Any F- to M-class main sequence star.
Age: 3 (Very Young) or older.
Orbit: Any.
Size: 9 (Large Standard).
Density: 1-10 (Very Low to High Standard).
Gravity: 4-11 (Very Low to High).
Day Length: Any.
Atmospheric Pressure: 5-9 (Low to High).
Temperature: 0-14 (Frigid to Furnace).
Liquid: Any.
Seasonality: Any.
Biosphere: Any.
Habitability: Any.
Resources: As gas giant or terrestrial planet.

TERRESTRIAL PLANET

This catch-all term refers to all planets with rocky crusts surrounding dense metal cores, as opposed to gas giants. They may also be garden worlds, infernoes, desert worlds, and even iceballs.

Stellar Body: Any main sequence star.
Age: 3 (Very Young) or older.
Orbit: Any.
Size: 4-9 (Small to Large Standard).
Density: 5-11 (Low Standard to Dense).
Gravity: 4-11 (Very Low to High).
Day Length: Any.
Atmospheric Pressure: 2-11 (Trace to Hazardous).
Temperature: Any.
Liquid: Any.
Seasonality: Any.
Biosphere: Any.
Habitability: Any.
Resources: *Plentiful*: metals, silicates; as other type.

Dice Modifiers from Civilisation Characteristics

See page 237 for more on deriving DMs from civilisation characteristics.

CIVILISATION TYPES AND CHARACTERISTICS

This section provides guidelines for expanding a world's **Civilisation Type** to generate more detail about its inhabitants.

Civilisation Characteristics

Civilisation characteristics are generated in the same way as planetary characteristics. They provide descriptors and often DMs which may be used in play.

1. CIVILISATION DESIGNATION

The **Civilisation Designation** represents the label the Commonality government itself uses to describe a civilisation. While Civilisation Type is a rules element used by GM and players, Civilisation Designation is in-game terminology used by characters and NPCs. You usually choose a Civilisation Designation from Table 13-23: Civilisation Designation. You can also roll 2D, using the DMs shown on Table 13-22: Civilisation Designation DMs. Civilisation Designation also provides DMs for generating civilisation characteristics below.

Table 13-22: Civilisation Designation DMs

Location	Civilisation Designation DM
Core Worlds	+4
The Fringe	+0
Outer Worlds	-4

DESIGNATION NOTES

- **Alien World:** The world has been influenced by an intelligent alien species, in the past or currently co-existing with the lost colony population. Colonist descendants have been modified so that neither they nor their civilisation seem fully human any more.
- **Commonality Aligned:** The civilisation's culture is in Stage Two Normalisation or Stage Three Acculturation (page 231), but is otherwise open for business. It's a rediscovered world.
- **Commonality Autonomous:** The world is independent within the Commonality, likely a corporacy world. It manages its own affairs.
- **Commonality Member:** The world is a fully-fledged part of the Commonality, in Stage Four Cultural Integrity (page 232). It belongs to the Commonality culture and government.
- **Commonality Outpost:** A Commonality world usually surrounded by non-Commonality worlds. It may be a research, trade, or military outpost. Alternately, it might be

Table 13-23: Civilisation Designation

Roll 2D + DMs	Designation[1]	Government Type DM	Societal Dev DM	Openness DM	Starport DM
1	Lost Colony / Alien World	-3	-1	+0	-3
2	Independent: No Embassy	-3	+0	+0	-2
3	Commonality Outpost	+2	+0	-3	+1
4	Independent: Embassy	-3	+0	-1	+0
5	Commonality Quarantine	-2	+1	+1	+1
6	Commonality Aligned	-2	-2	-1	+1
7	Culture World	+0	+0	-3	+0
8	Commonality Autonomous	+3	+2	-2	+1
9-12	Commonality Member	+5	+4	-1	+1

[1] *When rolling for a Fringe World polity (such as the Sentient Alliance, etc), replace "Commonality" with the name of the polity. So, in the Fringe Worlds, a result of 9+ is "Sentient Alliance Member". Note that DMs may change accordingly.*

engaged in diplomatic, military, cultural manipulation, or surveillance ops.

- **Commonality Quarantine:** Access to the world is forbidden; it's under either Stage Zero Interdiction and Manipulation, Stage One Contact, or Stage Two Normalisation. There's a full Commonality quarantine in place (page 205), enforced by armed Commonality warships.
- **Independent (No Embassy):** The world is a rediscovered world which the Commonality hasn't begun to integrate yet, or which is under Stage Zero Interdiction and Manipulation.
- **Lost Colony:** The world is a lost colony, not yet rediscovered. It's probably unaware of the Commonality, and officially "off-limits", although there's no agency monitoring contact other than possibly an event horizon probe.

2. POPULATION

Roll 2D, modified by the world's **Habitability DM** (page 262), or choose an entry on Table 13-24: Population to determine the world's total inhabitants of all genotypes. We've also provided a cross-reference with the UWP Population characteristic in the ***Traveller Core Rulebook***.

3. GOVERNMENT TYPE

Choose an entry or roll 2D on Table 13-25: Government Type, applying the Government Type DM from Table 13-23: Civilisation Designation. A civilisation's government can also be defined as an **organisation** (page 185). We've also provided a cross-reference with the UWP Government Type characteristic in the ***Traveller Core Rulebook***.

Table 13-24: Population

Roll 2D + DMs	Population	Numbers	Control Index DM	Trade Index DM	Traveller UWP Population
1	Negligible	Hundreds	-2	-4	0-2
2	Sparse	Thousands	-1	-3	3
3	Very Low	Tens of thousands	-1	-2	4
4	Low	Hundreds of thousands	+0	-1	5
5-6	Low Standard	Millions	+0	+0	6
7-8	Standard	Tens of millions	+0	+0	7
9-10	High Standard	Hundreds of millions	+0	+0	8
11	High	Billions	+1	+1	9
12	Very High	Tens of billions	+1	+2	10
13	Dense	Hundreds of billions	+1	+3	11
14	Hyperdense	Trillions	+2	+4	12

Table 13-25: Government Type

Roll 2D + DMs	Government Type	Societal Dev DM	Openness DM	Control Index DM	Trade Index DM	Traveller UWP Government Type
2	Anarchy	-1	+0	-4	+1	0
3	Feudal	+0	-3	+2	-3	3 or 5
4	Monarchy	+0	-4	+2	-1	11
5	Representative	+0	-1	+0	+2	2 or 4
6	Mercantilist Oligarchy	+1	-2	+1	+4	11
7	Dictatorship	+2	-3	+3	+1	11
8	Oligarchy	+2	-1	+0	+1	3
9-10	Corporacy-controlled	+2	-2	+1	+4	8-9
11-12	Commonality-controlled (Oligarchy)[1]	+5	-2	+1	-2	8 (3)

[1] *When rolling for a Fringe World polity, replace "Commonality" by the name of the Fringe World polity.*

GOVERNMENT TYPE NOTES

- **Anarchy:** Massively decentralised government consisting of many very small local bodies, often highly representative, and no higher level structure. High tech index anarchies may have essential services run by synthetics.
- **Feudal:** A primitive but essential first step in governmental centralisation, where a pyramid structure of duties, loyalties, and responsibilities ties society together. There's usually little social mobility, and a lot of oppression, which tends to stifle further development.
- **Monarchy:** A larger-scale development of feudal government, where the lower strata of society may be more emancipated but the top levels retain their feudal structure and governing authority.
- **Representative:** Relatively rare in the Commonality, a government system where some or all administrators are subject to regular re-election by all or part of the population. Can lead to lowest-common denominator politics, corruption, and mob rule. Almost unheard-of in the Core, but more common on the Fringe.
- **Mercantilist Oligarchy:** An embryonic corporacy government, often masquerading as another type, where multiple competing commercial cartels administer all or part of the world. Commerce and consumerism is usually mandatory. Rare in the Core, but much more common on the Fringe.
- **Dictatorship:** Government by the dictates of a single strong individual, usually with a restriction of civil freedoms. Corruption is often endemic.
- **Oligarchy:** Government by the dictates of a committee, which usually selects itself or is chosen by an elite or minority. Suffers from all the problems of a dictatorship, but is less decisive and more conspiratorial.
- **Corporacy-controlled:** Government is for the commercial benefit of one or more corporacies (page 201) rather than the population; civilians are considered employees or customers rather than citizens.
- **Commonality-controlled (Oligarchy):** The standard Commonality government, with the instrumentalities carrying out policies coordinated and created by the Pansectorate ministries in response to direction from the custodians. See page 196 for more. Reroll if this world has a Civilisation Designation other than Commonality Outpost, Culture World, Commonality Autonomous, or Commonality member.

4. SOCIETAL DEVELOPMENT

A civilisation's society may progress through development stages, usually increasing in sophistication and complexity. Roll 2D or choose an entry on Table 13-26: Societal Development, applying the Societal Dev DMs from Table 13-23: Civilisation Designation and Table 13-25: Government Type.

SOCIETAL DEVELOPMENT NOTES

- **Hunter-Gatherer:** Pre-agricultural organisation of meat animal hunters and gatherers of wild crops. Usually uses a Barter economic system (page 209).
- **Small-scale Communities:** Basic agricultural organisation of local tribes, clans, and extended family groups. Usually uses Barter (page 209).
- **Labour Service:** Larger agricultural organisation where individuals are forced to contribute part of their time to labour on large-scale public works. Usually uses a Confiscation economic system (page 209).
- **Confiscation:** Large-scale organisation where arbitrary confiscation of produce and possessions finances an increasingly centralised and bureaucratic class. Usually uses a Confiscation economic system (page 209).
- **Taxation and Representation:** The population provides

Table 13-26: Societal Development

Roll 2D + DMs	Economy Type	Openness DM	Control Index DM	Trade Index DM	Tech Index DM	Embargo DM
2	Hunter-Gatherer	+0	-4	-4	-4	+3
3	Small-scale Communities	-2	-3	-4	-3	+2
4	Labour Service	+0	+0	-3	-2	+1
5	Confiscation	+2	+2	-3	-1	+1
6	Taxation and Representation	+2	+1	+1	+0	+0
7	Early Redistributive Model	+1	+1	+1	+1	+0
8	Consensus Redistribution Model	+2	+1	+1	+2	-1
9	Selfless Redistribution Model	+5	+2	+1	+2	-1
10	Widespread Intrusive Collective	+4	+3	-1	+1	-1
11	Widespread Unintrusive Collective	+4	+0	+1	+2[2]	-2
12	Sentience Coordinated Collective [1]	+3	+1	+0	+4[3]	-3

[1] Note that Sentience Coordinated Collectives in Fringe World polities will generally indicate a high degree of Commonality control. If this doesn't fit with the world's concept, replace with Widespread Unintrusive Collective instead.
[2] Minimum Tech Index T6.
[3] Minimum Tech Index T8.

a portion of the fruits of its labour to pay for the government, which in turn represents its interests. May use a Regulated or Unregulated Money Economy (page 213).

- **Early Redistributive Model:** The government forcibly collects some of the fruits of the population's labour, then redistributes this according to the population's perceived needs. This is frequently the model used by corporacy worlds. May use a Regulated Money or Planned Economy.
- **Consensus Redistributive Model:** The population agrees the government should collect much of the fruits of its labour, to redistribute according to the population's needs. May use a Regulated Money or Planned Economy.
- **Selfless Redistributive Model:** The population willingly gives all the fruits of its labour to the government, and receives back what it needs. May use a Planned Economy or an Interested or Disinterested Resource Allocation economy.
- **Widespread Intrusive Collective:** Society allocates largely willing individuals to planned labour and occupations; propaganda efforts are heavy-handed to smooth over the inefficiencies. May use a Planned Economy or Interested Resource Allocation economy.
- **Widespread Unintrusive Collective:** Society exhorts and recruits individuals to volunteer for labour and occupations which are planned at a high level without being obvious. Synthetics often take up the slack and cover any inefficiencies. May use a Planned Economy or Interested or Disinterested Resource Allocation economy.
- **Sentience Coordinated Collective:** The so-called "invisible government", synthetic sentiences allocate resources, accommodation, education, wealth, and labour according to higher-level plans, without creating inefficiencies or removing freedom of choice and movement, and without its participating members being aware of the details. Uses a Disinterested Resource Allocation economy.

5. ECONOMIC DEVELOPMENT

A civilisation's economic system may progress through development stages, and is strongly dependent upon its level of societal development. Look up the row for the world's Societal Development, and then roll 2D or choose an entry on Table 13-27: Economic Development. For example, if a world has a Societal Development of Early Redistributive Model, then a roll of 3 indicates it has a Regulated Money Economy, while a roll of 11 indicates it possesses a Planned Economy.

NOTES

For further information see "Economic Systems" on page 208.

- **Barter:** Goods and services are traded for one another directly, with no intermediaries like credit or money. This

Table 13-27: Economic Development

Economic System Societal Development	Barter	Confiscation	Unregulated Money Economy	Regulated Money Economy	Planned Economy	Interested Resource Allocation	Disinterested Resource Allocation
Hunter-Gatherer	All	-	-	-	-	-	-
Small-scale Communities	2-9	10-12	-	-	-	-	-
Labour Service	2-3	4-10	11-12	-	-	-	-
Confiscation	2	3-10	11-12	-	-	-	-
Taxation and Representation	-	2	3-7	8-12	-	-	-
Early Redistributive Model	-	-	-	2-9	10-12[1]	-	-
Consensus Redistribution Model	-	-	-	2-3	4-12[1]	-	-
Selfless Redistribution Model	-	-	-	2-3	4-6[1]	7[2]	-
Widspread Intrusive Collective	-	2-4	-	-	5-6[1]	7-12[2]	8-12[2]
Widespread Unntrusive Collective	-	-	-	-	2-5[1]	6-7[2]	8-12[2]
Sentience Coordinated Collective	-	-	-	-	-	-	All[2]

[1] Minimum Tech Index T6.
[2] Minimum Tech Index T8.

form of economy is rare in worlds with a tech index of T3 or higher

- **Confiscation:** A system of large-scale organisation where the elites confiscate much of the culture's wealth, leading to the creation of an increasingly centralised ruling class.
- **Unregulated Money Economy:** Money is used to purchase goods and services. The government enforces trade law but does not regulate the economy in more than a minimal fashion, typically leading to large scale inequality and a periodic boom and bust cycle.
- **Regulated Money Economy:** Money is used to purchase goods and services. However, the government insures that even the poorest members of society have adequate access to goods and services and also works to reduce inefficiencies and stabilise the economy.
- **Planned Economy:** The government controls the economy with the goal of providing for all citizens while also insuring economic prosperity and stability. This form of economy requires a Tech Index of at least T6 because of the massive amount of data gathering and processing requires. Attempts to create this type of economy at lower Tech Indices are typically doomed to failure and often become exceedingly corrupt, typically devolving into confiscation.
- **Interested Resource Allocation:** Synthetic sentiences allocate resources, accommodation, education, wealth, and labour according to higher-level plans, without creating inefficiencies or removing freedom of choice and movement, but the elites make certain that these arrangements provide them with a larger share of the culture's resources than they would obtain from a less biased system.
- **Disinterested Resource Allocation:** Synthetic sentiences allocate resources, accommodation, education, wealth, and labour according to higher-level plans, without creating inefficiencies or removing freedom of choice and movement, and while still rewarding excellence and dedication.

6. OPENNESS

Openness measures how much a civilisation is willing to look outwards, accepting ideas and contact from other civilisations. Choose an entry or roll 2D on Table 13-28: Openness, applying the Openness DMs from Table 13-23: Civilisation Designation, Table 13-25: Government Type, and Table 13-26: Societal Development. Treat any roll below 1 as 1 and any roll above 13 as 13.

7. CONTROL INDEX

Control Index represents how much the government tries to control and restrict the lives of its people; how oppressive the laws are, how much freedom a person has, and the opposition a character faces when they try something which encounters legal restrictions, bureaucracy, red tape, or government control. It affects checks when interacting with local law enforcement or bureaucracy, negotiating embargoes (page 275), the legality of various augmentations (page 100), and any situation where

characters must interact with local authorities. Choose an entry or roll 2D-2 on Table 13-29: Control Index, applying the Control Index DMs from Table 13-24: Population, Table 13-25: Government Type, and Table 13-26: Societal Development. We've also provided a cross-reference with the UWP Law Level characteristic in the ***Traveller Core Rulebook***. Use Control Index exactly like Law Level when making rolls using the rules listed in "The Law & Travellers" on page 224 of the ***Traveller Core Rulebook***.

Note: Some restricted weapons and augmentations are legal to purchase on worlds with Control Index 2 (Personal) or lower; almost all are legal to purchase on worlds with Control Index 1 (Mass Destruction) or lower, and may be freely used by anyone on worlds with Control Index 0 (No Control) or lower. See page 95 for more on restricted weapons and augmentations.

8. TRADE INDEX

Trade Index represents the amount of trade a civilisation engages in. Trade is primarily a phenomenon of the Fringe and Outer Worlds, away from the planned economies of the Core, and is heavily influencing the Commonality's development. Traders sometimes acquire assets like land and property in payment; on the Fringe, this means civilisations become more mercantilist, then corporatist, and sometimes even fascist. In contrast, most Core Worlds remain more communistic, with what little trade actually happens largely being the domain of resource allocation instrumentalities rather than individual traders. This is reflected in the **Trade Index DM** for Government Type; see "Commerce

Table 13-28: Openness

Roll 2D + DMs	Openness	Comments	Trade Index DM	Tech Index DM	Starport DM	Mindscape DM	Openness Action DM[1]
1	Closed	Introverted, paranoid, and xenophobic.	-5	-3	-3	-4	-5
2	Conservative	Isolationist.	-3	-2	-2	-3	-4
3	Resistant	Refuses external ideas, may wish to impose its own.	-2	-1	+0	-2	-3
4	Self-centred	-	-1	+0	+0	-1	-2
5-6	Equivocal	Accepts the outside's existence, but is not particularly interested.	+0	+0	+0	+0	-1
7-8	Guarded	Outward-looking but cautious.	+1	+0	+0	+0	+0
9	Self-critical	Willing to change.	+2	+0	+0	+0	+1
10	Self-improving	Embracing change.	+2	+1	+1	+0	+2
11	Outgoing	Enthusiastically looking outwards.	+3	+1	+1	+0	+3
12	Constant Change	-	+3	+2	+1	+0	+4
13	Open	Open to all new ideas, and actively seeking new ones.	+5	+3	+1	+0	+5

[1] *Use the Openness Action DM on any checks where a world's Openness is a direct factor, such as when engaging in speculative trade, looking for passengers, negotiating with leaders to open trade or diplomatic relations, or even attempting to socialise.*

Table 13-29: Control Index

Roll 2D-2 + DMs	Control Index	Comments	Trade Index DM	Embargo DM	Traveller UWP Law Level
0	No Control	No effective government controls.	+1	+3	0
1	Mass Destruction	No behavioural restrictions; weapons of mass destruction and unequivocal measures prohibited.	+2	+2	1
2	Personal	Laws against physical assault; heavy weapons prohibited.	+3	+1	2
3	Property	Laws against property seizure; fully automatic weapons prohibited. All restricted weapons and augments are illegal.	+2	+0	3-4
4	Speech	Laws restricting speech; non-hunting /non-sporting weapons and unequivocal measures prohibited.	+1	-1	5-6
5	Laissez-faire	Non-archaic weapons prohibited.	+3	-1	7
6	Influenced	Behavioural propaganda; all weapons and dissuasive measures prohibited.	+1	-1	8
7	Surveilled	Surveillance and overt control; potential weapons prohibited.	-1	+0	9+
8*	Restricted	Privacy and actions restricted; hazardous objects and substances prohibited.	-3	+0	9+
9*	Repressive	High surveillance	-5	+0	9+
10	Total	No personal privacy or freedom; conditioned population or prison planet.	-6	+0	9+

**Highly unusual for Commonality non-Core Worlds. Replace with 7 (Surveilled) or re-roll if this doesn't fit your world concept.*

and Industry in the Expansionary Era" (page 202) for more details. Choose an entry or roll 2D on Table 13-30: Trade Index, applying the Trade Index DMs from Table 13-24: Population, Table 13-25: Government Type, Table 13-26: Societal Development, Table 13-28: Openness, and Table 13-29: Control Index.

9. EMBARGO RATING

The Commonality often restricts the nature and Tech Index of items which may be traded with a world, known as the **Commonality embargo**. Roll 2D-7 or select an entry on Table 13-31: Embargo Rating, and apply the **Embargo DMs** from Table 13-26: Societal Development and Table 13-29: Control Index. On a result of 0 or less, there's no embargo on the world; on a result of 1 or higher, there's an embargo of equivalent rating. Reduce the world's Trade Index characteristic by the Embargo Rating (ie a +5 Embargo Rating reduces a Trade Index 10 to Trade Index 5). The exact details of an embargo vary with circumstances, but typically encompass one technological capability (page 217) per point of embargo, and include restricted technologies and technologies from higher Tech Indices.

A world that has not been previously contacted will lack an Embargo Rating. A world with an Embargo Rating will be defended by customs boats or other Commonality defences.

Note that a Commonality **quarantine** (page 205) suppresses

Table 13-30: Trade Index

Roll 2D + DMs[1]	Trade Index	Starport DM	Trade Index Action DM[2]
2	No Trade	-3	-5
3	Inconsequential	-2	-4
4	Very Limited	-1	-3
5	Limited	-1	-2
6	Low Moderate	+0	-1
7-8	Moderate	+0	+0
9	High Moderate	+0	+1
10	Extensive	+1	+2
11	Very Extensive	+1	+3
12	Ubiquitous	+2	+4

[1] Treat a roll of less than 2 as 2, and a roll of more than 12 as 12.

[2] Use the Trade Index Action DM when making Broker checks and other checks involving trading with members of this culture or attempting to negotiate trading treaties with them. See "Commerce and Industry in the Expansionary Era" (page 202) for more.

Table 13-31: Embargo Rating

Roll 2D-7 + DMs	Embargo Restrictions*
0 or lower	No restrictions.
+1	One capability; no restricted weapons and no vehicle or starship weapons.
+2	Two capabilities; no restricted technologies.
+3	Three capabilities; no weapons, armour, or planing engines.
+4	Four capabilities; no technologies from a higher TI other than medicines or other survival necessities or emergency relief supplies.
+5	Five capabilities; no technologies from a higher TI.
+6 or higher	Quarantine. No importation of any goods, no contact with off-worlders that has not been pre-approved by the Commonality.

**Note that each level of embargo includes all of the restrictions from lower levels*

all trade except that internal to the civilisation; reducing the Trade Index characteristic by -5. The Embargo rating represents an obstacle to trade; if you successfully "run" the embargo, then you use the reduced Trade Index rating when trading cargoes (page 206).

10. TECH INDEX

Tech Index represents the civilisation's technological sophistication (page 93), and indicates whether it has a planetary sentience, etc. Choose an entry or roll 2D-2 on Table 13-32: Tech Index, applying the **Tech Index DMs** from Table 13-26: Societal Development and Table 13-28: Openness. If you already know the Tech Index of the civilisation's culture, that Tech Index is the maximum you can roll. If you don't know the culture's Tech Index, the civilisation's Tech Index **becomes** the culture's Tech Index. If you roll or choose a Tech Index lower than the culture's Tech Index, that means your civilisation can't fully employ or implement the culture's tech, for whatever reason. We've also provided a cross-reference with the UWP Tech Level characteristic in the ***Traveller Core Rulebook***.

- Non-Commonality civilisations have a maximum Tech Index of T8 (Age of Ubiquitous Intelligence).
- Non-Core Worlds civilisations in the Commonality have a maximum Tech Index of T9 (Second Age of Space).
- Core Worlds civilisations in the Commonality have a maximum Tech Index of T10 (Age of 3-Space).

11. STARPORT FACILITIES

Often you'll simply choose a world's **Starport Facilities** from Table 13-33: Starport Facilities based on its civilisation type. Start with a rating of 7, or the "baseline starport" rating given in the **Civilisation Types** below (page 278), then apply the **Starport DMs** from Table 13-23: Civilisation Designation and Table 13-28: Openness. Alternatively, roll 2D and apply the modifiers. Facilities in a superficially explored system are at best low-level synthetic facilities: types S1 through S4, largely automated. S4 synthetic colonies may have rudimentary visitor facilities, including organic life support. Worlds with an organic presence

Table 13-32: Tech Index

Roll 2D-2 + DMs	Tech Index	Traveller UWP TL (approximate)
0	T0 - Post-animal	TL0
1	T1 - Stone Age	TL0
2	T2 - Metal Age	TL1
3	T3 - Age of Enlightenment	TL2-3
4	T4 - Industrial Age	TL4-5
5	T5 - Computer Age	TL6-7
6	T6 - Age of Genurgy	TL8-9
7	T7 - First Age of Space	TL10-11
8	T8 - Age of Ubiquitous Intelligence	TL12-14
9	T9 - Second Age of Space	TL15-18
10	T10 - Age of 3-Space	TL19-21

Table 13-34: Mindscape Facilities

Roll 2D + DMs	Mindscape Facility	Comments
2	None; or Temple of Universal Mind	Usually terminal access only. Alternately, this roll can be used for a potentially planet-wide T6 or T7 proto-Mindscape network that has not been integrated into the Commonality's Mindscape.
3	Local Node; or limited Mindscape	Small-scale Mindscape instance covering a settlement, city, or region. Alternately, this roll can be used for a potentially planetwide T7 proto-Mindscape network that has been integrated into the Commonality's Mindscape.
4	Global Mindscape	A single orbital Mindscape node providing regular access.
5	Global Mindscape	A Mindscape relay network providing real-time access.
6-8	Systemwide Mindscape	Mindscape relays throughout the system.
9	Systemwide Mindscape	Mindscape nodes and relay systems around multiple planets.
10	Mindscape Hub	Hub for the Mindjammer fleet.
11	Mindscape Hub	Hub for the Mindjammer fleet.
12	Mindscape Nexus	Usually one per sector; connected by 3-space gate to the Manhome Mindscape.

Table 13-33: Starport Facilities

Roll 2D + DMs	Starport Class	Title	Description	Mindscape DM	Traveller UWP Starport Rating
1	X	n/a	No facilities.	n/a	X
2	U – Uncategorised	Landing Strip	No other facilities.	-3	E
3	U, or S1 synthetic outpost	Seed Node	Usually single orbital.	-2	E
4	U, or S2 synthetic outpost	Seed Network	Multiple orbitals.	-1	E
5	U, or S3 synthetic outpost	Orbital Multiplicity	Multiple independent orbitals.	+0	E
6	U, or S4 synthetic outpost	Synthport	Orbitals and basic ground facilities.	+1	D
7	E-class starport	Forward Base, Basic Facility	Basic organic ground facilities with orbital station. May be Instrumentality-run.	-2	D
8	D-class starport	Starport	Standard ground facilities and orbital station, including minimal ship repair.	-1	D
9	C-class starport	Starport	Good ground and orbit facilities, including decent ship repair. Includes system-wide network.	+0	C
10	B-class starport	Starport	Mature ground and orbit facilities, shipyards. System-wide facilities.	+1	B
11	A-class starport	Octant Hub	Extensive ground and orbit facilities, probably including a Space Force Depot and multiple system-wide port facilities. Usually an octant capital.	+2	A
12	A2-class starport	Subsector Hub	Usually a subsector capital.	+3	A
13	A3-class starport	Sector Hub	Usually a sector capital.	+4	A
14	A4-class starport	Core Hub	Usually a province capital or Core World.	+4	A
15	A5-class starport	Manhome Terminus, The Hub	Old Earth.	+4	A

Exploration Missions: Preliminary Civilisation Analysis

New Traders and Commonality contact personnel need to understand what sort of worlds they are dealing with. This involves a broad raft of procedures known as civilisation analysis. A full civilisation analysis requires an understanding of the local language, but a preliminary civilisation analysis requires only orbital observation and the use of advanced sensors. If the world has previously been visited by event horizon probe, a preliminary ***civilisation analysis*** *should be available in the Mindscape.*

- Perform a Preliminary Civilisation Analysis: *Difficult (10+)[1] Social Science (anthropology) check (1D days, EDU).*

[1] Increase the difficulty to Formidable (14+) and the timeframe to 1D weeks if analysing an alien civilisation.

On a marginal failure*, you only learn the Civilisation Designation, Mindscape Facilities, and Starport Facilities characteristics of the planet you're observing.*

On a marginal success*, you also determine the world's Tech Index characteristic, and* ***on an average success*** *you learn the world's Population characteristic.*

(humans, hominids, xenomorphs, etc) usually have a facility, although it may be an official SCI Force Station, Space Force Depot, etc., and formal and controlled. More mature Commonality worlds have orbital and ground facilities servicing official and unofficial visitors: highports and groundports, rated E through A5. Fringe Worlds and some Outer Worlds may have analogous facilities, usually of lower quality. However, many Outer Worlds have no starport at all. Commonality World starports are present irrespective of the local Tech Index (they're controlled and managed by the Commonality government), while Outer World starports derive from the local Tech Index. The Starport Facilities characteristic can also provide modifiers (for example, to find a speculative cargo—see page 206). We've also provided a cross-reference with the UWP Starport characteristic in the ***Traveller Core Rulebook***.

12. MINDSCAPE FACILITIES

Commonality systems are within the Mindscape network, while unexplored systems have nothing, a S1 Synthetic Colony Seed Node (page 283), or perhaps a T6 or T7 proto-Mindscape (page 137). Roll 2D and add the **Mindscape DMs** from Table 13-33: Starport Facilities and Table 13-28: Openness, and cross-reference the result on Table 13-34: Mindscape Facilities. The world's Tech Index must be at least T8, and its designation be one of: Commonality Aligned, Commonality Member, Commonality Outpost, or Culture World. Independent Worlds with a Commonality embassy have limited Mindscape access like a Temple of Universal Mind. Otherwise, the maximum a world can have is a T6 or T7 proto-Mindscape. The Mindscape Facilities characteristic provides DMs to escaping detection by it, or as its ability it uses to resist casual Deceive or Hacking attempts, or to make exomemory rolls.

Civilisation Types

AGRI-WORLD

One of the many breadbasket worlds in Commonality Space and beyond, producing foodstuffs and agricultural products. Many resist makepoint technology; others—especially on the Fringe—compete with makepoint food production.

Exploration Missions: Preliminary Cultural Analysis

Once characters understand the basic features of a civilisation, they may wish to also attempt to understand the underlying culture. This data will only be available on the Mindscape if a first contact team previously visited it, and if this has occurred, then the planet may have an embargo. Performing cultural analysis can be done using only access to a TI 5+ data network, proto-Mindscape, or Mindscape, but the results are considered unreliable. SCI Force operatives always spend at least some time interacting with the local population when performing this analysis.

- Perform a Preliminary Cultural Analysis: *Difficult (10+)[1], [2] Social Science (memetics) check (1D x weeks, INT or EDU).*

[1] Apply a Bane to this check if no one interacts with residents of the planet in person. In this case, marginal success reveals only the Civilisation Type, and you only learn one of the culture's memes on an average success, and two on an exceptional success.

[2] Increase the difficulty to Formidable (14+), the timeframe to 1D x 4 months, and use Social Science (sophontology) if analysing an alien civilisation.

On a marginal success*, you learn the Civilisation Type and one of the culture's three memes. On an average success, you learn a second meme.* ***On an exceptional success****, you learn all three memes.*

On a marginal failure*, you learn only the Civilisation Type.* ***On a more serious failure****, you gain increasingly incorrect information about the culture's memes.*

Exploration Missions: Decipher Language and Full Civilisation Analysis

A full civilisation analysis first requires the characters to decipher the local language. Almost all languages used by lost colonies were originally descended from a relatively small number of known human languages, but have diverged for thousands of years, making the process of translating the language potentially difficult and time consuming. If the civilisation has a TI of 4+, then the characters can listen in on the world's news and entertainment broadcasts, data network, proto-Mindscape, or Mindscape, from orbit. Since almost all such networks have as their original basis the proto-Mindscape developed on Earth before the first slowships departed, understanding these broadcasts only requires learning the local language.

If the world has a TI of 3 or lower, the characters (or their avatars) must travel to the world's surface and observe and communicate with individuals. The check remains identical, but the process is different and potentially dangerous.

Any TI 4+ world that has been visited by an event horizon probe should have had its language translated by the probe, and the translation should be available in the Mindscape. TI3- worlds require personal contact with inhabitants to learn the language. Language translation routines will only be available in the Mindscape if a contact team has previously visited the world; if this has occurred, the planet may be embargoed or even quarantined.

- Decipher an Unknown Language: *Difficult (10+)*[1] *Social Science (linguistics) check (1D x 4 days, EDU).*
  [1] Increase the difficulty to Formidable (14+) and the timeframe to 1D months if analysing an alien civilisation.

***Success** means that translator routines (which may be basic sentiences) are now able to translate the language, permitting communication.*

Note that deciphering an unknown language is much easier if a character possesses the Language Translation posthuman EDU trait (page 330).

Once a civilisation's language has been deciphered, the characters may perform a full civilisation analysis, which may be done anywhere within Distance range (300,000 km) on a TI 5+ planet (the characters can access data networks, proto-Mindscapes, or the Mindscape). For lower TI civilisations the characters must make planetfall and observe or interact with the inhabitants to perform this analysis.

- Perform a Full Civilisation Analysis: *Difficult (10+)*[1] *Social Science (anthropology) check (1D weeks, INT or EDU).*
  [1] Increase the difficulty to Formidable (14+), the timeframe to 1D months, and use Social Science (sophontology) if analysing an alien civilisation.

***On a marginal failure**, you only learn the results of an average success on a preliminary civilisation analysis (see above).*

***On a marginal success**, roll 1D to determine which of the following civilisation characteristics you determine: 1 = Control Index; 2 = Economic Development; 3 = Government Type; 4 = Openness; 5 = Societal Development; 6 = Trade Index. Each point of Effect lets you roll again to determine another characteristic; reroll if you roll the same characteristic twice. Repeated checks allow you to determine additional characteristics.*

Apply a DM-1 to the analysis check if you wish to determine a specific characteristic.

Designation: Any.
Population: 5-10 (Low Standard to High Standard).
Government: 3 (Feudal) or higher.
Societal Dev: 4 (Labour Service) or higher.
Openness: 7-8 (Guarded) or lower.
Control: 6 (Influenced) or higher.
Trade: Any.
Tech: Any.
Starport: Any.
Mindscape: Any.

ALIEN CIVILISATION

A lost colony world remodelled by contact with an alien intelligence in the past, it operates on very different principles. The Chembu homeworld is an example.

Designation: 1 (Alien World); others possible.
Population: Any.
Government: Any.
Societal Dev: Any.
Openness: Any.
Control: Any.
Trade: Any.
Tech: Any.
Starport: Any.
Mindscape: Originally none; any after Rediscovery.

BALKANISED

Balkanised worlds are disunited civilisations with many separate governmental organisations and civilisations, often in conflict. The Commonality usually undertakes cultural ops

to unite the civilisations in a United World (page 284). Many balkanised worlds are embargoed.

Designation: 1-7 (Lost Colony to Culture World).
Population: 5 (Low Standard) or higher.
Government: Various.
Societal Dev: Various.
Openness: 4-8 (Self-centred to Guarded).
Control: Various.
Trade: Any.
Tech: T2 to T7.
Starport: B-class or below.
Mindscape: Usually none.

CLOSED WORLD

A world cut off from outside contact; the world itself may be closed, or the star system, or even a group of star systems. The Commonality usually imposes a quarantine. Smuggling can be lucrative, but hazardous.

Designation: 1(Lost Colony) or 5 (Commonality Quarantine).
Population: 11 (High) or lower.
Government: 4-8 (Monarchy to Oligarchy).
Societal Dev: 4 (Labour Service) or higher.
Openness: 1-2 (Closed to Conservative).
Control: 7 (Surveilled) or higher.
Trade: 2- (No Trade).
Tech: Any.
Starport: C-class or lower.
Mindscape: None.

COMMONALITY CIVILISATION

The standard for Commonality worlds, Commonality civilisations share the Commonality culture (page 232); they may occasionally be subcultures (page 228).

Designation: 9+ (Commonality Member); or 3 (Commonality Outpost).
Population: Any.
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: Any.
Control: Any.
Trade: Any.
Tech: T9.
Starport: Any.
Mindscape: 4 (Global Mindscape) or higher; outposts may have 3 (Local Node).

COMMONALITY HUB

A major Commonality world and transport and administrative centre. It may be an octant, subsector, or even sector capital.

Designation: 9+ (Commonality Member); or 7 (Culture World).
Population: 9-10 (High Standard) or higher.
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: 7-8 (Guarded) or higher.
Control: 3 (Property) or higher.
Trade: Any.
Tech: T9 or T10.
Starport: Octant Hub or higher.
Mindscape: 10 (Mindscape Hub) or higher.

CORE WORLD

The byzantine and sophisticated civilisations of the Commonality Core are part of the Core Worlds culture. They're usually highly specialised and stratified.

Designation: 9+ (Commonality Member).
Population: 11 (High) or higher.
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: 5-6 (Equivocal) or lower.
Control: 7 (Surveilled) or higher.
Trade: Any.
Tech: Any.
Starport: E-class or higher.
Mindscape: 6-8 (Systemwide) or higher.

CORE WORLD HUB

A pivotal core world, usually an octant or subsector capital. They may be paradoxically more active and yet more controlled than other core worlds.

Designation: 9+ (Commonality Member).
Population: 13 (Dense) or higher.
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: 7-8 (Guarded) or higher.
Control: 8 (Restricted) or higher.
Trade: 10 (Extensive) or higher.
Tech: T10.
Starport: Octant Hub or higher.
Mindscape: 10 (Mindscape Hub) or higher.

CORPORACY WORLD

Corporacy worlds are part of the Commonality culture, but are administered by one or more corporacies (page 201). They are usually centres of commercial or industrial activity.

Designation: 8 (Commonality Autonomous).
Population: 3 (Very Low) or higher.
Government: 9-10 (Corporacy-controlled).
Societal Dev: 7 (Early Redistributive Model) or higher.
Openness: 3 (Resistant) or higher.
Control: 3 (Property) or higher.
Trade: 9 (High Moderate) or higher.
Tech: T7 or higher.
Starport: E-class or higher.
Mindscape: 4 (Global Mindscape) or higher.

CULTURE WORLD

Structured to defend against cultural contamination and meme attack, culture worlds are highly conservative and often xenophobic. They may be naturally occurring, or manipulated by SCI Force.

Designation: 7 (Culture World).
Population: 5-6 (Low Standard) or higher.
Government: Any.
Societal Dev: Any.
Openness: Any.
Control: Any.
Trade: Any.
Tech: Any.
Starport: Any.
Mindscape: Any; none.

DEPOT

A major supply and maintenance centre for an instrumentality, a depot usually has a "public" section, although most of the system is off-limits.

Designation: 9+ (Commonality Member).
Population: 4-10 (Low to High Standard).
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: 7-8 (Guarded).
Control: 8 (Restricted).
Trade: Any.
Tech: T9 to T10.
Starport: A-class or higher.
Mindscape: 6-8 (Systemwide) or higher.

FAILING WORLD

A failing world is on a downward spiral to extinction. This may be due to overpopulation, underpopulation, adverse planetary conditions, disease, economic or societal collapse, or natural disaster; it may be happening swiftly or slowly. Failing worlds in the Commonality are treated or evacuated; those outside may be desperate for a solution.

Designation: 6 (Commonality Aligned) or lower.
Population: Any.
Government: Any.
Societal Dev: Any.
Openness: 4 (Self-centred) or lower.
Control: Any.
Trade: 5 (Limited) or lower, except passengers (page 206).
Tech: Any.
Starport: D-class or lower.
Mindscape: Any.

HIGH-POPULATION WORLD

The Core Worlds have many stable high-population worlds; on the Fringe, they may be suffering from rampant overpopulation. There's a tendency to view high populations as faceless homogenous masses, exacerbating difficulties.

Designation: Any.
Population: 11 (High) or higher.
Government: Any.
Societal Dev: 6 (Taxation and Representation) or higher.
Openness: Any.
Control: 7 (Surveilled) or higher.
Trade: Any.
Tech: T5 or higher.
Starport: Any.
Mindscape: Any.

HOLDOUT WORLD

A holdout world is, at least in its own mind, "waiting for rescue". It's not yet a failed world, but sees itself as waiting for contact and assistance from a greater civilisation.

Designation: 6 (Commonality Aligned) or lower.
Population: Any.
Government: 8 (Oligarchy) or lower.
Societal Dev: 10 (Widespread Intrusive Collective) or lower.
Openness: Any.
Control: Any.
Trade: Any.

Tech: T8 or lower.
Starport: E-class or lower.
Mindscape: None; or 3 (Local Node) or lower.

INDUSTRIAL WORLD

Some worlds are crucial components of the makepoint trade node complex (page 203); others are resource or production centres. Industrial worlds focus on production or manufacture as their societal drivers, but for some reason are not corporacy worlds. Perhaps they're too small, or too strategic, or require too much support or subsidy to be viable.

Designation: Any.
Population: 9-10 (High Standard) or higher.
Government: 5 (Representative) or higher; not 9-10 (Corporacy-controlled).
Societal Dev: 4 (Labour Service) or higher.
Openness: Any.
Control: Any.
Trade: Any.
Tech: T4 or higher.
Starport: B-class or lower.
Mindscape: Any.

INTERSTELLAR CIVILISATION

These are very rare; non-Commonality civilisations which have nevertheless spread to more than one world. There are three types; those which use Commonality planing engine technology with the Commonality's blessing; those which have acquired planing technology despite the Commonality embargo (usually Fringe Worlds); and those which have used slower-than-light technology. The former two types are less than 200 years old; the third may be thousands of years old, but is usually restricted to a handful of worlds.

Designation: 8 (Commonality Autonomous) or lower.
Population: 5-6 (Low Standard) or higher.
Government: 8 (Oligarchy) or lower.
Societal Dev: 6 (Taxation and Representation) or higher.
Openness: Any.
Control: Any.
Trade: 7-8 (Moderate) or higher.
Tech: T7 or higher.
Starport: E-class or higher.
Mindscape: Usually none, or 3 (Local Node) or lower; higher possible.

INTERSTELLAR HUB

The "main world" of an interstellar civilisation, usually the original lost colony founded during the Great Diaspora.

Designation: 8 (Commonality Autonomous) or lower.
Population: 11 (High) or higher.
Government: 5-8 (Representative to Oligarchy).
Societal Dev: 6 (Taxation and Representation) or higher.
Openness: Any.
Control: Any.
Trade: 9 (High Moderate) or higher.
Tech: T7 or higher.
Starport: D-class or higher.
Mindscape: Usually none, or 3 (Local Node) or lower; higher possible.

INSTRUMENTALITY HUB

An organisational centre for an instrumentality, governed by it rather than the local Pansectorate. AFI and Space Force hubs are also often depots (page 281).

Designation: 9+ (Commonality Member).
Population: 5-11 (Low Standard to High).
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: 7-8 (Guarded).
Control: 8 (Restricted).
Trade: 9 (High Moderate) or lower.
Tech: T9 or lower.
Starport: A-class or higher.
Mindscape: 6-8 (Systemwide) or lower.

PRISON PLANET

A "feature" of the Core Worlds, prison planets are usually marginal garden worlds (page 265) where unwanted or dangerous elements of the population can be housed. Given the Commonality's re-education facilities, sentence to a prison planet is almost always voluntary.

Designation: 5 (Commonality Quarantine).
Population: 4 (Low) or lower.
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: 1 (Closed).
Control: 10+ (Total).
Trade: 2- (No Trade).
Tech: T9 or lower.
Starport: E-class or lower.
Mindscape: 3 (Local Node).

QUARANTINED WORLD

Worlds may be quarantined for two reasons: to protect them from damage from the Commonality culture, or vice versa. See page 205 for more on the Commonality quarantine.

Designation: 5 (Commonality Quarantine).
Population: Any.
Government: 8 (Oligarchy) or lower.
Societal Dev: Any.
Openness: Any.
Control: Any.
Trade: Usually 2- (No Trade).
Tech: T8 or lower.
Starport: Usually E-class or lower.
Mindscape: Usually none.

The Life Cycle of a Planetary Sentience

Event horizon probes are dual eidolons housed in zero-power hull unmanned planeships. When an S1 Seed Node is established, the probe bifurcates; the planing engine half returns to Commonality Space, and the Zero or Seed Node half remains, its sentience forming the core of a nascent planetary sentience for the system's main world.

As the synth colony develops, the sentience advances, forming the core of the global and then system Mindscape, and eventually the full planetary sentience for a Commonality world. This process is the same, regardless of whether the world was originally uninhabited or a rediscovered world.

REGRESSED WORLD

A regressed world has fallen from the original lost colony Tech Index, but is not a failing world (page 281). It may have descended into savagery, and may not remember its origins.

Designation: 1-6 (Lost Colony to Commonality Aligned).
Population: 11 (High) or lower.
Government: 8 (Oligarchy) or lower.
Societal Dev: 6 (Taxation and Representation) or lower.
Openness: Any.
Control: Any.
Trade: 5 (Limited) or lower.
Tech: T6 or lower.
Starport: Usually X-class; may be U or E.
Mindscape: Usually none; or 3 (Local Node).

SEED COLONY

A seed colony is a startup colonisation effort on a world exploitable without extensive terraforming or genurgy. Corporacies establish seed colonies, as may instrumentalities for strategic reasons, usually out on the Fringe.

Designation: 8 (Commonality Autonomous) or higher.
Population: 4 (Low) or lower.
Government: 9-10 (Corporacy-controlled) or higher.
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: 7-8 (Guarded) or higher.
Control: 3 (Property) or higher.
Trade: Any.
Tech: Any; or T9.
Starport: E-class or lower.
Mindscape: 3 (Local Node) or higher.

SYNTHETIC COLONY

When the Commonality discovers a new system with basic resources which will take time to exploit, it sends in nanoscale **seeders** to establish a basic infrastructure. These have several levels, some of which correspond to the starport types on Table 13-33: Starport Facilities.

S1 Seed Nodes establish the bottom-level framework: solar (etc) powergen and an in-system control node (a synthetic mini-space station), based around the part of the initial event horizon probe that stayed in-system (the "Zero Node"). It has a sentience, core survey data, and a rudimentary Mindscape instance; its goal is to build micro-factories producing basic synthetics. The isolated and independent Seed Node Phase can take from 1-5 years.

S2 Seed Networks extend the seed node to several sub-nodes in-system, usually one around each planet or system feature. These remain under seed node control, ie there's still only one true sentience in-system. The Seed Network Phase takes from 1-5 years.

S3 Orbital Multiplicities deploy sentiences into each sub-node, creating semi-independent nodes with basic Mindscape instances. This phase takes 5-10 years.

S4 Synthports begin exploitation of the star system. Commonality citizens may begin initial cultural or colonisation assessment. Depending on the initial circumstances (degree of terraforming or genurgic manipulation required, etc), this phase may take decades if not centuries. Most synthetic colonies reach S4 quickly then stay there.

At this point, the system may be handed over to SCI Force. If not, which usually means the system was originally uninhabited, the synthetic colony develops into an **S5 Synthetic Colony,** with true cultural complexity, and joins the Commonality as a member world. The time scales for S5 development are long by synthetic standards and short by human standards. Since Rediscovery few synthetic colonies have reached S5.

Designation: 8 (Commonality Autonomous) or higher.
Population: Special.
Government: 11+ (Commonality-controlled).
Societal Dev: 12+ (Sentience Coordinated Collective).
Openness: Any.
Control: Any.
Trade: Any.

Tech: T9.
Starport: S1 to S4; or higher.
Mindscape: 4-9 (Global to Systemwide).

TECH WORLD

Tech worlds are colonised worlds which require constant technological intervention to remain habitable, and which are therefore obsessively structured around that technology, often with caste systems. Now, as rediscovered worlds, they're thriving, though often socially very turbulent.

Designation: Any.
Population: 2-14 (Sparse to Hyperdense), usually 9 (High Standard) or higher.
Government: Any.
Societal Dev: 4-12 (Labour Service to Sentience-coordinated Collective).
Openness: Any.
Control: Any.
Trade: Any.
Tech: T5 (Computer Age) or higher.
Starport: Usually D-class or higher.
Mindscape: Usually 3 (Local Node / Limited) or higher.

UNITED WORLD

A united world is a lost colony or rediscovered world which has united in a single world government. If a rediscovered world, it may be being integrated into the Commonality, but hasn't yet reached Stage Four Cultural Integrity.

Designation: Any.
Population: Any.
Government: 8 (Oligarchy) or lower.
Societal Dev: 11 (Widespread Unobtrusive Collective) or lower.
Openness: Any.
Control: Any.
Trade: Any.
Tech: Usually T7 or lower.
Starport: C-class or lower.
Mindscape: Usually none, or 5 (Global) or lower; access may be restricted.

Collaborative Map Making

Collaborative map-making can be creative, rewarding, and fun, generating great ideas. Using the Planetary Icosahedral Map Template, take it in turn as players and GM to sketch in one triangle at a time, filling in coastlines and terrain types. When you're done, fill in one civilisation detail (city, etc) each, as long as it's in a triangle created by someone else.

Planetary Maps

Planetary maps support your descriptions and provide frameworks upon which to track PC and NPC movements.

They can be as detailed or as sketchy as you like; see the icosahedral map template (page 371) for an example. The template presents a flattened view of a globe, treating a planetary surface as an unfolded interlocking series of triangles, each subdivided into hexagons (or "hexes"). The map comprises 20 triangles; its width, representing the world's circumference, is 45 hexes. Table 13-9: Planetary Size (page 256) gives approximate hex widths. To create a map, sketch the world's geographic features: seas and continents if it has liquid oceans; mountains, ice, lava, rough or broken terrain; vegetation if there's a biosphere; and cities and even a starport if the world is inhabited. Use Table 13-17: Surface Liquid Extent (page 261) to gauge how much of the world should be ocean; and Table 13-24: Population (page 270) to gauge how many cities and conurbations you need. Add names for additional colour.

CONVERTING BETWEEN WORLD PROFILES AND UWPS

Some referees may wish to use ***Traveller*** UWPs in ***Mindjammer***, and others may wish to make use of the many worlds created for ***Traveller*** and adapt them to ***Mindjammer*** world profiles. The following is a guide for converting between these two different formats.

World Profile to UWP

Converting from ***Mindjammer*** world profiles to ***Traveller*** UWPs is relatively easy.

- Find the ***Traveller*** Size listing on Table 13-9: Planetary Size.
- Find the ***Traveller*** Atmosphere rating on Table 13-13: Atmospheric Pressure.
- Check if the world is an aqueous planet. If it is not, then any ***Traveller*** Atmosphere ratings of 2-9 are automatically 10 (Exotic).
- If the ***Traveller*** Atmosphere rating is not 10 (Exotic), and the atmosphere rating is 4-9, if the Habitability DM from Table 13-21: Planetary Habitability is +0, then the atmosphere is tainted (Atmosphere 4, 7, or 9). If the Habitability DM is +1 or above, then the atmosphere is not tainted (Atmosphere 5, 7, or 8).
- Record the ***Traveller*** Temperature rating from Table 13-14: Surface Temperature.
- Record the ***Traveller*** Hydrographics rating from Table

13-17: Surface Liquid Extent.

- Record the ***Traveller*** Population Code from Table 13-24: Population.
- Record the ***Traveller*** Government Code from Table 13-25: Government Type.
- Record the ***Traveller*** Law Level from Table 13-29: Control Index.
- Record the ***Traveller*** Starport rating from Table 13-33: Starport Facilities.
- Record the ***Traveller*** Tech Level from Table 13-32: Tech Index.

UWP to World Profile

Converting from a ***Traveller*** UWP is a bit more complex.

First, record the Planetary Size, Atmospheric Pressure, Surface Liquid Extent, Population, Government Type, Control Index, Starport Facilities, and Tech Index based on the world's UWP. If the ***Traveller*** Atmosphere code is 2-9, then the world is an aqueous planet, otherwise, it is not.

- **Generate Planetary Age:** If the world has a ***Traveller*** Atmosphere code of at 2-9, then the world is at minimum 5 (Maturing); reroll any lower result.
- ***Generate Planetary Orbit:*** If the ***Traveller*** World Temperature is Boiling, and the ***Traveller*** Atmosphere code is not B (Corrosive) or C (Insidious) then the Planetary Orbit is 4-5 (Extreme Inner to Inner). If the ***Traveller*** Atmosphere rating is 9 or less and the ***Traveller*** World Temperature is Warm, then the Planetary Orbit is 6 (Habitable Zone, Inner). If the ***Traveller*** Atmosphere is 9 or less and the ***Traveller*** World Temperature is Temperate, then the Planetary Orbit is 7 (Habitable Zone). If the ***Traveller*** Atmosphere rating is 9 or less and the ***Traveller*** World Temperature is Cool, then the Planetary Orbit is 8 (Habitable Zone, Outer). If the ***Traveller*** World Temperature is Frozen, then the Planetary Orbit is 9-11 (Outer to Extreme Outer).
- **Generate Year Length:** Generate the planetary system's star, and record the planet's Year Length.
- **Generate Planetary Density:** Roll or choose anything in the range 5-11 (Low Standard to Dense).
- **Generate Surface Gravity:** Determine Surface Gravity based on Planetary Size and Density.
- **Generate Day Length:** Use the relevant Day Length DMs (page 256) to generate the Day Length.
- **Generate Surface Temperature:** Compare the ***Traveller*** World Temperature code to the various options and roll to determine the planet's Surface Temperature, discarding any result outside the range of the ***Traveller*** World Temperature.
- **Generate the Seasonality:** If the If the world has a ***Traveller*** Atmosphere rating of at 2-9, then reroll 14 (twin climates).
- **Generate Satellites:** Generate Satellites normally.
- **Determine Biosphere:** If the world has a ***Traveller*** Atmosphere code of at 2-9, then the result is automatically 11+ (Biosphere Life exists); otherwise roll normally.
- **Determine Habitability DM:** If the Traveller Atmosphere code is 11 (Corrosive), or 12 (Insidious), then the Habitability DM is automatically -2 (Hostile) or lower. If the ***Traveller*** Temperature code is Frozen or Boiling, then the Habitability DM is automatically -1 (Inimical) or lower. It the Atmosphere is 10 (Exotic), then Habitability is automatically -1 (Inimical) or lower. Otherwise, if the ***Traveller*** Atmosphere code is 5, 6, 8, 13, or 14, then Habitability is +1 (Challenging) or higher. If the ***Traveller*** Atmosphere code is 2, 3, 4, 7, or 9, then the Habitability DM is +0 (Marginal).

Table 13-35: Planetary Events Table

2D	No Biosphere, Uninhabited	No Biosphere, Inhabited	Biosphere, Uninhabited	Biosphere, Inhabited
2	Starship Encounter	Riot or Warfare	Starship Encounter	Riot or Warfare
3	Serious Storm	System Failure	Serious Storm	System Failure
4	Serious Storm	Serious Storm	Hazardous Terrain	Serious Storm
5	Hazardous Terrain	Random Encounter	Animal Encounter	Animal Encounter
6	Serious Storm	Crime	Serious Storm	Crime
7	Hazardous Terrain	Official Interaction	Animal Encounter	Official Interaction
8	Serious Storm	Random Encounter	Animal Encounter	Random Encounter
9	Hazardous Terrain	Random Encounter	Hazardous Terrain	Random Encounter
10	Natural Disaster	Social Interaction	Animal Encounter	Social Interaction
11	Natural Disaster	Natural Disaster	Natural Disaster	Natural Disaster
12	Natural Disaster	Natural Disaster	Natural Disaster	Natural Disaster

Determine Civilisation Designation, Economic Development, Openness, Trade Index, Embargo, and Mindscape Facilities normally, using the DMs from Population, Government Type, and Control Index.

Planetary Encounters

The following table can be used if you need to create a serious or potentially dangerous event which the characters must deal with when exploring an unfamiliar planet. Referees may wish to use the tables for uninhabited worlds when the characters are in remote wilderness regions on inhabited worlds. Typically, referees roll 1D per day with an event occurring on a 6.

ANIMAL ENCOUNTER

Use the animal encounter rules in the ***Traveller Core Rulebook*** (page 79). In an urban area, the characters encounter an unusual local pet or guard animal, or perhaps an animal that has escaped from a lab or a zoo. Escaped lab animals are sometimes exceedingly unusual. Animals should be created using the rules in **Chapter 15: Alien Life** (page 298).

CRIME

The characters find themselves in the midst of some type of serious crime. Options include the characters ending up in the middle of an armed robbery or an assassination attempt, witnessing local law enforcement officials pursuing fleeing suspects, or being caught up in an illegal protest or other violation of local laws regulating speech or other forms of communication. Unless the characters are obviously not involved in the crime in any way (other than perhaps as victims), once law enforcement officials arrive also apply the Official Interaction result below.

HAZARDOUS TERRAIN

The characters encounter terrain that is difficult and potentially dangerous to travel though. Options include plains of jagged and razor-sharp volcanic glass, rivers of lava flowing near the surface, thin and treacherous ice, fumaroles seeping poisonous gases, or dense and particularly deadly jungles. Reduce the movement rate on foot or in a ground vehicle by two or in some cases three speed bands (see Rough Terrain, ***Traveller Core Rulebook***, page 130). On foot, characters must make an Avoid Injury check every 1D hours, or an Avoid Vehicle Damage check if operating a ground vehicle.

- *Avoid Injury:* Routine (6+), Survival check (1D hours, DEX), failure results in 1D-1 injury.
- *Avoid Vehicle Damage:* Average (8+), Drive (track, wheel,

Table 13-36: Random Encounter

D66	Character	D66	Character
11	Customs Inspector	41	Bored Core Worlder
12	Commonality Diplomat	42	Planetary Official
13	Crooked Trader	43	Inveterate Gambler
14	Physician	44	Undercover Operative
15	Eccentric Scientist	45	Loud Zealot
16	Mercenary or Soldier	46	Corporacy Agent
21	Famous Entertainer	51	Criminal Syndicate
22	Offworld Visitor	52	Refugee
23	New Trader	53	Instrumentality Official
24	Explorer	54	Smuggler
25	Sentient Starship Avatar	55	Starport Administrator
26	Corporacy Executive	56	Mindscape Dirigeant
31	Researcher	61	Alien Ambassador
32	Cultural Attaché	62	Mindscape Hacker
33	Religious Leader	63	Gestalt Controller (page 106)
34	Conspirator	64	Roll on the Random Patron Table (***Traveller Core Rulebook***, page 88).
35	Undercover Venu Agent	65	
36	Xenomorph Activist	66	

or walker) check (1D hours, DEX), failure results in 1D damage to the vehicle.

NATURAL DISASTER

The characters are caught in an earthquake, meteor impact, mudslide, forest fire, flood, or other similar natural disaster with lasting consequences. Each character should make an Avoid Injury check to avoid suffering 1D-1 damage. Double this damage if the check results in an exceptional failure. Natural disasters typically last between 1D minutes and 1D x 10 minutes.

- *Avoid Injury:* Average (8+), Athletics (dexterity) check (1D seconds, DEX).

OFFICIAL INTERACTION

The characters encounter local officials. Roll 2D for the characters as a whole and compare this number to the planet's Control Index (page 273). If the roll is equal to or lower than this number, then the characters are subject to an ID check (see Check, ***Traveller Core Rulebook***, page 224). If the characters fail the Admin or Streetwise check to ally suspicion, use the Investigate result (same page) instead.

RANDOM ENCOUNTER

The characters encounter a particular individual. The Random Encounter Table (***Traveller Core Rulebook***, page 86) is significantly different in ***Mindjammer***, use Table 13-36: Random Encounter instead. Also, if the individual the PCs are encountering is from the world which the characters are visiting, apply the Openness Action DM, based on the world's Openness (page 273), to all social checks involving them. This individual could be a potential ally or a potential enemy, depending on both the referee's plans and the characters' actions.

The result "roll on the Random Patron table" means that the character has encountered someone who is actively seeking characters to perform a job for them. Refer to the Random Patron table on page 88 of the ***Traveller Core Rulebook***. On this table, change 24 (Minor Noble) to Zealot, 35 (Noble) to Instrumentality Operative, 42 (Free Trader) to New Trader, and 66 (Imperial Agent) to Culture Agent, but otherwise this table is unchanged. Alternately, you can make a second roll on the Random Encounters table, reroll rolls of 64, 65, and 66, and assume that this result is the potential patron.

RIOT OR WARFARE

The characters end up very near or in the middle of a large violent disturbance like a riot, revolution, or major terrorist incident. Each character should make an Avoid Injury check to avoid suffering 1D-1 damage from hurled debris, trampling, shrapnel, or other damage. Double this damage if the check results in an exceptional failure.

Electromagnetic Storms

These events consist of strong and wildly fluctuating electrical and magnetic fields. They can't directly harm organic creatures, but often easily disrupt sensitive equipment and may affect mechanicals and other similar synthetics. They are most often caused by stellar flares or by exceptionally strong lightning storms. Electromagnetic storms caused by stellar flares can affect both planets and spacecraft, but lightning storms can only affect planets. There are three types of electromagnetic storm. On some worlds, mild electromagnetic storms are relatively common and moderate electromagnetic storms are not all that uncommon. However, on the vast majority of habitable worlds, severe electromagnetic storms are impossible or at least exceptionally rare.

- ***Mild Electromagnetic Storms:*** *These storms inflict a DM-2 on all Interface (sensor) checks due to widespread interference. Mindscape contact is limited to 100 km.*
- ***Moderate Electromagnetic Storms:*** *These storms inflict a DM-4 on all Interface skill use due to widespread interference. Mindscape contact is limited to 10 km.*
- ***Severe Electromagnetic Storms:*** *Nanocells function normally, as does Mindscape use inside a building or starship designed to provide occupants with access, and personal Mindscape instances can still be used at a range of 2m. All other uses of the Interface skill are impossible due to massive interference, and outdoors Mindscape contact is reduced to, at most, 2m. Any time a drone or a mechanical synthetic receives damage that exceeds its armour during a severe electromagnetic storm, it may suffer a power surge as its shielding is disrupted. Make an Average (8+) END check: failure means the synthetic must roll on the Mindburn table (see page 75). Add the synthetic's Size (like Small (-1) or Large (+2)) to this check. Drones, which don't possess END scores, only add their Size to this check.*

- *Avoid Injury:* Average (8+), Athletics (dexterity) check (1D seconds, DEX).

Alternately, if the world or star system has an ongoing war, then the battlefront suddenly shifts and the characters are now in the middle of an active warzone.

SERIOUS STORM

The region that characters are in is affected by some sort of temporary environmental phenomena, like a thunderstorm, hurricane, blizzard, sandstorm, electromagnetic storm or radiation storm. Except for radiation and electromagnetic storms, all of these phenomena reduce visibility and mobility, and may expose unprotected individuals to extremes of temperature. Most storms inflict a base DM-1 on all skill checks, as described on page 78 of the ***Traveller Core Rulebook***.

Most serious storms last between 1D hours and 1D x 10 hours. Remember that cities and other long-term settlements on inhabited worlds are designed to handle local storms and so the inhabitants will have both warning systems and buildings will be protected from the effects of all but the very worst, and rarest, storms.

On worlds with no little or no atmosphere and no magnetic field, another option for this result is a **radiation storm**, caused by a solar flare or a nearby gas giant's fluctuating radiation belts. Roll 1D: 1-5 = A mild radiation storm exposes everyone who is unprotected to 2D x 20 rads/hour; 6 = A severe radiation storm exposes everyone who is unprotected to 1D x 100 rads/hour. Most radiation storms only last 1D hours. On worlds circling especially active stars or with very strong lightning storms, a final option for storms is an **electromagnetic storm**. Electromagnetic storms typically last 1D hours. Roll 1D: 1-4 = mild electromagnetic storm; 5-6 = moderate electromagnetic storm; 7+ = severe electromagnetic storm.

Increase all negative storm DMs by +1 if the planet's Atmospheric Pressure is High, and +2 if Very High or higher; and by +1 for each additional 1G of Surface Gravity.

For example, on a world with Atmospheric Pressure 10 (Very High), a storm will inflict a DM-3 on all skill checks. If that world also has Surface Gravity 9 (High), the total becomes DM-4.

SOCIAL INTERACTION

The characters encounter a group of locals who are potentially interested in or upset by foreigners. The characters can make a successful Carouse or Diplomat + SOC check to cause the locals to either ignore them or react positively (depending upon the characters' wishes). This check is typically Average (8+) difficulty; and adds in the civilisation's Openness Action DM (see page 274).

If the characters succeed, then the crowd reacts in the desired fashion. If this check fails, then the crowd's reaction depends upon the world's Openness. If the world has Openness 4-, then the crowd reacts with anger and xenophobia; if the world has Openness 9+, then the crowd reacts in an enthusiastically positive but problematic manner, including wishing to talk to, touch, and otherwise interact with the characters, who they find fascinating. If the characters are too strong and insistent with their rejection, an overly enthusiastic crowd can turn hostile. On worlds with Openness 5-8, either reaction is equally likely on a failed check (Roll 1D: 1-3 = Negative; 4-6 = Too Positive).

STARSHIP ENCOUNTER

The characters encounter a spacecraft which has landed or taken up orbit around the uninhabited planet they are visiting. Use the appropriate starship encounter table in "Space Encounters" (page 153), and reroll until the result makes sense for a starship which has landed or is in orbit around an uninhabited planet.

SYSTEM FAILURE

An important, large scale system used by the local civilisation has failed. Options include life support failure on any station or base which is not in a habitable environment, power blackouts, temporary Mindscape problems, including both technical problems with connectivity and large-scale hacking. Alternately, the characters may end up near or in the middle of a localised problem, like a serious urban fire, spills or leaks of dangerous chemicals or radioactive materials, or z-radiation leaks from damaged ZIP plants. Both radiation and z-radiation leaks produce 2D rads/hour. System failures are usually repaired within 1D hours, but in extreme cases may take up to 1D x 10 hours. Localised problems are usually handled within 1D hours, but may take longer, in which case they will usually be contained and everyone in the vicinity evacuated.

CHAPTER FOURTEEN
COMMONALITY SPACE

"Fifteen hundred light years, from Old Earth to the Rim. That's fifteen hundred years before you know if a star's exploded or a war's begun. How did they manage, all those millennia, before Rediscovery? No wonder they're so different from us, the lost colonies from the Core. I'm amazed we can understand one another at all."

—Yekatrina Fin-Lystra, Deputy Chief Arbitrator, Rim Sector 34th Contact Team, during a break in the Successor State Secondary Accord negotiations, 121-123 NCE.

SPACE TRAVEL

Before the advent of planing, Old Earth seeded the galaxy by slower-than-light generation and stasis ship. For ten millennia colonies were established in isolation, dependent on Old Earth for information, forced to wait years for communications to arrive.

Later, with the Mindscape, synthetic intelligences were transmitted by tightbeam, and slowships became rarer. Evolution continued to diverge, and the further the synthetics travelled, the less the colonies they found resembled Old Earth. Even then it was clear there were many colonies seeded by generation ship which did not communicate back to Old Earth, lost in the depths of space.

As the Commonality expands, everywhere it finds hitherto unknown worlds, colonised in the forgotten past. Before the Expansionary Era, the most distant world in communication with Old Earth was the strange culture beyond the Orion Nebula now known as the Venu—more than 1500 light years away—with whom there had only been four known contacts in recorded history. Commonality explorers have now established that generation ships penetrated much further; the lost colonies, when they are finally found, will likely stretch more than 10,000 light years from Old Earth, containing a vast number of inhabited systems colonised by Old Earth in antiquity and, potentially, other non-human species.

How Ubiquitous Is Faster Than-Light Travel?

During the early days of Expansion the Commonality provided planing technology to other cultures fairly freely—until the Venu attacked. Many polities possess planing technology, including Outremer, the Successor States, and the Sentient Alliance; some have travelled to the edges of Human Space and beyond—well out of the Commonality's reach.

The galaxy is a big place, and there are spacefaring alien civilisations out there—witness the Lowhigh. Although they didn't have planing technology when contacted, other species as yet undiscovered may well have. What, for example, is behind the rumours of the so-called "Pulse Dragons" dwelling in interstellar space—extremely fast-moving, high energy beings or devices which have been utterly inimical when encountered? No one knows if these are a new alien species or an ancient alien technology—or some other phenomenon entirely—but the Commonality remains watchful for the day an alien species with its own faster-than-light technology comes to call…

ASTROGRAPHY

Expansion isn't proceeding evenly in all directions. Above and below Commonality Space, stars begin to grow thin, channelling exploration along the galactic plane. There, the frontier becomes larger each year, assets more attenuated, and recently Expansion has begun to slow. On the Venu frontier a "Quarantine Zone" has been established, a no man's land many light years deep, where the Commonality is repurposing its Space Force to the principles of active defence. This chapter provides a snapshot of a dynamic, constantly changing milieu—Human Space in the year 193 of the New Commonality Era.

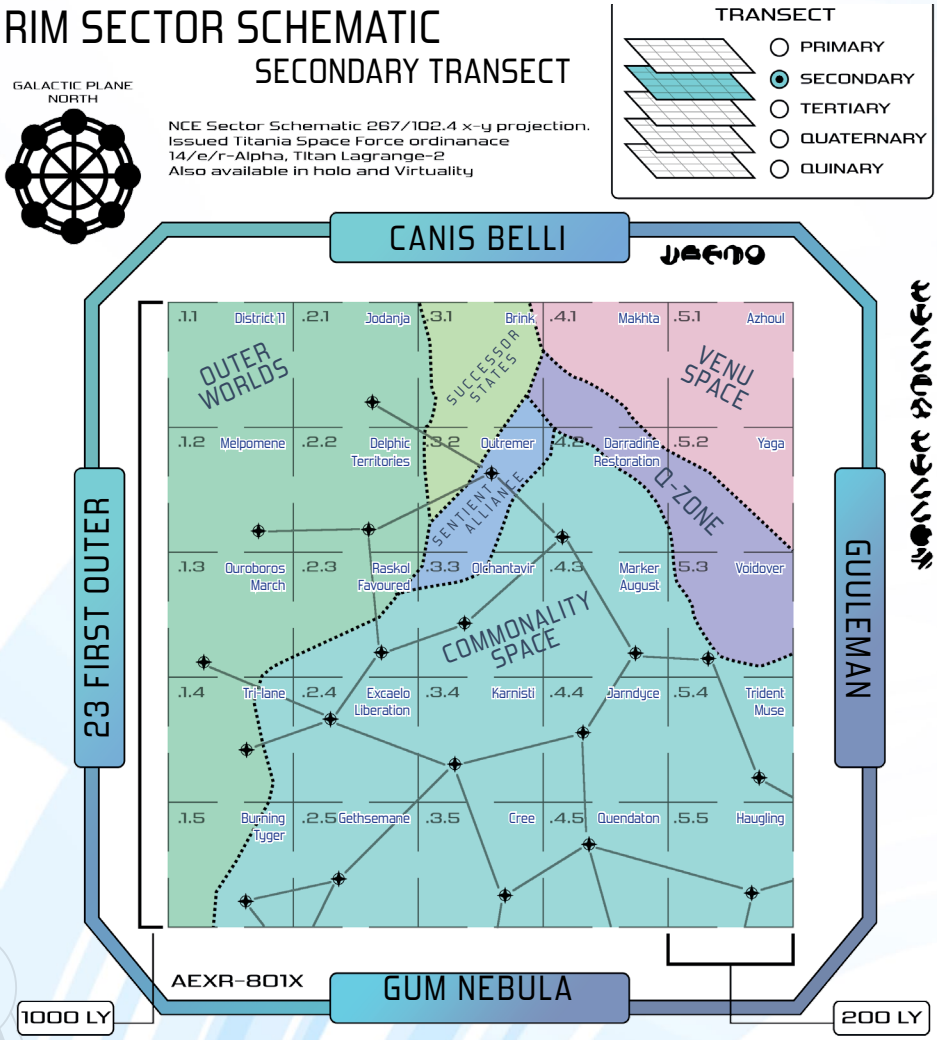
Human Space

A theorised "thick disk" of space some 20,000 light years in diameter along its widest axis, the maximum extent of slowship colonisation during the First Age of Space. Human Space contains many billions of stellar bodies.

Galactic Directions and Coordinates

The Commonality uses three-dimensional coordinates to locate stellar objects, with a reference point centred on Old Earth (at coordinates 0-0-0) and constantly updated by Mindscape; units are in light years. Bearings use a 360-degree notation along horizontal and vertical planes, aligned with the galactic plane: 180/180 indicates directly "behind" and "down".

Several popular conventions exist to supplement this system. First, two sets of compass directions can be used to refer to the vertical and horizontal planes: "North and South" indicates directly "up" the vertical plane and "behind" along the horizontal. Above and below the galactic plane are "up" and "down", and towards and away from Old Earth "in" and "out".



Making Your Own Sectors, Subsectors, and Octants

*We provide an example subsector in **Chapter 17: The Outremer Subsector**, including starmaps and detailed astrography of the Heritage Contestation octant and descriptions of its principal worlds. You can also create your own; see "Creating Starmaps" (page 246).*

Commonality Space

A spherical volume of space roughly 3000 light years in diameter, containing 27 sectors centred on the Core Worlds and marking the current extent of Expansion. Commonality Space is broken down in to a lattice of **sectors** in a 3 x 3 x 3 grid, and contains over 3000 subsectors, many only cursorily explored, and over 100 million stellar bodies. Over 100,000 worlds have either been rediscovered or settled (however lightly) to date.

Province

An informal subdivision of Human or Commonality Space up to 2000 light years across (although often less) and containing up to one or more sectors and many millions of stellar bodies. Sytar Province is a typical province.

Sector

A cubic volume of space 1000 light years in diameter, there may be as many as two thousand sectors in Human Space, and currently 27 in Commonality Space. An average sector contains four million stellar bodies and 1000-3000 known populated worlds, subdivided into 125 subsectors in a 5 x 5 x 5 grid. Each of the 5 "layers" is known as a transect, abbreviated TX, named primary, secondary, tertiary, quaternary, quinary (ie "Primary Transect" or "TX1"). The Rim Sector is a typical sector of Commonality Space.

Subsector

A cubic volume of space 200 light years in diameter, containing 32,000 stellar bodies and anywhere from zero to 100 known populated worlds, subdivided into 8 octants in a 2 x 2 x 2 grid. The central subsector in a sector is at reference TX3.3.3 of its parent sector. The Outremer Subsector is a typical subsector.

Octant

A cubic volume of space 100 light years a side, containing 4000 stellar bodies and up to 20 or so known populated worlds. Unpopulated or sparsely populated subsectors may not use this level of designation. The Heritage Contestation is a typical octant.

AN OVERVIEW OF COMMONALITY SPACE

The inside covers of this book show a schematic of Commonality Space, marking the current extent of Commonality expansion. This section discusses the principal features of that map.

Regions

THE CORE WORLDS

The Core Worlds are the "home sector" of the Commonality, centred on Old Earth and dominated by the Core Worlds culture (page 232). It contains roughly four million stellar bodies and 3000 populated worlds, at least 1000 of which are considered Core Worlds. Parts of the sector were invaded during the Venu War (110-120 NCE), and the scars are still visible.

The Core Worlds are ancient; at least 5000 years old, and most more than 10000. Some have no record of ever being colonised; there's even a minor heresy that humankind evolved on a Core World other than Old Earth and migrated there after a terrible war which devastated the planet—*The Legend of Micron Down*.

Subsector TX3.3.3 of the Core Worlds is **Home**, and contains Old Earth. Old Earth itself doesn't belong to any octant—it stands at the hub of all eight, hence is often referred to as **Hub**, as well as the more common **Manhome** (page 294).

Core Worlds society is extremely stratified, with a degree of behavioural restriction which 21st century societies would find intolerable. Religion, political discussion, and unlicensed reproduction is illegal, and most gestations are in vitro. It's a huge contrast to the freewheeling ways of the Fringe.

THE FRINGE WORLDS

The Commonality Fringe is that huge volume of space which has been added to the Commonality since Rediscovery began two centuries ago. Basically, everything that is not Core Worlds belongs to the Fringe.

Some parts of the Fringe are more settled than others; the coremost subsectors of the 26 Fringe sectors have been part of the Commonality for almost two hundred years. Out by the Commonality Frontier, though, worlds are still in the throes of Rediscovery and integration, a lively, chaotic melee.

THE OUTER WORLDS

The Outer Worlds lie beyond the Commonality Frontier—mostly uncontacted worlds within the projected area of Human Space. Event horizon probes and deep space explorers are active out here, pushing back the Frontier every day.

Astrographical Features

The Commonality Space Schematic highlights several major astrographical features.

THE NEBULAE

There are many nebulae in Commonality Space; the major ones are the Bat, Californian, Fishhook, Gum, and Orion Nebulae, and the Cygnus Loop. The Gum Nebula lends its name to a Commonality sector, with its capital at the high population world of Trand; the spectacular Orion Nebula is the gateway to the infamous Venu.

THE RIFTS

The rifts are areas of dramatically reduced stellar density, effectively empty of stars. There may be tenuous routes though some parts, but mostly you have to go round rather than through. They're known locuses of the Pulse Dragon Phenomenon, and misjumps along rift edges are usually catastrophic. The main rifts in Commonality Space are the Cyg Rift and the Vul Rift; the latter gives its name to the Vul Sector, with its capital at Jesedipere.

THE CLOUDS

The clouds are molecular clouds of varying sizes, often active stellar nurseries, but also opaque, thick with dust, and obstacles and hazards to navigation—see page 241. The main clouds in Commonality Space are the Wolf Clouds and the giant Cepheus Cloud, which gives its name to the Cepheus Sector and its dust-shrouded capital at Cepheid Ultor.

Provinces and Polities

ANTARES CODOMINION

The Antares Codominion comprises two separate polities sharing the same region of space. One, a modified version of the Commonality Pansectorate; the other, an exotic form of intelligent life composed of magnetic toruses inhabiting the photospheres of certain stars. By all appearances the Antareans have a complex and ancient "society", although so radically different in all respects that the two polities coexist without difficulty.

The Far Gate Network

*Over recent decades the new and secretive 3-Space Instrumentality has been working on the **Far Gate Project**, constructing 3-space gates at the sector capitals of Commonality Space. The lines connecting Old Earth with certain sector capitals in the Commonality Space Schematic represent this **Far Gate Network**, permitting rapid travel between Old Earth and selected sector hubs.*

Ikeba and Hajime—The Beyonders

Ikeba and Hajime are two very different worlds forged by a common spirit—the desire to "go beyond"—and are sometimes referred to as The Beyonders. They're social experiments of self proclaimed Core Worlds "dissidents" who have abandoned the Commonality to strike out on their own. Ikeba is almost a "super culture world", aiming to reproduce a specific, strong, Old Earth way of life which may not have existed in the first place; Hajime is a "transhuman paradise", where citizens can push their individual and collective boundaries. In a way, they're exaggerated bastions of certain tendencies in Commonality culture; alternatively, they're "isolated worlds" where some potentially very toxic memes are playing themselves out.

CHEMBU AUTONOMOUS REGION

The Chembu Autonomous Region is either a bright hope for the future or a nascent alien threat, depending on your perspective. The Planetary Intelligence and the Chembu hominid symbiotes control an increasingly large volume of space from the Chembu homeworld, seeding new worlds—the Sibling Intentionalities—with transformative biomes. It's a form of not only cultural but also physical assimilation; populations seem satisfied and fulfilled, and loyal to the Commonality project, although there are whispers of resistance movements on certain worlds. Farsouk is the largest apparently uncontrolled market for genurgy on the Fringe, with a wildly exotic population.

FOLIATE HIERARCHY

The Foliate Hierarchy has existed since before Rediscovery, a slower-than-light hominid culture of "terraformers" using a virulent phylum of semi-sentient and adaptable plant life analogues to spread through the marginal aqueous worlds of this sector. The motile carnivorous **Cryptomeres** are popular throughout Commonality Space, although they can rapidly overwhelm a fragile biosphere. The Foliate hominids themselves espouse a "Tree and Leaf, Root and Branch" philosophy which strays perilously close to the Commonality prohibition on religion.

LOWHIGH RADIANT

The Lowhigh Radiant is a volume criss-crossed by the lightjammers of the Lowhigh. There are many Lowhigh worlds here, radiating from the post-technological homeworld of

Shrine, whose unbelievably ancient floating henges are famous through the Commonality and largely ignored by the native Lowhigh. Rumours posit that the eternally wandering lightjammers are searching for something, or that the Lowhigh have a vast and hidden civilisation on deep space rogue worlds beyond the Commonality's reach, though as usual it's difficult to get the Lowhigh to comment.

MANHOME

Manhome is the solar system of Old Earth, capital of the Core Worlds sector and the New Commonality of Humankind. It's described in greater detail below.

MARDISTI ANOMALY

The Anomaly is one part of the sector, a volume several subsectors in extent, under heavy Commonality quarantine. Chaimatorque is the Commonality sector capital; Geenis Station sits at the edge of the Anomaly, researching. There are planets in the Anomaly, with intelligent populations, some of which appear to be human. However, no one going in ever comes out, and signals from existing planets are confused and contradictory. There appears to be a temporal instability affecting the entire region—it's theorised signals may be coming from the past, future, or both.

MAYAPUR CONFEDERATION

Unlike the Neo-Shinean culture worlds, which are spread throughout the Commonality, the Mayapur Confederation comprises the large number of Neo-Sindi culture worlds found in this sector. Individually very different and representing differing factions, regions, and periods of Old Earth's Sindi cultures, they show no signs of uniting any more closely than this loose confederation. The capital, Peshawar, was colonised early in the First Age of Space, and has experienced several diasporas of its own, seeding the key confederate worlds.

Q-ZONE

The Q-Zone or Quarantine Zone stretches across several subsectors of the Rim and Bastion sectors, separating the xenophobic Venu from worlds under Commonality protection. It's an unofficial frontier; there has been no negotiated peace since the Venu War. In some places it's up to 100 light years deep, and contains many abandoned worlds. The Commonality patrols the Q-Zone, and there is constant low-level friction with the Venu.

PI-TATL CULTURAL DISTRICT

The Pi-Tatl are a hominid species which spread widely in this area, occupying many worlds; it's theorised there was a Pi-Tatl polity during the First Age of Space. Legend says the Pi-Tatl even had FTL, though most archaeologists dispute this. No one knows their original colony world; it's said to be lost, and filled with treasure. The Commonality capital is Qipanda.

RIM SECTOR

The Rim Sector is one of the most chaotic parts of the Fringe, a hotchpotch of independent polities and Commonality and Venu client states, and the arena of constant cultural conflict. Many worlds are still rebuilding from the Venu War; others are shining beacons of Commonality expansion.

THE SENTIENT ALLIANCE

The Sentient Alliance is a Fringe World state and buffer against the Venu, a polity of highly motivated, mostly xenomorph citizens sponsored by the Commonality. It's connected to the Mindscape, and receives Commonality weapons and technological assistance. Some say the Commonality is assuaging its guilt for millennia of xenomorph mistreatment; cynics point out the Commonality is still mistreating xenomorphs in the Commonality Core.

SUCCESSOR STATES

The Successor States are a "breach" in the Venu Q-Zone, a volume where Venu and Commonality interests collide. As might be expected, it's fraught with tension and conflict. There are many client states here, from pro-Venu to pro-Commonality; hearts and minds are won and lost here every day.

SYTAR EXPANSIONARY REGION

The Sytar Expansionary Region is not a Commonality sector, but part of Sytar Province extending officially beyond the Fringe. There's a SCI Force hub at the world of Brighten, actively exploring the region; and many independent polities, in various states of integration and rediscovery, including some interstellar ones. The region was clearly a focus for colonisation during the Diaspora.

VALHALLA

Officially administered from the Lichtstrom sector capital of Strahlex, this is the homeworld of the violent hexapedal Hooyow, the alien "war monsters" (page 319). Valhalla's atmosphere is heavily tainted with chlorine, its flora and fauna notoriously poisonous; native Hooyow society lacks fire- and metals-based technologies.

VENU SPACE

From its fortress-sector of Bastion the Commonality eyes Venu Space with concern; the Venu War erupted from here a century ago without warning. The gleaming stellar nurseries of the Orion Nebula are the gateway to this chaotic region, where the Venu Empire exerts an oppressive hold over many worlds from its homeworld of Psi Orionis. There are constant rumours of Venu spies with faces stolen from Commonality citizens emerging from the nebula worlds; and others of Commonality black missions penetrating deep into Venu territory.

MANHOME

Manhome is the home of humanity, the cradle of the many human species, and the heart of the New Commonality of Humankind. Properly speaking, the name refers not just to Old Earth, but to all the inhabited planets of the Solar System. For upwards of fifteen millennia, it was the only resource available to the inhabitants of Old Earth; even the closest stars were too far to make regular resource exploitation possible. As a result, Manhome is extremely developed, and its inhabitants live more or less anywhere they can. Few other star systems evidence quite as much development, and those that do are part of the Core Worlds.

Manhome is sometimes known as **Hub**, especially when referring to its astrographical location in relation to other sectors. There are sixteen or so populated worlds, plus a number of industrial depots and other facilities, described below.

Old Earth

Old Earth is the birthplace of humankind itself; Terra, Mother Earth, the Jewel of the Commonality. A beautiful blue-green world, it has undone much of the environmental damage sustained over the millennia, and since the beginning of the Expansionary Era has experienced a decline in population. It is, however, still very densely populated, with most people living in vast arcologies on both land and, particularly, in the sea. A percentage of native Old Earthers are even aquatic.

Old Earth is vastly changed from the 21st century. Our century is so far in the past that nothing remains, except perhaps for nebulous prehistoric relics which are lumped together with other vestiges such as Henge, the Orion Mounds, the Long Wall, the Pylons of Atlan, the Moskeye Craters, Lake Honnyo, and Toltec Tower. It's the location of Jiva—the seat of the Council of Humankind.

Old Earth is divided into seven **heartlands**: Shine, Yoosa, Yarp, Zan-Yan, Strylia, Danasi, and Talis-Qualis (aka Old South America).

SHINE

The Commonality began in Shine, after the Glaciation, and the Old Country still exerts a powerful influence over the Commonality and particularly the Core Worlds. These days it still considers itself the centre of the universe (most heartlands do), but in many ways it's the most navel-gazing of all, eternally wrapped up in its own affairs. The metroplexes of Shang, Jing, and Dao are still among the most energetic arcologies on the planet.

YOOSA

Apparently the heart of a prehistoric Age of Space, Yoosa was devastated by wars and other cataclysms which preceded the Glaciation. At the time of Shine and the rise of the First Commonality, Yoosa was largely a wilderness inhabited by scattered tribes. These days it still enjoys a reputation for individualism and ruggedness, and perhaps is the most outward-looking of the heartlands. The principle arcologies of modern-day Yoosa include: Anyark, Safrales, Saygaining, Fee-Riser, Albycook, Old King, and Monthell.

Food

*Although many areas of Old Earth maintain traditional food production, most is produced by makepoint, in great diversity. The **synthegens** are one such staple—Synthegen Alpha and Beta are holdovers from pre-makepoint food synthesis days—and are wildly popular. They have vintages, different tastes and textures, and passionate followers and connoisseurs.*

YARP

Location of Jiva and largely a lightly-populated archipelago these days, apart from the arcologies of Lond, Jiva, Mosshawk, Karka, and Padua, each of which hold more than a hundred million people. Southeast of Yarp lie the Glasslands of Izranal, one of the most inhospitable deserts on Old Earth. Unlike other glasslands, it has been left largely untouched as a memorial; it contains the Cratered Plain, location of the Monument to War, and is the dwelling place of the Ahelots, a primitive people who are forbidden from leaving, although anyone may choose to join. Izranal is off-limits to all, except for certain highly controlled visits.

ZAN-YAN

Zan-Yan was relatively untouched by the Glaciation and Dark Age, and contains some of the oldest and most extensive prehistoric ruins in the Commonality, including the Orion Mounds and the undersea ruins of Table City. These days it's a carefully maintained paradise—a vast garden of restored flora and fauna and enhanced (and sometimes xenomorph) Gardener communities. People with "Zan-Yan Hands" can make anything grow…

STRYLIA

Perhaps the last true wilderness on Old Earth, Strylia is divided into the shining arcologies and verdant pasturelands of its coasts and the parched ochre wastelands of its "Outback". The Terragrond continues to resist calls to incorporate Strylia's arid regions beneath the aegis of Global Climate Control.

TALIS-QUALIS

Talis-Qualis has a reputation for mysteries, and producing

MANHOME SYSTEM SCHEMATIC

SYSTEM NAME:	Manhome	CIVILISATION:	Commonality Hub	DESIGNATION:	Commonality Member
STARPORT:	A5-class	POPULATION:	Hyperdense	MINDSCAPE:	Mindscape Nexus

NAME	PLANETARY TYPE		BASIC CONCEPT
Tyche	Y-class companion star	EXTREME OUTER (x40) 1/5ly	Dark and distant secondary solar system.
Sedna	Dwarf planet	400	Eccentric orbit, aquatic population.
Pluto	Dwarf planet	39	Eccentric orbit, frozen atmosphere.
Saturn	Gas giant	OUTER (x10) 9	Manhome civilian and Space Force depot.
Titan	Terrestrial (moon)	9	Slowform embassy, Dodecahedron CORESPAN HQ.
The Protectorate	Oceanworld (moon)	9	Native biosphere off-limits to all but mechanicals.
Jupiter	Gas giant	OUTER (x5) 5	Jovian gas mines.
Io Station	Terrestrial (moon)	5	The Manhome Gate.
Cetacea	Oceanworld (moon)	5	Xenomorph aquatic population.
Ceres	Dwarf planet	OUTER (x1.5) 2.7	Manhome industrial centre, mostly mechanical population.
Old Mars	Standard garden world	H ZONE OUTER (x1.5) 1.5	Restored t-congruent biosphere, proud and ancient world.
Old Earth	Superior garden world	HABITABLE ZONE (x1.0) 1	Heart of the Commonality, cradle of Humankind.
Troy	Plateworld	1	Oldest pseudo-planet in Commonality Space.
Inferno	Inferior garden world	H ZONE INNER (x0.7) 0.7	Torrid primaeval terraformed world.
Mercury	Inferno	INNER (x0.4) 0.4	Refined and semi-refined products, hazmat synthetics world.

NAME	STELLAR BODY TYPE		BASIC CONCEPT
Sol	G-class main sequence	PRIMARY	The original Sun, mature system primary.

2D	SYSTEM EVENTS
2	Magnetic storm
3	Short-term requisition or commandeering
4	Fargate-1 traffic control
5	Manhome customs boat
6	Core Worlds starship encounter
7	Core Worlds starship encounter
8	Core Worlds starship encounter
9	Star City / Plateworld / Hab
10	Bureaucratic interference from nearest world
11	Passenger transfer request
12	Stellar flare

H-ZONE ORBITAL DISTANCE	TRADE INDEX	CONTROL INDEX
1.0	7 (Moderate)	9 (Repressive)

SKY COLOUR

Blue

RESOURCES AND OTHER NOTES

Traditional networks of supply and demand.

Conservative Self-centred tastes.

Hidden markets, secret deals.

The Orbital Habs of Manhome

Manhome has the greatest density of plateworlds and orbital habs in Commonality Space, due to its long history as the capital of a slower-than-light interstellar polity. Some of these date back to the Shine Commonality, and are important archaeological relics in their own right, with the oldest contiguous memories of any person in the Commonality

poets and philosophers. Rentgeneca, its most famous, called it "the Conscience of Humankind". Terrible things were done here, and every settlement has its monument to the fallen. The spires of the Yukata Bridge Conurbation at its northern tip, which links Talis-Qualis with the southern Yoosan archipelago, are famed throughout the Commonality.

DANASI

Danasi still has the reputation for being a "new land", even though it's been over ten millennia since the ice caps disappeared. It's now a continent of deep forests and towering mountains, of eternal night and endless sun, and also the greatest concentration of aquatics on the planet; the Danasi Seafarms still provide a significant percentage of Old Earth's food. The Parsifal Range is the site of the mysterious Telike "ruins", which may be a natural formation, dating back many millions of years.

EARTHPORT

Old Earth's only spaceport and gateway of entry to and from the planet. It links to the surface via Terra Tower, a conveyor at the Anchorage metroplex in Zan-Yan.

COLA STATION

The secretive palatial home of the Terragrond, the Old Earth custodial council, orbits in this most ancient of relics. Old Earth is unique in the Commonality in not only having its own custodian (no other planet has that privilege), but actually having five.

GREEN MOON

Green Moon is a jewel in Old Earth's skies, sometimes known as the "Eighth Heartland". It was terraformed during the first millennia of the Great Diaspora; together with Old Mars, it's one of the few worlds to have gravity engines—engineering projects which took centuries to implement—and now has its own atmosphere and (unlike Old Mars) an entirely imported biosphere. Its capital at Tranquillity still has its Lunar Quarter, including the prehistoric habitats from when before the moon was green.

Mercury Depot

The closest natural satellite to the sun is the location of the See-Say industrial depot, the main producer of plasteel, glassteel, and other refined and semi-refined products in Manhome. It's notable for its majority population of hazmat synthetics, including the poet-musician Arquebus, author of the epic Sunstalker Sequence.

Inferno

Once known as Venus, Inferno is a torrid terraformed world of primaeval environments, genurgically modified plantlife, and the gargantuan **mudworms**. Its inhabitants are mostly high endurance organics who call themselves **infernals**; the world is renowned for its cutting-edge genurgy and extensive wilderness.

Troy

An intelligent plateworld also known as "The Dish", Troy was the first constructed pseudo-planet—a small section of a ringworld with artificial gravity, self-built and self-sustaining. It's still growing via makepoint, although Trojan plateworlds pretty much became obsolete following Expansion. Its capital, Lutetia, is known for its formal gravity gardens.

Old Mars

Old Mars is one of the most important worlds of Manhome, second only to Old Earth. Terraformed thousands of years ago during the First Age of Space, like the Green Moon it has gravity generators, and an artificial intelligent moon-mass called Dnabot Station, home to a population of very high-G "flattened" synthetics. There are prehistoric legends that Old Mars once had its own moon, or perhaps even moons.

The Martian ecosystem comprises species restored from Martian DNA and microbes and the Martian fossil record. Martian citizens are proud of their reputation for ruggedness. The

Panspermia and Manhome

*Exploration of the Manhome biospheres provided the first early proof of the reality of **panspermia** (page 298). All the solar system worlds share common genetic material, as does Proxima, the nearest of the Core Worlds, and possibly several other candidate worlds. Other neighbouring Core World biospheres, however, do not seem to derive from the same genetic flow; palaeogenological maps of the near-Manhome region are complex to say the least.*

The Manhome Gate

*The Manhome far gate, also known as **Fargate-1**, is the hub of the Commonality 3-space network, connecting to every other sector capital and Core World gate currently in operation. Lying between Jupiter and the Belt, it's the only authorised entry point into the system, a constant stream of millions of vessels to and from every corner of the Commonality. More traffic is added each year, and there's already talk about constructing a second bypass gate exclusively for Core Worlds connections. Sometimes ships have to queue for days for a connection.*

coastal city of Syrtis is famous for its tomb-monument to Aiko Hero and Jason America, the "Old Queen and King of Mars".

Ceres

If See-Say depot specialises in glassteel and plasteel industries, Ceres—capital of the Manhome Belt—dwarfs it by its coverage. It's Manhome's main pan-industrial centre, a verdant hab in its own right, despite the fact that the Ceres and Belt populations are overwhelmingly mechanical.

Cetacea

One of the Jovian moons, an underwater world populated by cetaceans, octopoids, cephalopods, and modified humans, Cetacea once had its own native biosphere, which perished due to Old Earth contamination in the theorised Prehistoric Age of Space; there are ruins here of both terrestrial and apparently indigenous nature. There's a mystical movement trying to fathom the secrets of Cetacea; verging on the religious, it's in danger of being declared illegal.

Io Station

A secondary industrial depot to See-Say, Io Station services the Jovian worlds and the Manhome Gate.

Jovian Gas Mines

The economic underpinning for the Jovian helium-3 and hydrogen gas mines has been destroyed by the invention of makepoints and ZIP cell technology. Its ancient industrial activities are currently under Manhome command, but the mines are in crisis, and their population is dropping every year.

The Protectorate

Also known as Enceladus, one of the moons of the Saturn subsystem, the Protectorate escaped the environmental destruction which befell Cetacea. Even now, only mechanicals are allowed under the ice. There's an extensive native biosphere here, including one species apparently in a post-intelligent state.

Saturn Depot

Saturn depot is Manhome's major shipyard, with civilian and Space Force facilities criss-crossing the whole Saturn subsystem.

Titan

There's evidence that there has been an Old Earth "embassy" at Titan for over ten thousand years, although interaction with its native flyers are glacially slow and fragmentary at best; it's now generally agreed that the **slowforms** are not conventionally intelligent at all. Oberon Station remains in orbit to handle ongoing research and "contact" efforts.

Titan orbit is also the location of the **Dodecahedron**, the Core Worlds Pansectorate (CORESPAN) headquarters (page 199), which accounts for most of the world's traffic.

Sedna

The dwarf planet of Sedna has an extreme eccentric, 11400-year orbit, spending most of its time outside Manhome's heliopause. It's currently 400AU from the Sun, and still receding. Its subsurface ocean has a dense Core Worlds population, in relative isolation from Manhome proper.

Tyche

The Sun's distant Y-class companion, Tyche is a cold magenta brown dwarf, smouldering eternally on the farthest edges of the solar system, currently about a fifth of a light year away between the Kuiper Belt and Oort Cloud, usually reached from Manhome by planing engine. It has been settled for millennia, Old Earth's first and oldest "colony", although it's not officially a separate world at all. Roughly Jupiter-sized with its own miniature "solar system" of moons, it's very, very dark; natives of the Tychean worlds are enhanced to see in the infrared. There are a billion of them, spread over several worlds, including: Amalthea, Demeter, Iasion, Orontes, Ploutus, and Palamedes Station, Tyche's principal orbital starport and depot. The 3SI are currently building an experimental 3-space micro-gate in orbit around Tyche. Like Sedna, Tyche is a bastion of old Core Worlds culture, relatively unchanged since before Rediscovery.

CHAPTER FIFTEEN
ALIEN LIFE

"Time and the arrow
Thought the mud-children follow;
The universe laughs."

—Third Catechism of the Planetary Intelligence

Alien life is everywhere. Much of it is so alien that it has little interaction with humankind, except as a subject of research; most "alien" contact within the Commonality is with divergent or modified variants of homo sapiens and other terrestrial species. There are exceptions. The Planetary Intelligence, Lowhigh, and Hooyow are **exointelligences**—alien life forms—which share many evolutionary adaptations with humankind. So many, in fact, that some theorise a common ancestor or creator, such as **panspermia** or the **Predecessor hypothesis.**

This chapter lets you describe a **biosphere**, including statistics and descriptions of ecosystems and the life forms—the **exofauna** and **exointelligences**—which inhabit them. The "Exploration Missions" textboxes (see pages 312 and 313) present rules for investigating lifeforms. The rules in this chapter are designed to add to and expand upon the rules for animals and animal encounters in the ***Traveller Core Rulebook*** (pages 79-85).

Panspermia

Even at a fundamental level life can travel between stars. Its building blocks can evolve in molecular clouds and travel through interstellar space, seeding biospheres. Those in close proximity (a few tens of light years) may share paradigms and even body plans; there are currents of life in space the Commonality is only now becoming aware of.

WHAT IS LIFE?

Life is an emergent property of the universe. Given enough time, life arises almost everywhere, using strategies, forms, and chemistries often hugely different from the carbon- and water-based life of Old Earth. Life is found in self-replicating magnetic toruses in the atmospheres of stars, and in slow-moving hydrocarbons in deep space molecular clouds. The very concept of "habitable zones" is humanocentric: life arises in more environments than those favourable to humankind. All life shares three common features:

Self-replicators

DNA is Old Earth's self-replicator; the way life reproduces itself at a molecular level. Alien life forms do not have DNA, although they have something fulfilling the same function. Given the building blocks of life, self-replicators may evolve rapidly, even on young worlds.

Energy Curve

Life requires energy; more specifically, differential reactions which extract energy from a system—the **energy curve**. Life forms use these reactions to build bodies, absorbing energy and materials processed by their **metabolisms** (page 301).

Solvents

Energy curve reactions require a medium in which to occur: a **solvent**. A popular solvent is liquid water, but there are others, depending on temperature, atmospheric pressure, and available chemistry. Ammonia, hydrocarbons, hydrofluoric acid, liquid nitrogen, even hydrogen can be solvents under the right conditions. Solvents needn't be liquids; dispersed interstellar gases can be very slow solvents, and plasmas and magnetic fields in stellar photospheres can be lightning fast ones.

THE BIOSPHERE CONCEPT

Environments where self-replicator, energy curve, and solvent have coincided to evolve life are known as **biospheres**. At its simplest, a biosphere is described by a **Biosphere Concept**, combining the key features of self-replicator, energy curve, and solvent with the **Paradigm** below.

Habitability

Habitability is a humanocentric concept. For a biosphere to be properly habitable, it must share self-replicator, energy curve, and solvent with Old Earth. Usually this is impossible naturally, although **t-analogue biospheres** (below) come close. Instead, the Commonality genurgically modifies biospheres to be more hospitable to humankind. The habitability of an alien biosphere and the nature of its self replicators, energy curves, and solvent form its **Paradigm**.

The Seven Paradigms of Alien Life

To create a biosphere concept, start by determining its **Paradigm**. You can expand on a Paradigm later to determine a world's **ecosystem**. Roll 2D or choose an entry on Table 15-1: Biosphere Paradigm, applying the **Habitability DM** from page 262.

PARADIGM 1: MAINTAINED

An artificial biosphere used for food production using ponics and artificial farm habs. It's found where a Commonality world or (rarely) a lost colony exists on an otherwise inhospitable planet, where makepoints don't meet all food and water requirements.

Example Life Form Concepts: *Fish Shoals Swimming in the Habitat Shield Tanks; Lattice Cube Ponics Farms Green With Vegetation.*

PARADIGM 2: TRANSPLANT

Life forms transplanted from Old Earth; common on Terraformed worlds in the Core, and also at basic levels in seed

Table 15-1: Biosphere Paradigm				
2D	**Unsettled World**	**Lost Colony World**	**Commonality World (ex-unsettled)**	**Core World**
2-3	Exotic	Alternate	Exotic	T-analogue
4	Exotic	T-analogue	Parallel	T-analogue
5	Parallel	T-analogue	Alternate	T-analogue
6	Parallel	T-analogue	T-analogue	T-congruent
7	Alternate	T-analogue	T-analogue	T-congruent
8	Alternate	T-congruent	T-congruent	T-congruent
9	Alternate	T-congruent	T-congruent	Transplant
10	T-analogue	T-congruent	Transplant	Transplant
11 -12	T-analogue	Transplant	Transplant	Transplant

colonies where environments are easily adjusted.

Example Life Form Concepts: *Teeming Aurochs Herds Under an Alien Sky; The Vineyards of Deschamps.*

PARADIGM 3: T-CONGRUENT

Native life forms—exofauna and exoflora—are genurgically modified to be compatible with Old Earth biochemistry, making them edible to humans, and able to survive in the same environments. Relatively common in the Core, this is the Commonality's preferred approach on worlds otherwise attractive for colonisation.

Example Life Form Concepts: *Blueforest Farmlands; Digger Wolves and Jump Sheep.*

PARADIGM 4: T-ANALOGUE

The biosphere starts to look "alien"; life uses a different chemistry that is still based on carbon, liquid water, and oxygen. The environment may look relatively Earthlike, with plant and animal analogues, but is incompatible in important ways. Life forms don't have DNA and can't be metabolised (ie eaten); or may have similar amino acids and sugars and even DNA (indicating a common origin with terrestrial life), but different chirality renders them inedible. On t-analogue lost colony worlds, people have three options. They may have been adapted to the environment as hominids, they might undertake complex food processing, or they must maintain a separate sub-environment.

Example Life Form Concepts: *Otherworldly Predators Eat You All the Same; Tall Majestic Hominids Following the Spring-batsu Migrations.*

PARADIGM 5: ALTERNATE

The biosphere is still carbon-based, but chemistry, metabolisms, body plans, and most other details, are radically different. The biosphere uses different amino acids and proteins (maybe selenium or tellurium instead of sulphur), or metal skeleton analogues at high ambient temperatures (above 300 degrees C); or sulphur metabolisms instead of oxygen, filling the atmosphere with hydrogen sulphide. Coldworld biospheres may have slow metabolic rates, and life forms may be unable to interact with humans without artificial acceleration.

Example Life Form Concepts: *Hundred-limbed Swim Sacs in the Cold Methane Ocean; Metal-based Hexapods With Lightning Fast Claws.*

PARADIGM 6: PARALLEL

The biosphere is no longer based on hydrogen, carbon and water, but uses an entirely different chemistry. Life forms may use oxocarbon or silicon instead of hydrocarbons; liquids other than water; metal oxides of iron, magnesium, titanium at very high temperatures; or radically different chemistries in gas giant atmospheres or cores.

Example Life Form Concepts: *Blimp-like Floaters in a Gas Giant Atmospheric Ocean, Basking in Radiation; Exofauna With Molten Blood and Oxide Bones on an Inner System Lava World.*

PARADIGM 7: EXOTIC

Exotic biospheres are so alien that explorers may have difficulty even recognising life forms, instead deducing them from anomalous energy readings or chemical reactions. They may involve self-replicating magnetic or plasma-dust fields in molecular clouds or stellar photospheres; or subatomic particle assemblies grazing complex gravities on the surfaces of neutron stars. Exotic life forms often seem incorporeal from the human perspective.

Example Life Form Concepts: *Deep Space Magnetic Field Ramjet Grazers; Dispersed Gas Cloud Radio Mind; Living Vortices in the Rock; Natural Robot; Quantum Wave Function Life Form.*

PRODUCING THE BIOSPHERE CONCEPT

Combine the Paradigm with any salient features from the world, or the biosphere's self-replicator, energy curve, or solvent to produce your **Biosphere Concept**.

- *T-Analogue Biosphere on a Marginal Desert World*
- *Exotic Biosphere Based on Magnetic Field Replicator*

A Biosphere Concept may be all you need when describing a world. Use it to describe life forms when PCs visit or investigate the world.

Table 15-2: Biodiversity		
2D	**Biodiversity**	**Comments**
1 or lower	No Biodiversity	Ecosystem has 1 body plan and 1 environmental characteristic.
2-3	Very Low	Ecosystem has 1 motile and 1 sessile body plan, and 1 environmental characteristic.
4-5	Low	1 sessile, 1 primary motile, and 1 very rare secondary motile. Ecosystem only has 2 environmental characteristics.
6-7	Standard	Use rules as written, 1 sessile, 1 primary motile, and 1 secondary motile. Choose 3 environmental characteristics.
8-9	High	Ecocsystem has 1 sessile, 1 primary motile, and 2-3 secondary motiles. Ecosystem has 4-6 environmental characteristics.
10-11	Very High	Ecosystem has double the number of sessiles and primary motiles, and many secondary motiles.
12+	Extreme	The world has 2 or more co-existing ecosystems.

CREATING AN ECOSYSTEM

For more detail, expand a Biosphere Concept to create an **ecosystem**. A consistent and logical ecosystem helps you create detailed life forms later. This section explains how to create ecosystems, describing **ecosystem characteristics** and providing examples of several **Ecosystem Types**.

ECOSYSTEM CHARACTERISTICS

1. Biodiversity

The diversity of life forms, body plans, and environmental characteristics in a biosphere. Roll 2D or select an entry on Table 15-2: Biodiversity, applying the Biodiversity DM from Table 13-5: Planetary Age (page 254).

2. Paradigm

Generate the ecosystem's Paradigm as shown on page 299. In cases of Extreme Biodiversity, roll Paradigm twice; if the same Paradigm results, the world has two ecosystems sharing the same Paradigm.

Table 15-3: Paradigm Metabolism DM	
Paradigm	**Primary Energy Source DM**
Maintained, Transplant, T-Congruent	Photosynthesis (do not roll).
T-Analogue	-2
Alternate	-1
Parallel	+2
Exotic	+5

Time and Subjectivity

A life form's metabolism indicates how it experiences time. Extreme cold world life forms may move and experience time extremely slowly, so that humans and similar life forms seem hot and fast-moving, perhaps even ephemeral and hardly noticed. The opposite applies in hotworld or highly energetic ecosystems like photospheres, where life forms may exist at greatly accelerated rates to humans.

If you think this is a factor in your ecosystem, incorporate it into your metabolic bases description in play. See also "Temporality" (page 317).

3. Metabolic Bases

Metabolic Bases indicate where life forms in an ecosystem get their energy. There are usually two; the **primary energy source** which the lowest food chain life forms (usually sessile) exploit, and the **secondary metaboliser material**, usually the material

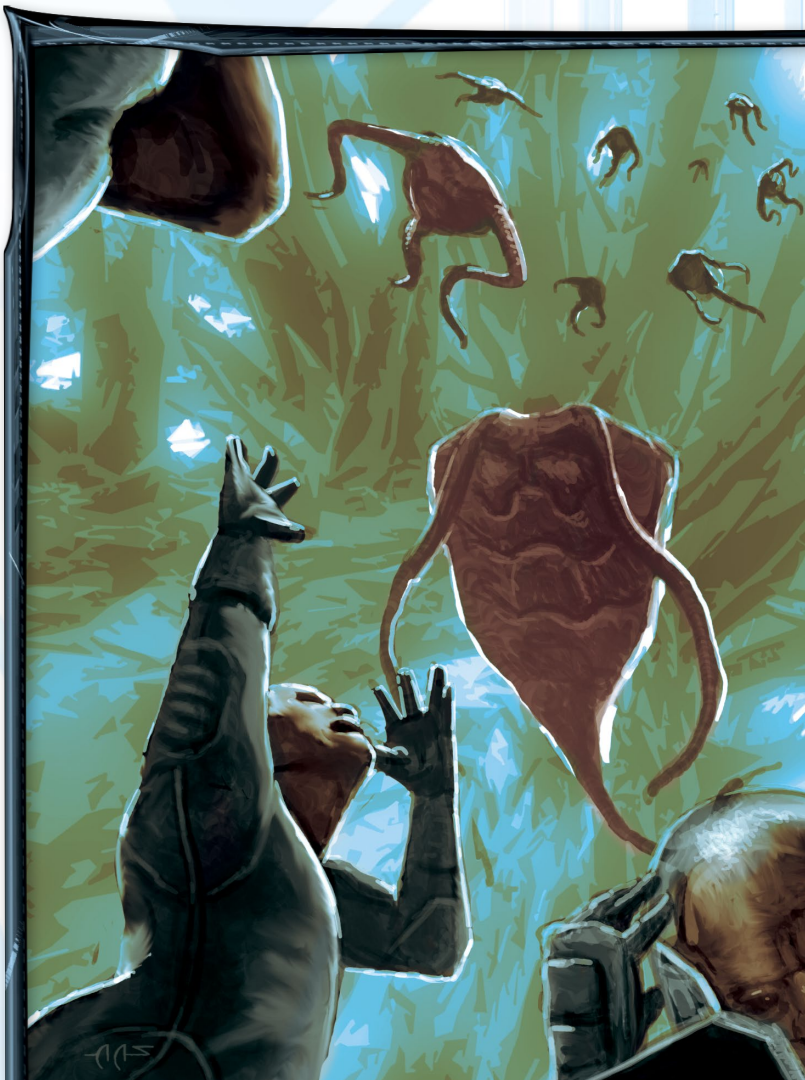


Table 15-4: Primary Energy Source

2D	Energy Source	Comments
0 or lower	Electrosynthesis	Conversion of building blocks using piezoelectricity, etc.
1-2	Thermosynthesis	Conversion via temperature gradient, tidal heating, etc.
3-5	Chemosynthesis	Conversion using chemical reations of inorganic materials.
6-9	Photosynthesis	Conversion using starlight.
10	Thermosynthesis	As above.
11	Electrosynthesis	As above.
12	Radiosynthesis	Using radiation to power conversion; similar to photosynthesis.
13-14	Magnetosynthesis	Conversion using solar wind, variable magnetic fields.
15+	Gravitosynthesis	Conversion using gravity, very rapid changes in the strong nuclear force chemistry in degenerate matter, etc.

the life forms' bodies are made of, eaten by life forms further up the food chain. Roll 2D or pick an entry on Table 15-4: Primary Energy Source, applying the DM from Table 15-3: Paradigm Metabolism DM. The **secondary metaboliser** feeds off the primary metaboliser's body, which depends on the **Paradigm**; see Table 15-5: Secondary Metaboliser Material.

4. Body Plan

A life form's **Body Plan** indicates its physical structure; the number and nature of any limbs, the shape and layout of its body. Some Body Plans are **motile** (able to move) and some are **sessile** (unable to move). Worms, lichens, octopi, trees, and humans are all terrestrial life forms with differing Body Plans. Some life forms may progress through more than one Body Plan in their lives. Many Body Plans may co-exist in an ecosystem, but usually a small number predominate. By default when you create an ecosystem, create three Body Plans: one **primary sessile,** one **primary motile**, and one **secondary motile**.

The primary sessile Body Plan accounts for the majority of plant analogues; the primary motile accounts for most animal analogues; and the secondary motile accounts for alternate life forms like creepy-crawlies, creatures in marginal environments, and archaic holdovers. More or less biodiverse ecosystems have more or fewer Body Plans. Define a Body Plan in 5 steps:

Table 15-6: Additional Life Form Size Categories

Hits	Trait	Damage	Lifeform or Comparison
None	Small (-7)	None	Atomic/subatomic/quantum-scale entity.
Trivial	Small (-6)	None	Amoeba.
1	Small (-5)	None	Fly or gnat.
126 -150	Large (+6)	7D	Sauropod or Whale.
151-250	Large (+7)	9D	Largest Giant Redwood (1000 tons).
251-500	Large (+8)	13D	Nautilus Manowar (100,000 tons)*
501-1000	Large (+9)	18D	Small Mountain (10 million tons)*

**Only creatures with parallel or exotic biochemistries are likely to become this large.*

Larger and Smaller Life Forms

Life forms in **Mindjammer** *use the same size categories as animals in the* **Traveller Core Rulebook** *(page 81), but with several additional new size categories described in Table 15-6: Additional Life Form Size Categories.*

Table 15-5: Secondary Metaboliser Material

Paradigm	Primary Metaboliser body made of…	Comments
1 (Maintained)	Hydrocarbons (cellulose, flesh and blood)	Can be eaten by humans, and can eat them, too.
2 (Transplant)	Hydrocarbons (cellulose, flesh and blood)	Can be eaten by humans, and can eat them, too.
3 (T-Congruent)	Hydrocarbons (cellulose, flesh and blood)	Must be processed to be eaten; will see humans as prey.
4 (T-Analogue)	Hydrocarbons (cellulose, flesh and blood analogues)	Cannot be eaten; may perceive humans as a threat.
5 (Alternate)	Hydrocarbon alternatives (metal skeletons on hot worlds, natural plastics or mineral oxides).	Humans and life forms do not perceive one another as predators / prey, but instinctive behaviours may still apply.
6 (Parallel)	Oxocarbons, silicons, metal oxides, acids.	Humans and life forms may not recognise one another as alive.
7 (Exotic)	Magnetic fields, plasma, gases, subatomic particles.	Humans and life forms are unlikely to even perceive one another.

Table 15-7: Maximum Average Size

Roll 2D-7 + DMs	Terrestrial (Paradigms 1-4)	Alternate	Parallel	Exotic
-3 or lower	Small (-5)	Large (+7)	Large (+9)	Large (+9)
-2 to -1	Small (-5)	Large (+6)	Large (+8)	Large (+8)
0-1	Small (-4)	Large (+5)	Large (+7)	Large (+7)
2-3	Small (-3)	Large (+4)	Large (+6)	Large (+6)
4	Small (-2)	Large (+3)	Large (+4)	Large (+4)
5	Small (-1)	Large (+2)	Large (+2)	Large (+2)
6	Medium (+0)	Large (+1)	Medium (+0)	Medium (+0)
7	Medium (+0)	Medium (+0)	Medium (+0)	Medium (+0)
8	Medium (+0)	Large (+1)	Medium (+0)	Medium (+0)
9	Large (+1)	Large (+2)	Large (+3)	Small (-2)
10	Large (+3)	Large (+3)	Large (+5)	Small (-3)
11	Large (+5)	Large (+4)	Large (+7)	Small (-4)
12	Large (+7)	Large (+5)	Large (+6)	Small (-5)
13	Large (+5)	Large (+6)	Large (+4)	Small (-6)
14	Large (+3)	Large (+7)	Large (+2)	Small (-7)
15	Large (+1)	Large (+5)	Large (+1)	Small (-5)*
16	Small (-1)	Large (+3)	Small (-1)	Small (-2)
17	Small (-3)	Large (+1)	Small (-2)	Large (+1)
18	Small (-4)	Medium (+0)	Small (-4)	Large (+4)
19	Small (-5)	Small (-1)	Small (-5)	Large (+7)
20	Small (-6)	Small (-3)	Small (-6)	Large (+8)
21	Small (-7)	Small (-5)	Small (-7)	Large (+9)

**indicates a "phase shift" in the life form's paradigm; from here on it begins to be composed of "fields" rather than atoms.*

I. DETERMINE AVERAGE SIZE

The Average Size of a life form with this body plan depends on the Paradigm and the world's Gravity Rating (page 256). For terrestrial or analogous life forms, a higher gravity implies a denser atmosphere and a greater availability of essential chemicals, and therefore a larger size. Eventually, however, gravity causes the size to contract. For non-analogous biospheres, gravity is dominant; lower gravity exotic biospheres have larger life forms, higher gravity biospheres have smaller ones. Roll 2D-7 and add the planet's Gravity Rating, or select an entry on Table 15-7: Maximum Average Size. Note this table addresses larger life forms which interact with characters, rather than the biosphere's potentially countless microscopic ones.

Table 15-8: Body Plan Symmetry

Roll 2D	Symmetry	Comments
2-3	Asymmetry	No symmetry
4-6	Bilateral Symmetry	Even number of limbs
7	Radial Symmetry	Circular creature
8-10	Biradial Symmetry	Even number of limbs
11-12	Spherical Symmetry	No limbs, or more than 6

II. DETERMINE SYMMETRY

Symmetry is a Body Plan's organising principle; whether it has two limbs, no regular shape, is roughly circular or spherical, etc. Roll 2D or select an entry on Table 15-8: Body Plan Symmetry.

NOTES

Asymmetry: Life forms have no symmetry. They may be mildly asymmetrical, with a loose symmetry, or have a wildly irregular body plan.

Bilateral Symmetry: Life forms can be divided into two identical halves along a single plane. They have "directionality", ie move in a specific direction, have a top and bottom, sensor clusters (a head) at one end, and so on.

Biradial Symmetry: A combination of radial and bilateral symmetry, life forms are divided into two pairs of identical facing parts. They may have a central sensor cluster (a head), or distributed sensors, a front and back, etc.

Radial Symmetry: Life forms are roughly circular, and may be cross-sectioned across multiple planes into several identical pieces. They have dorsal and ventral surfaces (tops and bottoms), but no defined "sides"; they may have no limbs, or several. Their symmetry is often described by their number of limbs: threefold, fourfold, etc.

Spherical Symmetry: Life forms can be divided into two identical halves by any cross-section through their centre.

Table 15-9: Number of Limbs

Roll 2D	Asymmetric / Radial	Bilateral	Biradial	Spherical
2	No limbs	No limbs	No limbs	No limbs
3	No limbs	No limbs	No limbs	No limbs
4	No limbs	No limbs	No limbs	No limbs
5	1 limb	2 limbs	4 limbs	No limbs
6-7	2 limbs	4 limbs	8 limbs	6 limbs
8-9	3-4 limbs	6 limbs	16 limbs	12 limbs
10	5-6 limbs	8 limbs	32 limbs	24 limbs
11	7-10 limbs	10-20 limbs	64 limbs	48 limbs
12	11+ limbs	22+ limbs	128+ limbs	96 limbs

III. DETERMINE LIMBS

Limbs (also called branches) are how a life form interacts with the world; touches, moves, reaches towards food. They may be jointed, tentacular, prehensile; specialised for movement, grasping, bearing leaves or photosynthetic elements, even feeding. Roll 2D or choose an entry on Table 15-9: Number of Limbs.

IV. DETERMINE FRAME

This may be a skeleton, cell wall, or solid body for physical life forms, or a lattice or other energy structure for exotic creatures. An **endoframe** is an internal skeleton or scaffold which supports the life form's body; an **exoframe** is an outer skeleton, cell wall, or scaffold with organs, etc, inside. Some life forms have no clear Frame; they may be simple assemblies of bodies and organs structured by mass and gravity, or have pervasive scaffolds in every cell. Roll 2D and add the world's Surface Gravity score, or choose from Table 15-10: Body Frame, applying the life form's **size DM** as a DM, and a DM-4 if the life form is aquatic. A body plan with a segmented frame (below) has a skeleton.

V. DETERMINE SEGMENTATION

Life forms often develop complexity and increase in scale by adding self-similar body parts (limbs, organs, etc), known as **segmentation**. Segmented body parts are often more resistant to damage, or may detach to form new life forms (see "Parochials"). Roll 2D or pick an entry on Table 15-11: Degree of Segmentation. For each segmentation area, roll 2D or pick an entry on Table 15-12: Area of Segmentation.

Table 15-10: Body Frame

Roll 2D + DMs	Frame
-1 or lower	Exoframe
0	No Frame
1	Exoframe
2	No Frame
3	Exoframe
4	No Frame
5	Exoframe
6	No Frame
7	Endoframe
8	No Frame
9	Endoframe
10	No Frame
11	Endoframe
12	No Frame
13	Endoframe
14	No Frame
15 or higher	Endoframe[1]

[1] *Or "No Frame" if the life form is composed of fields.*

Table 15-11: Degree of Segmentation

2D	Segmentation
2	Four areas
3	Three areas
4	Two areas
5-6	One area
7-8	No Segmentation
9	One area
10	Two areas
11	Three areas
12	Four areas

Table 15-12: Area of Segmentation

2D	Area
2	Organs
3	Body
4	Limbs
5-6	Frame*
7-8	Frame*
9	Frame*
10	Limbs
11	Body
12	Organs

**if you've established the Body Plan has no frame, this is a "No Segmentation" result.*

5. Environmental Characteristics

Consider the characteristics of the environment which may influence the ecosystem's nature and life forms, based on the planetary characteristics and Planetary Type descriptions in **Chapter 13: World Creation.** Depending on the ecosystem's Biodiversity (page 301), create from 1-6 short phrases describing these characteristics.

A gas giant environment may be exposed to Ferocious Winds, Searing Radiation, *with a* Highly Layered Atmosphere. *An inferno ecosystem might have* Burning Temperatures, Crushing Pressure, and Lightwave Distortion.

Any particularly extreme planetary characteristic, such as a Surface Gravity of 4 (Very Low) or lower or 12 (Very High) or Higher, or the same for Atmospheric Pressure; or a Surface Temperature of 1 (Frigid) or lower or 14 (Furnace) or higher, is automatically an environmental characteristic. Lacking any such extreme characteristics, consider what conditions on the planet are like and what about them seems particularly notable. For example, a planet with Atmospheric Pressure 5 (Low) or greater and Day Length 10 (Very Rapid) or faster probably has perpetual winds that grow extremely fierce at times, so *Ferocious Winds* would make sense as an environmental characteristic.

You can use environmental characteristics when defining key parochials (below), when selecting traits (page 309), and also when defining behaviours (page 310).

6. Key Parochials

Life adapts to its environment. Although each ecosystem is unique, the broad principles are common to life everywhere.

Primary Senses

Selecting parochials lets you define the sense used by your ecosystem's life forms. This is driven by environment and paradigm; exotics may sense gravity, magnetism, density, nuclear forces, while t-analogue life forms have ear and eye analogues.

Known as **universals**, these principles include strategies like photosynthesis, flying, and grazing on other life forms. The precise forms these universals take in a given ecosystem are called **parochials**, and include things like plants using chlorophyll, animals evolving feathered flapping wings, teeth evolving to chew leaves, and so on. **Parochials are unique**

Table 15-13: Universals and Parochials

Universal	Example Parochial	Universal	Example Parochial
Airways and foodways	*Mouths and noses sharing passages.*	K-strategists (having few offspring and caring for them)	*Human families.*
Bacterial forms on aqueous planets	*Old Martian bacteria.*	Life invading land	*Amphibians.*
Bilateral body symmetry	*Reptiles, mammals, insects.*	Life starting in aqueous environments	*Stromatolites.*
Brains	*Hypothalamus, dual hemisphere brains in heads.*	No frame	*Molluscs.*
Cells	*Old Earth plant cell structures.*	Aqueous environments leading to oxygen atmospheres	*Great Oxidation Event.*
Cell membranes	*Fats making cell membranes.*	Photosynthesis	*Plants using chlorophyll.*
Defensive weapons	*Electricity generation, claws.*	Planets with diverse ecologies in different regions	*The Everglades, upper atmosphere life forms.*
Ecosystem feedback	*GAIA.*	Predators	*Great cats.*
Eyes	*Binocular eyes in head, 360-degree infrared eye cluster.*	Protein and sugar analogues	*Proteins and sugars.*
Flight	*Wings, gasbags, gliding membranes.*	R-strategists (having many offspring but not caring for them)	*Frogspawn.*
Food ingestion "mouths"	*Jaws working up and down, teeth.*	Radial body symmetry	*Octopus.*
Fur	*Hair follicles and patterns.*	Segmented exoframe	*Insects.*
Grazers	*Sheep.*	Self-replicator	*DNA.*
Higher life forms vs lower	*Mammals vs arthropods.*	Sense organs near the brain	*Ears.*
Intelligent aliens	*Large-brained humanoids.*	Sex	*Male and female.*
Jointed limbs	*Wheels; elbows and wrists.*	Skeletons	*Exoskeletons, endoskeletons, vertebrates.*

to a given ecosystem; they'll never happen exactly the same way twice (indeed, finding the same parochial in two different ecosystems is evidence of common ancestry). For gaming purposes you'll often use the same rough description for different parochials; for example, you may describe life forms on different worlds having "wings", but when you come down to a detailed analysis, the nature of those wings—whether they have bones, feathers, skin membranes, the way they're jointed and muscled, etc—will be unique to that ecosystem and body plan. Table 15-13: Universals and Parochials lists some common universals and example parochials.

When creating your ecosystem, **select at least two parochials** to characterise it. You can even do this on the fly when describing a newly encountered ecosystem.

EXAMPLE ECOSYSTEMS

This section provides ten sample ecosystems; use them as is, or as templates to create your own.

AQUEOUS PLANET ECOSYSTEM, STANDARD GRAVITY

An ecosystem dominated by thousands of lop-sided two-branched "trees" covered with dense foliage, grazed by many species of agile hexapedal grazers and their predators, with three eyes and glide membranes stretched between their limbs. The ground between the "trees" is riddled by 2-3 metre-long "snakes" which feed on detritus and occasionally pull gliders out of the air.

Biodiversity: 6 (Standard).

Paradigm: T-Analogue.

Metabolic Bases: Photosynthesis; cellulose and flesh and-blood analogues.

Body Plans: *Primary Sessile:* Large (+4) Asymmetrical Unsegmented Trees With Two Unequal Branches, Internal Frame; *Primary Motile:* Small (-2) Bilateral Tree-Dwelling Hexapods With Segmented Limbs and Bodies and Internal Skeletons; *Secondary Motile:* Small (-2) to Large (+3) Limbless Ground-dwellers with Segmented Bodies and Internal Skeletons.

Environmental Characteristics: *Clear Atmosphere Sighting; Gravity Allows Leaping and Flying; Precipitation.*

Key Parochials: *Glide Membranes; Trinocular Vision.*

EARLY AQUEOUS PLANET ECOSYSTEM, STANDARD GRAVITY

An early atmosphere with no free oxygen, simple aquatic life forms clustering around hydrothermal vents.

Biodiversity: 2 (Very Low).

Paradigm: Alternate.

Metabolic Bases: Chemosynthesis; hydrocarbon analogue tissue.

Body Plans: *Sessile:* Medium (+0) Bilateral Cell-agglomeration With 4 Tendrils and No Frame; *Motile:* Small (-3) Swimming Sponge-analogue With Rigid Outer Frame and 2 Segmented Swimming "Oars".

Environmental Characteristics: *Hydrothermal Vent Islands.*

Key Parochials: *Swimming Oars.*

DUST CLOUD ECOSYSTEM, MICROGRAVITY

Sessile plasma clouds harvest magnetic fields to add new gas molecules to their bodies. Large motile dust clouds feed on the plasma, and "dust squids" feed on them and each other.

Biodiversity: 5 (Low).

Paradigm: Exotic.

Metabolic Bases: Magnetosynthesis; plasma bodies; ships and energy fields may be seen as food.

Body Plans: *Primary Sessile:* Large (+5) Diffuse Bilateral Plasma Cloud With 4 Long Tendrils, Composed of Multiple "Cloudlets" Like a Bubble Cluster; *Primary Motile:* Large (+7) Magnetic Suspension Dust / Plasma Cloud With Bilateral External Lattice and 2 Feeder-conduit Limbs; *Secondary Motile:* Large (+6) Segmented 8-limbed Dust/Plasma "Spider".

Environmental Characteristics: *Bodies of Dust in Plasma/Magnetic Suspension.*

Key Parochials: *Magnetic Field and Density Senses.*

GARDEN WORLD ECOSYSTEM, STANDARD GRAVITY

This world's abundant life has been genurgically modified to be compatible with terrestrial life. It's a world of thick round juicy

plants filled with water, and creeping jelly-like rugs glistening like jewels feeding on them, with octopoids constricting the jellies and pulling bits off to "farm" them. And it's all edible…

Biodiversity: 7 (Standard).

Paradigm: T-Congruent.

Metabolic Bases: Photosynthesis; cellulose, flesh and blood.

Body Plans: *Primary Sessile:* Large (+2) Trilobe Circular "Plants"; *Primary Motile:* Large (+1) "Jelly Rugs" With Hundreds of Tendrils Front and Back; *Secondary Motile:* Small (-1) Octopoids With Segmented Limbs.

Environmental Characteristics: *Evolved Water Storage Organs; High Winds Force Things Close to the Ground; Translucent Gelatinous Tissue.*

Key Parochials: *Communication by Light Refraction Through Body; Nutrient Absorption Through Jelly.*

GAS GIANT ECOSYSTEM, HIGH GRAVITY

The hostile radiation environment of high gravity, intense pressure, and extreme winds of a gas giant atmosphere is home to magnetic field-feeding floaters which form the basis of a floater-flyer-glider food chain. Most life forms are buoyant, drifting or "paddling" through the atmosphere, with bodies of highly flammable oxocarbons like dense peat or rubber.

Biodiversity: 4 (Low).

Paradigm: Parallel.

Metabolic Bases: Magnetosynthesis; oxocarbon bodies.

Body Plans: *Primary Sessile:* Large (+5) Bilateral Floater With Endoframe and Two "Roots"; *Primary Motile:* Large (+6) Bilateral 8-limbed Flyer (4 Wings, 4 Tentacles); *Secondary Motile:* Large (+4) Bilateral Hexapedal Glider (2 Wings, 4 Tendrils).

Environmental Characteristics: *Extreme Layered Winds; Magnetic Field and Radiation Environment.*

Key Parochials: *Gas Bag Lifting Sacs.*

INFERNO ECOSYSTEM, STANDARD GRAVITY

A searing hostile world of ribbon-like life forms grazing polyp mosses in the "acid sumps". Rapidly moving "starfish" swim in the sulphuric acid, and "ribbonpedes" drag themselves along the ground.

Biodiversity: 9 (High).

Paradigm: Parallel.

Metabolic Bases: Photosynthesis; sulphuric acid drinkers, sulphur and silicon bodies, metal oxide bones.

Body Plans: *Primary Sessile:* Large (+1) Flattened Bilateral 4-branched Polyp With Segmented Body; *Primary Motile:* Large (+4) Flattened Bilateral Quadruped With Segmented Skeleton; *Secondary Motile:* Large (+2) Flattened Octopoidal Biradial Starfish.

Environmental Characteristics: *Acid Rain; Crushing Pressure; Lightwave Distortion; Liquid Metal Pools; Searing Heat; Tearing Winds.*

Key Parochials: *Gripping Skin; Low-slung 2-D Body Plan; Natural Ceramic Shells.*

MARGINAL GARDEN WORLD ECOSYSTEM, STANDARD GRAVITY

A devastated planet with a compromised ecosystem and atmospheric contamination, where life forms filter pollution, are omnivorous, and "bud" parts of their bodies which drop off and form new life forms.

Biodiversity: 4 (Low).

Paradigm: T-Analogue.

Metabolic Bases: Photosynthesis; hydrocarbons, cellulose and flesh-and-blood analogues.

Body Plans: *Primary Sessile:* Large (+1) Bilateral 6-branched Segmented Frameless Body; *Primary Motile:* Small (-1) Biradial Endoframe With 8 Segmented Limbs and Segmented Body; *Secondary Motile:* Small (-2) Radial 4-limbed Endoframe With Segmented Body and Limbs.

Environmental Characteristics: *Denuded Food Chain; Global Dust; Post Impact Event.*

Key Parochials: *Budding Reproduction.*

NON-AQUEOUS COLD WORLD ECOSYSTEM, LOW GRAVITY

An iceball world of slow-moving "acid bag" life forms; normal human temperatures burn them immediately. They perceive humans as threats and dissolve them if possible, but are usually too slow to do damage.

Biodiversity: 2 (Very Low).

Paradigm: Alternate.

Metabolic Bases: Chemosynthesis; hydrocarbon alternates, hydrogen fluoride (acid).

Body Plans: *Sessile:* Large (+2) Bilateral Frameless Segmented Body With 4 Segmented Lobes; *Motile:* Large (+4) Biradial Frameless Body With 8 Segmented Limbs.

Environmental Characteristics: *Slow-Moving.*

Key Parochials: *Acid Blood; Heat-Blind, Supercool Body Sac.*

NON-AQUEOUS HOT WORLD ECOSYSTEM, STANDARD GRAVITY

A fiercely hot world of molten lead and sulphur, with metal branched sessile life forms grazed by crawler monopods. Spherical "sulphur bag" motiles roll over them rapidly, herding and feeding.

Biodiversity: 8 (High).

Paradigm: Alternate.

Metabolic Bases: Chemosynthesis; metal skeletons, mineral oxide skin.

Body Plans: *Primary Sessile:* Large (+7) Biradial 32-branched Endoframe With Segmented Frame, Branches, and Body; *Primary Motile:* Large (+5) Single-limbed Frameless Unsegmented Body; *Secondary Motile:* Large (+4) Spherical 12-limbed Endoframe With Segmented Body and Limbs.

Environmental Characteristics: *Fast-Moving; Sulphur Dioxide and Sulphuric Acid Atmosphere.*

Key Parochials: *Acid Spray; Burn Off Waste Gases; Taste/Smell Primary Sense.*

PHOTOSPHERE ECOSYSTEM, EXOTIC GRAVITY

The super-energetic photosphere environment hosts a magnetic field-based ecosystem of great size and rapidity, essentially invisible to humans and too fast to perceive without instruments, most of which are destroyed when the life forms try to communicate.

Biodiversity: 11 (Very High).

Paradigm: Exotic.

Metabolic Bases: Magnetosynthesis; "bodies" of magnetic fields.

Body Plans: *Primary Sessile:* Large (+3) Radial 7-10 Lobed Endoframe Lattice With Segmented Body; *Secondary Sessile:* Large (+7) Radial 2-lobed Segmented Endoframe Lattice; *Primary Motile:* Large (+9) Bilateral 6-tentacled Endoframe Lattice; *Secondary Motile:* Large (+5) Bilateral 6-tentacled Endoframe Lattice With Segmented Frame and Tentacles.

Environmental Characteristics: *Density Sense; Magnetic Sense; Very Rapid Movement.*

Key Parochials: *Magnetic Vortex Self-replicator; Natural Gauss Field Disruptor Weapon Is Communication Method; R-strategists Scattering Toruses.*

CREATING LIFE FORMS

This section explains how to create a life form; the final result is a stat block, although you can also just create a quick **Life Form Concept** if you don't need actual stats. Life form stat blocks are slightly expanded versions of the examples on pages 82-83 of the ***Traveller Core Rulebook***, and are based on the creature's size, traits, and ecological niche. See page 312 for an example.

Every life form plays a role in an ecosystem—a hunter, grazer, omnivore, etc. The world's ecosystem provides descriptive hooks for what the life form looks like: its body plan, what it's made of, special evolutionary adaptations; while the life form build specifies what it **does**. You don't have to define a complete ecosystem to create a life form stat block—you can do it with just a loose idea of what the life form's environment is like.

Table 15-14: Life Form Classification

2D	Motile	Sessile
2	Producer	Carnivore
3	Herbivore	Omnivore
4	Herbivore	Herbivore
5	Herbivore	Producer
6-7	Herbivore	Producer
8-9	Omnivore	Producer
10	Carnivore	Herbivore
11	Omnivore	Omnivore
12	Carnivore	Carnivore

Table 15-15: Herbivore Build

2D by Terrain	Converter	Parasite	Filter Feeder	Grazer	Intermittent
Aquatic	2-3	4	5-6	7-9	10-12
Broken	2	3	4	5-6	7-12
Conurbation	2	3	—	4	5-12
Desert	2-3	4	5-8	9	10-12
Hills	2	3	4	5-7	8-12
Ice Cap	2	3	4-6	7-8	9-12
Jungle	2	3	4	5-6	7-12
Mountains	2	3	4	5-8	9-12
Ocean / Lake	2	3	4-6	7-8	9-12
Plains	2	3	4	5-10	11-12
Rough	2	3	4-6	7-8	9-12
Swamp	2	3	4-7	8-9	10-12
Volcanic	2	3	4-7	8-9	10-12
Woodland	2	3	4	5-8	9-12

Selecting the Life Form Build

To select a Life Form Build, choose one of your ecosystem's Body Plans for your life form. This is often the primary motile, the Body Plan representing most of the biosphere's animal analogues. Then, choose whether you wish to create a motile or a sessile life form and roll or select an entry on Table 15-14: Life Form Classification to determine the broad position it occupies in the ecosystem. To determine the Life Form Build, roll 2D or select an entry from Table 15-15: Herbivore Build, Table 15-16: Carnivore Build, or Table 15-17: Omnivore Build, based on the life form's classification and terrain it typically

Producers and Plants

The term "producer" refers to primary metabolisers (page 302)—for example, terrestrial plants. Although you won't often use producers in stat blocks, they are valid life forms in most biospheres.

Table 15-16: Carnivore Build							
2D by Terrain	**Ambusher**	**Chaser**	**Hunter**	**Pouncer**	**Raider**	**Stalker**	**Trapper**
Aquatic	2	3-5	6-7	8-9	10	11	12
Broken	2-3	-	4-6	7-8	9	10	11-12
Conurbation	-	-	-	2-5	6-9	10-12	-
Desert	2-3	-	4-6	-	-	7-9	10-12
Hills	2	3-6	7-8	9	10	11	12
Ice Cap	-	2-3	4-6	-	-	7-9	10-12
Jungle	2-5	-	6	-	-	7-9	10-12
Mountains	2-4	-	5-8	9	-	10-11	12
Ocean / Lake	-	2-6	7-9	10	-	11-12	-
Plains	-	2-6	7-8	9	10	11	12
Rough	2	3	4-6	7-8	9	10-11	12
Swamp	2	-	-	3	4-6	7-8	9-12
Volcanic	2-3	-	4-6	-	7-9	-	10-12
Woodland	2	3-6	7-8	9	10	11	12

Table 15-17: Omnivore Build			
2D by Terrain	**Eater**	**Gatherer**	**Scrounger**
Aquatic	2-4	5-6	7-12
Broken	2-4	5-6	7-12
Conurbation	2	3	4-12
Desert	2-7	8-9	10-12
Hills	2-6	7-8	9-12
Ice Cap	2-10	11	12
Jungle	2-4	5-8	9-12
Mountains	2-7	8-9	10-12
Ocean / Lake	2-4	5-6	7-12
Plains	2-6	7-8	9-12
Rough	2-4	5-6	7-12
Swamp	2-7	8-9	10-12
Volcanic	2-3	4-6	7-12
Woodland	2-4	5-10	11-12

inhabits. You can determine terrain from the **planetary map** for the world (page 284), or pick one. The default terrain is "Plains".

Life Form Build Characteristics

The following characteristics are used in the sample life form builds; you can also use them to create your own.

1. LIFE FORM CONCEPT

The Life Form Concept describes its ecological **niche**, often just its native terrain plus its build, ie *Jungle Ambusher, Plains Hunter*, and so on. Usually there's only one life form per niche in a stable ecosystem; otherwise the ecosystem is unstable, and life forms will be competing for the niche. For a selection of life forms to populate an encounter table or help you describe a world, simply generate a number of Life Form Concepts. You can also use the sections below to expand on a life form concept to produce a detailed stat block, even on the fly.

2. TRAITS

Traits are special abilities which life forms have developed. They're part of a life form's evolved capabilities, and include tentacles, suckers, fangs, web spinners, stingers, venomous bites, gas generation, and others. They're **universals**; you'll reinterpret them in the light of the ecosystem's key parochials (page 305). Select up to **three** traits; one from the life form build, one derived from the ecosystem (probably the Body Plan or an Environmental Characteristic), and one chosen freely or derived from a Parochial.

ADDITIONAL ANIMAL TRAITS

All of the animal traits from the ***Traveller Core Rulebook*** (pages 80-84) are available for use, including the psionic trait. However, psionics should largely or exclusively only be available to Alternate, Parallel, and Exotic life forms.. Also, any of the traits described in **Chapter 3: Creating Characters** (page 34) may also be applied to animals. In addition, the following additional animal traits are available.

Biological Laser: Creature can make an attack equal to a null pistol (page 119)

Biological Suspensors: The creature has a biological equivalent of the grav lifter implant (see Augmentations, page 100). Only creatures with parallel or exotic biochemistries are likely to possess this unusual trait.

Breath Holding: Creature can survive without breathable (to it) air for up to 1 hour.

Dispersed Body: The life form's body is composed of dispersed plasma, diffuse particles, tiny life forms, living interstellar dust, photons, or other particles, or even networks of veins, roots, or other tissue spread over a wide area. It may be very large or widespread, diffuse, and ethereal. Only burst attacks and other attacks that affect an area rather than a single target can damage this creature. In addition, if it is mobile, it can easily slip into or out of any container that is not at least water-tight.

Disruption Field: The creature can generate a natural electromagnetic pulse. This has the effect of a severe electromagnetic storm covering a radius of 20m around the creature. Some creatures generate this effect continuously, but others can only do so periodically, with the effect lasting 1D+2 minutes.

Fast Regeneration: The creature heals 1 Hit every 5 minutes and can recover from injuries that appear lethal. Only doing twice its total Hits is sufficient to actually kill it.

Leaping: The creature can leap at least twice the length of its own body straight up or make a long jump equal to at least four times the length of its body. Double both lengths for creatures which are Small (-1) or smaller. In 1G or higher gravities, this trait is limited to creatures no bigger than Large (+2).

Natural Effectors: The creature has organs that duplicate the abilities of effectors (see Survival Gear, page 115). Only creatures with parallel or exotic biochemistries are likely to possess this unusual trait.

Natural Force Field: The creature can generate a haze field (see Armour, page 97). Only creatures with parallel or exotic biochemistries are likely to possess this unusual trait.

Regeneration: The creature heals 1 Hit per hour.

Spider Feet: Creature can walk on walls and ceilings at normal movement speed. In 1G or higher gravities, this trait is limited to creatures smaller than Large (+1).

Variform Body: The creature can alter its shape in complex ways. See the Variform Body augmentation (page 104) for details.

3. BEHAVIOUR AND REACTIONS

Refer to the ***Traveller Core Rulebook*** (pages 84-85) for rules for life form behaviours. However, because the categories of life forms are somewhat different and interactions between radically different biologies make the situation more complex, refer to Table 15-18: Revised Life Form Reactions. In addition, decide upon the life form's social structure. Does it travel in vast herds, small packs, or is it mostly solitary? In general, most carnivores are either solitary or live in small groups, but herbivores and omnivores both can be solitary, dwell in small groups, or congregate in enormous bands or schools. A few carnivores, like insect-eating bats, also live in vast colonies.

FIGHT OR FLIGHT

The Flee and Attack columns assume encounters between two creatures of the same paradigm, and you should also use them for all encounters between Maintained, Transplant, T-Congruent, or T-Analogue paradigm life forms. Use one of the other two columns for characters encountering Alternate or Parallel paradigm life forms. Exotic paradigm life forms typically do not notice life from other paradigms, and, on the few occasions they can, they flee on a roll of 2 and attack on a roll of 12.

Table 15-18: Revised Life Form Reactions

Animal Type	Flee	Attack	Alternate (Flee / Attack)	Parallel (Flee / Attack)
HERBIVORE				
Converter	7-	10+	6- / 12	4- / no
Filter Feeder	5-	10+ if possible	4- / 12 if possible	2 / no
Grazer	6-	8+	5- / 10+	3- / no
Intermittent	4-	10+	3- / 12	2 / no
Parasite	8-	10+	7- / 12	4- / no
CARNIVORE				
Ambusher	5-	If life form has surprise, it attacks.	3-; if the life form has surprise, it attacks on 8+.	3- / 11+
Chaser	5-	If the life form is of greater Size, it attacks on 6+. Otherwise, it attacks on 10+.	3-; if the life form is of greater Size, it attacks on 8+, otherwise, it attacks on 12.	3- / 12
Hunter	5-	If the life form is of greater Size, it attacks on 6+. Otherwise, it attacks on 10+.	3-; if the life form is of greater Size, it attacks on 8+, otherwise, it attacks on 12.	3- / 12
Pouncer	If surprised, flees.	If the life form has surprise, it attacks.	If surprised, it flees; if it has surprise, it attacks on 8+.	3- / 11+
Raider	5-	If the life form outnumbers prey, it attacks.	3-; if the life form outnumbers prey, it attacks on 8+.	3- / 11+
Stalker	5-	If the life form has surprise, it attacks.	3-; if the life form has surprise, it attacks on 8+.	3- / 11+
Trapper	5-	If animal has surprise, it attacks.	3-; if the life form has surprise, it attacks on 8+.	3- / 11+
OMNIVORE				
Eater	4-	5+	5+	2 / 9+
Gatherer	7-	9+	9+	3- / 12
Scrounger	7-	8+	8+	3- / 11+

ANIMAL TYPES

The following are the 15 animal types used in ***Mindjammer***. Some of these are similar to those described in the ***Traveller Core Rulebook***, but others are different.

Ambusher (ant lion): Ambushers lie in wait for prey and then attack in a lightning fast strike.

Chaser (cheetah): Animals which kill their prey by attacking and exhausting it after a chase. Chasers have Athletics (dexterity and/or endurance).

Converter (earthworm): Converters transform dead or unresisting biomass or other materials into a simpler form, used by other life forms or processes in the ecosystem.

Eater (army ant): Eaters will eat anything they encounter, including characters.

Filter Feeder (blue whale): Herbivores which pass their environment through their bodies are termed filter feeders. Unlike grazers, which move to food, filters move a flow of matter through themselves and filter out the food.

Gatherer (raccoon, chimpanzee): Gatherers are herbivores that collect and store food. Gatherers have the Stealth skill.

Grazer (antelope): Grazers move from food source to food source, often in large packs. Their primary form of defence tends to be fleeing danger.

Hunter (tiger): Hunters tracks prey entering its territory and attacks once they are in range. Hunters have the Melee skill.

Intermittent (elephant): Herbivores that do not devote their entire time to searching for food.

Parasite (leech): Parasites hitch a ride on their prey, draining its energy but not killing it. They may be sessile. Parasites have the Stealth skill.

Pouncer (cat): Pouncers kill by stalking and ambushing their prey. Pouncers have the Athletics (dexterity or strength), Recon, and Stealth skills.

Raider (wolf): Raiders make running attacks on groups of its prey, usually aiming to carry one or more away. Raiders have the Tactics skill.

Scrounger (hyena): Scroungers use intimidation or subterfuge to steal prey from other predators. Scroungers have the Persuade skill.

Stalker (cobra): Stalkers pursue prey stealthily, wearing it down by occasional attacks, exhaustion, or poison. Stalkers have the Stealth skill.

Trapper (spider): An animal which allows its prey to enter a trap. Generally, any creature surprised by a trapper is caught in its trap.

OTHER BEHAVIOURS

In addition to fight or flight behaviours, every life form has other behaviours. Is the animal social, and if so does it gather in small groups or large ones? Any type of animal can be social, and while grazers or raiders are most likely, social parasites or trappers are also possible. Also, while smaller animals are more likely to gather in larger numbers, some herbivorous dinosaurs travelled in large herds, so the choice is yours. Remember that social behaviour is also closely connected to how an animal reproduces or obtains food. Does the life form have any other distinctive behaviours. Does it warn or attempt to intimidate potential threats, like a rattlesnake using its rattle, or does it instantly either flee or attack when threatened?

For any animal that will play a significant role, you should record at least 3 behaviours.

1. A behaviour directly related to its animal type: a gatherer might store food in large caches, a scrounger could be primarily a scavenger, a trapper might live in a hole in the ground surrounded by its long, carefully concealed electrified tendrils.
2. A behaviour describing how social it is with its own kind and possibly its reproductive strategy: an ambusher could lead a solitary life and reproduce by budding; a raider might live in large packs of two dozen or more in order to hunt much larger prey; a scrounger could live in small prides.
3. A behaviour related to how the animal responds to potential threats if it does not flee or attack. An ambusher might hide and wait for the potential threat to leave or come within range; a raider could gather in large groups to carefully observe the threat and work to defend one another from it; a scrounger might attempt to intimidate potential predators if threatened.

4. SKILLS

Life forms typically have between 3 and 7 skill levels. They should have between 1 and 3 levels in any skill mentioned in the description of their type (above), as well as at least 1 level of Survival, and, if the creature has any physical attacks, 1 level of Melee.

Stat Blocks

Stat blocks for life forms in ***Mindjammer*** are similar to those on pages 80-83 of the the ***Traveller Core Rulebook***, but with a few additions. The following example shows a **Dodecadon**, one of the Secondary Motiles from the Non-Aqueous Hot World ecosystem (page 307).

DODECADON

Life Form

Hits	Speed	Size	Paradigm
80	*60m*	*Large (+4)*	*Alternate*

Skills	Athletics (dexterity) 2, Melee (claws) 1, Persuade 2, Survival 2
Attacks	Claws (5D)
Traits	Alarm (howl), Armour (+6)
Animal Type	Scrounger
Behaviours	• Primarily a scavenger. • Lives in small prides. • Intimidates if threatened.
Description	Spherical 12-limbed Endoframe With Segmented Body and Limbs.
Homeworld	Non-aqueous hot world ecosystem

Exploration Missions: Life Form Analysis

Once you have successfully performed a biosphere identification and analysis (page 313), you can then go on to look at individual life forms. Performing a life form analysis requires somewhat more time, but yields detailed information about that particular species. It requires closer observation of the life form, and so you must either land on the planet or dispatch probes to observe the life form at close range. Use the same difficulty as for biosphere analysis in the same biosphere paradigm.

- Analyse a Life Form: *Variable Difficulty (see Table 15-20: Biosphere Analysis), Science (xenology[1]) check (1D Days, INT or EDU).*

  [1] You can substitute Science (biology) for Science (xenology) when analysing T-Congruent biospheres.

On a marginal success, you determine the life form concept (see above). Each point of Effect generated by this check allows you to determine either one animal trait, its behaviours, its type, its skills, and whether it shows any evidence of exointelligence (see below). Roll 1D to determine which life form characteristic you learn; reroll results that give you a characteristic that you already know (or that don't exist, if it only has a single animal trait). Apply a DM-1 to the Analyse a Life Form check if you wish to determine a specific ecosystem characteristic.

Exploration Missions: Biosphere Identification and Analysis

Once a starship or survey probe scans a planet, a sentience of some type must then examine this data and determine if they have found a living biosphere or simply some sort of unusual natural phenomenon. This process is trivial when examining Earth-derived biospheres, but far more challenging when the researcher is facing parallel or exotic paradigm life. The following check requires either a starship with civilian grade sensors or better, or the use of sensor or probe drones.

- Identify Biosphere: *Variable Difficulty (see Table 15-19: Biosphere Identification Difficulty), Science (biology or xenology) check (1D x 10 minutes, INT or EDU).*

Table 15-19: Biosphere Identification Difficulty

Paradigm	Identification Difficulty
Maintained, Transplant, T-Congruent, T-Analogue	Easy (4+)
Alternate	Routine (6+)
Parallel	Difficult (10+)
Exotic	Very Difficult (12+)

Success on this check reveals both the existence of the biosphere and its paradigm. The variable difficulty of the check also enables you to graduate the success level.

For example, when attempting to identify a Parallel paradigm biosphere (Difficult 10+), a roll of 7 means you're certain the world doesn't possess a Maintained, Transplant, T-Congruent, T-Analogue, or Alternate biosphere, but you can't tell if it possesses a Parallel or Exotic biosphere, while a roll of 11 means that you are certain that the world possesses a Parallel biosphere, but cannot determine if this world also has a second, Exotic biosphere.

For more detail, you must enter the planet's atmosphere (or use sensor or probe drones that enter the world's atmosphere) and examine the life forms from a distance of no more than a few kilometers.

- Analyse Biosphere: *Variable Difficulty (see Table 15-20: Biosphere Analysis), Science (xenology[1]) check (1D x 4 hours, INT or EDU).*

[1] You can substitute Science (biology) for Science (xenology) when analysing T-Congruent biospheres.

On a marginal success, you determine one of the six ecosystem characteristics (see above). Each point of Effect generated by this check allows you to determine another characteristic. Roll 1D to determine which ecosystem characteristic you learn; reroll results that give you a characteristic that you already know. Apply a DM-1 to the Analyse Biosphere check if you wish to determine a specific ecosystem characteristic.

Table 15-20: Biosphere Analysis

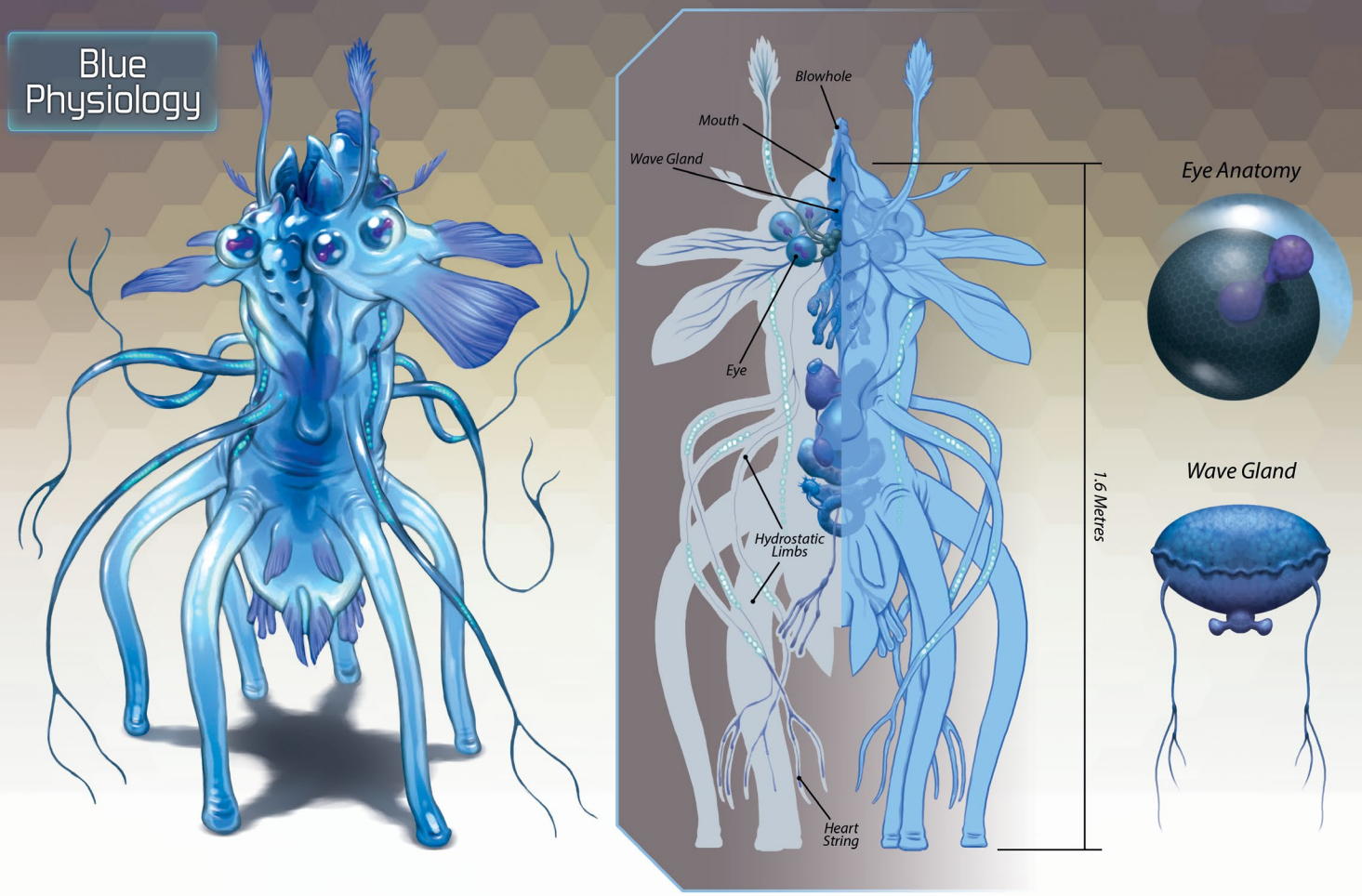
Paradigm	Analysis Difficulty
T-Congruent or T-Analogue*	Routine (6+)
Alternate	Average (8+)
Parallel	Very Difficult (12+)
Exotic	Formidable (14+)

** There is no need to roll for Maintained or Transplanted species, their ecosystem parameters are already well known.*

EXOINTELLIGENCE

Intelligence is a difficult concept to pin down. On Old Earth many animals display signs of intelligence, and among hominids, xenomorphs, and transhumans, it's clear that intelligence isn't simply a matter of "more" or "less", but of nature, too. How much more difficult is it to fathom the intelligence of true aliens. Alien biospheres are often remote from human experience and even perception. Like life itself, intelligence is a natural phenomenon which arises to help life forms overcome the challenges of their existence. But what if that existence has little or nothing in common with humankind? The intelligence of an ephemeral being a few millimetres across in the photosphere of a star, whose life is over in a few seconds, or of a dust cloud held together by cold magnetic vortices over hundreds of kilometres whose every thought takes a year—what can creatures like these have to say to humans?

Nevertheless, intelligence is a continuum. Life forms in biospheres closer to terrestrial norms are more comprehensible; communication with the Lowhigh and Hooyow has been possible, if not easy or immediately fruitful. This section lets you create the strange **exointelligences** which populate the biospheres of alien worlds.



Creating an Exointelligence

Create an exointelligence in as much or as little detail as you like. The principle is that you start with an alien life form, and then create an intelligent version of it. At minimum you need an **Exointelligence Concept**, which can be derived from a **Life Form Concept**. For greater detail, you can generate **exointelligence characteristics** (below), and combine them with selected life form build characteristics (page 309) in an **exointelligence build**, which you can then use to create stat blocks as required. You can even create alien intelligences for use as characters, although most aliens are too different to play in the majority of campaigns.

Modifying the Life Form Build

Begin with an ecosystem and a life form build. The creature's native environment, Paradigm, Metabolic Bases, Body Plan, Size, and traits are all used in modified form in the exointelligence build.

*Sarah's using the Dodecadon from page 312 to create an exointelligence she's calling the **Dodecadonite**. It's based on the Scrounger life form build (page 311) and the Non-Aqueous Hot World ecosystem (page 307).*

Exointelligence Characteristics

To create your exointelligence, determine the following characteristics.

1. EVOLUTION INDEX

Evolution Index is the most important characteristic when describing an exointelligence; how far it has evolved from the original life form build. Roll 2D or pick an entry on Table 15-21: Evolution Index, applying the Biosphere DMs from Table 13-5: Planetary Age (page 254) and the Evolution Index DM from Table 13-14: Surface Temperature (page 259). Intelligence is likely to emerge wherever conditions are right and enough time has passed; faster-moving (generally hotter) biospheres allow exointelligences to evolve more rapidly.

Sarah's Non-Aqueous Hot World ecosystem is a Young (4) world (Biosphere DM-1) with a Hot (13) temperature (Evolution Index DM+2). Using these modifiers and 2D, she rolls 7, for a total of 8: a Human Standard Evolution Index.

Each step of Evolution Index represents a notional increase of 10 Tech Indices in terms of what the entity can create and understand (see "Tech Indices" on page 93). The TI Range column indicates the range of TIs for an exointelligence of a particular Evolution Index.

For example, Ascendant exointelligences theoretically have Tech Indices of T40 and above. Posthuman exointelligences fall between T20 and T29.

The Min / Max INT and EDU column of Table 15-21: Evolution Index represent the minimum and maximum Intelligence and Education characteristic scores possible for an exointelligence of a particular Evolution Index; the rolled maximum is

Living on Alien Worlds

No alien world is naturally hospitable to humankind. Even if a rare planet has liquid water, clement temperatures, and a teeming biosphere, the overwhelming likelihood is that its life forms will not be metabolically compatible with humans in profound ways. Their digestive systems will be unable to break down biomatter, and colonists may eat their fill of local flora and fauna and still starve to death.

There are several ways to address this. Colonies can bring their own food with them, attempt to grow it locally, genurgically engineer local food to be edible to them, or engineer themselves to metabolise local food. All of these strategies are legitimate, and can be found throughout Commonality Space.

Where native biospheres are vibrant and diverse, colonies tend to opt for heavy processing or self-modification; the latter is common on lost colony worlds, where original colonists did not expect any further physical contact with planets other than their new home. Where native biospheres are marginal, colonies tend to convert huge swathes of the environment to support terrestrial life forms, particularly food crops. In many cases native and introduced biospheres coexist, mutually incompatible yet competing for the same resources.

Colonists are generally proud of their worlds. Living anywhere but Old Earth takes an act of will, a determination to engage with the local biosphere and survive. Every life-bearing colony world has its unique food, favoured pets and domestic animals, house plants, gardens, spectacular scenery, and passionate enthusiasts for their adopted homes.

given, with the absolute maximum in parentheses.

For example, an unmodified human with a Human Standard Evolution Index has a minimum INT / EDU of 2, a maximum rolled INT / EDU of 12, and an absolute maximum INT / EDU of 15, while an intelligent chimp or early hominid, with a Pre-Human Evolution Index, has a maximum rolled INT / EDU of 2 and an absolute maximum INT / EDU of 5.

Each step of difference in Evolution Index between species imposes a DM-2 on their mutual comprehension and perception. Lower exointelligences may not be able to understand higher ones, and higher ones may not be able to perceive that lower exointelligences are fully sentient, or in fact even perceive them at all. As a result, communication between them may be compromised. These modifiers are in addition to Exointelligence Scale differences (below).

For example, a Posthuman exointelligence and a Low Human exointelligence are 3 levels apart. If they try to communicate, each faces a DM-6 penalty to all social and Social Science checks, including all Broker, Carouse, Diplomat, and Persuade checks.

2. EXOINTELLIGENCE SCALE

Exointelligence Scale (**Exoscale** for short) shows the scale at which the exointelligence routinely perceives its environment. Exoscale is based on a life form's size. Exointelligences of different exoscales incur scale penalties to conceptualise and perceive one another, equal to the difference in size between the two life forms divided by 2 (round up). Note that these DMs are in addition to those imposed by differences in Evolution Index. Characters can avoid Exoscale penalties by using smaller or larger avatars to interact with exointelligences on a different scale.

Table 15-21: Evolution Index

2D + DMs	Evolution Index	Comments	TI	Min/ Max INT/ EDU	Complexity DM
2 or lower	None	Intelligence has not evolved.	-	-/- (1)	-3
3-4	Pre-human	Dimly intelligent, slightly above "animal" levels; no fire use.	-	-/2 (5)	-2
5-6	Low Human	Tech Index T0 or less; fire use or analogues have been developed.	T0	1/7 (10)	-1
7-10	Human Standard	Tech Index T1 to T9; standard human levels.	T1 -T9	2/12 (15)	-
11-12	High Human	Tech Index T10 and above; evolving beyond the human.	T10-T19	7/17 (20)	+1
13-14	Posthuman	Qualitatively beyond the human species; massively widened awareness.	T20-T29	12/22 (25)	+2
15-16	Transcendent	Successor to posthuman evolution; global and universal minds. The Planetary Intelligence is the only known example.	T30-T39	17/27 (30)	+3
17 or higher	Ascendant	Theoretical universal and manifold minds.	T40+	22/32 (35)	+4

Highly Evolved Humans in the Commonality

A character whose personal Tech Index is 10 doesn't necessarily have a High Human Evolutionary Index: personal TI represents the technology you're accustomed to using, regardless of whether you're able to fully comprehend it and its implications. In fact, most Commonality citizens are solidly Human Standard, even if they're thoroughly submerged in a T10 culture.

*However, things are different for the creators of that T10 culture and its tech paradigms, and for the many individuals who are embracing its implications; those individuals **are** High Human Evolutionary Index, and have the problems you'd imagine when communicating with "lesser minds". These are the "super-boffins" of the Commonality—radically evolved sentiences, post-human minds, controlling intelligences of entire star systems. They're hard to comprehend, and most people just admit they're there, and, if they need to communicate with them, they usually just talk to an avatar representing a tiny portion of the entity's attention. There are millions of node minds and other individuals who have reached this level of cognitive evolution.*

*It's certainly possible for characters to increase their own Evolutionary Index: this is part of what's called **going post**, and it's dealt with in its own section on page 326. It involves increasing both your INT and EDU scores to the maximum possible for your current Evolution Index (shown in Table 15-21: Evolution Index), and then acquiring at least one **posthuman trait** requiring at least those scores.*

Differences of scale provide negative DMs to all checks involving mutual comprehension and perception. Smaller exointelligences may not be able to easily understand the actions of larger ones, and larger ones may not particularly notice the actions of smaller exointelligences.

Sarah's Dodecadonite has a size of Large (+3), so its Exoscale is higher than human normal. It'll have some difficulty relating to humans, and because the Dodecadonite has a size 3 points larger than a human, all interactions between humans and these creatures suffer a (3/2, round up) = DM-2.

3. EXOINTELLIGENCE CONCEPT

Intelligence is a tool a life form uses to overcome environmental challenges. Its **Exointelligence Concept** determines how it does this. Start with the life form's **social structure** which you came up with in "Behaviour and Reactions" above (page 310). This gives you the context in which its intelligence operates—whether it's solitary, a group intelligence, a herd intelligence, and so on.

Next, look at the life form build's **behaviour** (again from page 311). Is the life form more likely to attack or to flee threats? Alternatively, consider a major but occasional and unpredictable environmental hazard (see Environmental Characteristics, page 304). Most life forms initially evolve intelligence to deal with social behaviour, external threats, or both. Finally, look at the ecosystem's **metabolic bases** (page 301)—where the life form fits into the ecosystem and what it needs as its energy source.

Try to identify the factors which pushed the life form to develop intelligence. What you're looking for is a situation where either the life form's behaviour or environment is strongly impacting how it gets to its energy source. You're trying to identify a **goal** for the life form, and a **strategy** for how it gets there. Table 15-22: Exointelligence Strategies and Goals provides examples; you can roll 2D for each if you like, modified by the Complexity DM for the exointelligence's Evolution Index (such as DM-1 for Low Human or DM+4 for Ascendant).

Portraying Posthuman, Transcendent, and Ascendant Characters

Portraying entities of Low Human or even High Human evolutionary level is relatively easy, at least for brief periods. However, portraying Posthuman or Transcendent EL characters is more difficult, as their minds are far more advanced than standard humans can easily understand.

*Assume that Posthuman EL characters and above possess all the **posthuman traits** described in the Going Post section (page 327). When faced with such an entity, a standard human's attempts at subterfuge and deception will be about as effective as a smart dog trying to lie to a human. After any interaction of reasonable length, assume that Posthuman entities and above will have been able to thoroughly analyse the standard humans, and indeed understand them—in their own terms (again, think of how well a human "understands" a dog—that understanding probably doesn't mean much to the dog!).*

Ascendant characters are so far unknown to the Commonality. They would almost certainly be far beyond the ability of any human to comprehend.

Let's look at Sarah's Dodecadonite example. The original Dodecadon life form was a scrounger that lives in a fast-moving sulphuric scid atmosphere. It has the following three behaviours:

- *Primarily a scavenger.*
- *Lives in small prides.*
- *Intimidates if threatened.*

Sarah sees food isn't a major problem for the Dodecadonite: as an omnivore, it can "eat" pretty much anything. But it's a social life form, "herding" the acid intermittents: each Dodecadonite will struggle for dominant position in its small social group.

She decides the Dodecadonite's strategy is to ***Manipulate****, and its goal is* ***Dominion****: she doesn't see there's any need to roll randomly. She combines these with its social structure into an Exointelligence Concept* Small Group Exointelligence Manipulating for Dominion. *This isn't that different from human intelligence, so the two species will probably have a lot to say to one another—once they figure out how to communicate!*

4. BEHAVIOURS

An exointelligence's **behaviours** are based on the original life form build's three behaviours (page 312). For each **step** of Evolution Index above Pre-Human, sublimate one behaviour by making it less "animalistic" or more "sophisticated", either by changing it to support its **goal** or **strategy** (see above) or, if it has already been sublimated, removing or replacing it entirely. Exointelligences are often driven by instincts and urges which are holdovers from their pre-intelligent pasts.

Sarah's Dodecadonite has 2 sublimations to apply to its behaviours. She changes small prides *to* extended families in a larger society, *and* scavenger *to* collectors and hoarders. *She leaves* intimidates if threatened, *seeing this as one of the major driving forces of Dodecadonite society.*

5. MANIFESTATION

An exointelligence has up to four **manifestations** which describe how it contextualises its world and self view. Only include a manifestation if the exointelligence's approach differs noticeably from the human norm, or is otherwise important in play. These manifestations are:

Sensorium: How the exointelligence senses the world. *Example: Long Range Magnetic Field Senses.*

Communication: How it communicates with others of its kind. *Example: Communicates by Alterations in Body Density.*

Self View: How it conceptualises its "self". *Example: Diffuse Radio Massmind Instantiating Isolated Instances As Needed.*

Temporality: How the exointelligence experiences time. Some exointelligences experience the world notably faster or slower than humankind. These exointelligences possess a temporality that is different from ordinary humans. See Table 15-23: Temporality Effects.

Derive these manifestations from the ecosystem Parochials (page 305), Metabolic Bases (page 301), Paradigm (page 299), and Body Plan (page 302), as well as the life form's Social

Table 15-22: Exointelligence Strategies and Goals

Roll 2D + DMs	Goal	Strategy
2 or lower	Food	Defeat
3	Dominance	Defend
4	Comfort	Avoid
5	Reproduction	Destroy
6-7	Power	Defeat
8-9	Food	Defend
10	Isolation	Avoid
11	Dominion	Manipulate
12	Going Post	Self-directed Evolution
13	Transcendence	Self-directed Evolution
14	Global Mind	Modify
15	Universal Mind	Create
16 or higher	Manifold Mind	Fiat Creation

Table 15-23: Temporality Effects

Temporality	Effect
Slower (-2)	The exointelligence thinks and reacts much more slowly than humans. Increase the timeframe of all checks by two steps. A check that would take a human 1D minutes takes these entities 1D hours.
Slower (-1)	The exointelligence thinks and reacts slower than humans. Increase the timeframe of all checks by one step.
Standard (+0)	The exointelligence experiences times much like humankind.
Faster (+1)	The exointelligence thinks and reacts faster than humans. Decrease the timeframe of all checks by one step.
Faster (+2)	The exointelligence thinks and reacts much faster than humans. Decrease the timeframe of all checks by two step. A check that would take a human 1D hours only takes these entities 1D minutes.

Note: Exointelligences with temporality faster than Standard move 5-10 times faster than Old Earth-derived life forms of similar size and type for every step of difference in temporality. Exointelligences with temporality slower than Standard move 5-10 times slower than Old Earth-derived life forms of similar size and type for every step of difference in temporality.

Structure (page 312) and Evolution Index (page 314).

For example, the Dodecadonite has a Hot World metabolism and Alternate paradigm. Sarah decides it experiences time much faster than humans, with Faster (+1) temporality. She decides it Communicates by Waste Gases*, a vestige of its former Alarm (howl) trait. Its Self View is similar to humans, so she leaves that blank. Its Sensorium relies on heat and sound, and also on a strong acid taste/smell and probably a magnetic sense to detect metallic compounds. It can't "see" in the human and UV ranges, but senses heat and infrared.*

Producing the Stat Block

You can now use the build to create any NPC stat block. While you could just use the Exointelligence Concept to create an NPC the characters could have a brief and relatively unimportant interaction with, the additional details from the exointelligence build lets you create stat blocks for a credible alien intelligence which derives from its native world, and which also can provide some unusual and potentially challenging behaviours for interaction and analysis. The same stat block format used to describe the Dodecadonite below can be used for all exointelligences.

DODECADONITE

Life Form

Hits	Speed	Size
80	*60m*	*Large (+4)*
Paradigm	**Evolution Index**	
Alternate	*Human Standard*	

Common Skills:	Persuade.
Attacks:	5D.
Traits:	Armour (+6), Faster (+1) temporality.
Senses:	Taste/smell, hearing, magnetic sense, infrared sense.
Strategy:	Manipulate.
Goal:	Dominion.
Behaviours:	Collectors and hoarders; Lives in extended families in a larger society; Intimidates if threatened.
Evolved From:	Scrounger.
Homeworld:	Non-aqueous hot world ecosystem (page 307).

Exointelligences in the New Commonality of Humankind

Few people realised that extra-terrestrials would be so alien. In all the First Age of Space, Old Earth never heard back from any slowships which had contacted alien intelligences, and the prevailing orthodoxy was that humankind was alone, at least in this part of the galaxy (dubious signals received from the direction of Andromeda, and ambiguous chatter from the 8th Millennium Deep Space Probes before they mysteriously went offline, were never considered conclusive). First contact therefore came as a surprise.

The more the Commonality expands, the more alien species it encounters. As yet, none has been advanced enough to pose a threat, and Commonality researchers have many theories to explain this situation, all as provisional as the previous "Just Us" orthodoxy. The Commonality Custodians acknowledge this might not always be the case and, after the Venu, the Commonality is cautious when encountering alien life.

Significant alien species in Commonality Space include the **Hooyow** or "War Monsters"; the **Lowhigh** or "Listeners", described below; and the **Planetary Intelligence**, described

HOOYOW

Life Form

Hits	Speed	Size
32	*12m*	*Large (+1)*
Paradigm	**Evolution Index**	
Alternate	*Human Standard*	

Common Skills:	Melee, Tactics.
Attacks:	2D+5.
Traits:	Armour (+7), Fast (+6), Natural Weapon (+5).
Senses:	Hearing, sight (IR to visual), taste/smell.
Strategy:	Defeat.
Goal:	Dominance.
Behaviours:	Herds large grazers; Lives in large tribes; Attacks first if threatened.
Evolved From:	Raider.
Description:	Bilateral 6-limbed Exoframe With Segmented Frame and Limbs.
Homeworld:	Warm chlorine-tainted aqueous planet.

in the section on the Chembu (page 26). Several species native to the Outremer subsector (such as the Ganshi of Shay-shay and the Bryophytes of Morgna) are presented in **Chapter 17: The Outremer Subsector**. Opinion is divided whether the strange interstellar phenomena known as "Pulse Dragons" constitute a life form at all, let alone a sentient one.

HOOYOW

The **Hooyow**, or "War Monsters", are violent hexapedal aliens. Contacted only fifty years ago, little is known about them. They have three walking "modes" (two-legged, four-legged, six-legged), are cannibalistic, and like fighting; they're intelligent, technologically primitive, and short-lived, with a violent world-view. Their homeworld, dubbed **Valhalla** (page 293), is quarantined, but specialist Hooyow serve the Commonality as soldiers or martials arts instructors.

Hooyow interaction is governed by a complex behavioural code the Commonality calls "honour". Decisions are based on hierarchical intimidation and short, non-lethal duels, rather than discussion.

Hooyow society lacks fire- and metals-based technology (Tech Index T0). Hooyow in Commonality service (informally known as **Valkyrie**) seem to be adapting native Hooyow practices to the higher tech Commonality environment.

The Hooyow War Scythe

On Valhalla, the traditional Hooyow war scythes are fashioned from the natural fibre glass which grows in its exotic environment; in Commonality Space, these items are fashioned by makepoint, or occasionally crafted by Valkyrie themselves. They have up to six blades, and may make multiple attacks. To disrespect a Hooyow's war scythe is to invite violent retribution. But, then again, so many things do…

A Day For Honour

Someone's made a faux pas *on Valhalla, the Hooyow homeworld, and the only way out is by ritual combat. Before that, the candidate must prove himself by enduring the* Chau Cheng, *the "Test of the Wilderness". With Valhalla's chlorine-tainted atmosphere and poisonous flora and fauna, can the characters survive to wield a war scythe and face one of Valhalla's champions to preserve the Commonality's honour?*

LOWHIGH

The **Lowhigh**, or "Listeners", are a species of mysterious, mystical "space gypsies". They have no vocal organs, and no eyes; what appear to be two enormous "ears" are in fact infrared receptors. When humans first met them, the Lowhigh seemed to be constantly listening for something—hence their epithet. Unlike the Hooyow, the Lowhigh are spacefarers, sailing great, majestic **lightjammers**, and are found on several worlds. They are 2.5 metres tall, with five hundred year lifespans. Their dark homeworld orbits a brown dwarf known as "Shrine".

The Lowhigh are very alien. They seem barely interested in humans or the Commonality. Their worlds have high atmospheric helium and background radiation, suggesting an industrialised, fusion-powered past; but their societies are largely non-technological (except for the lightjammers), and the Lowhigh remain tight-lipped.

Lowhigh communicate via fluctuating heat patterns in their large, screen-like "ears", requiring a synthetic interpreter (hand scanners work; a synthetic with infrared receptors and emitters is better). Humans with IR goggles can learn to "read" Lowhigh infra-speech, but reproducing it is impossible without equipment.

LOWHIGH

Life Form

Hits	Speed	Size
21	*6 m*	*Human (+0)*
Paradigm	**Evolution Index**	
T-Analogue	*Human Standard*	

Common Skills:	Diplomacy, Stealth.
Attacks:	1D.
Traits:	Bioelectricity (+2D), Camouflaged[1], Unique Ability (entrance)[1, 2].
Senses:	Electrical field sense, infrared sense, magnetic sense, taste/smell.
Strategy:	Avoid.
Goal:	Isolation (or perhaps Comfort, I'm uncertain).
Behaviours:	Discretely gathers knowledge; Lives in large loosely knit communities; When threatened, remains motionless and waits for an opportunity to attack or flee.
Evolved From:	Trapper.
Description:	Bilateral 4-limbed Endoframe With Segmented Limbs.
Homeworld:	Cool, dark, aqueous planet.

[1]: Only to entities whose primary sense is IR vision
[2]: Flickering IR patterns cause prey to remain motionless and unaware

CREATING ALIEN CHARACTERS

Playing exointelligences can be challenging, as human assumptions about life or intelligence simply don't apply: aliens are by definition *alien*. If you want to take up the challenge, we suggest you use the alien life form and exointelligence creation rules above to come up with a stat block like the one above, then work with your referee to define additional skills and "careers" based on your exointelligence's strategy, goal, and behaviour.

Exoculture

Exocultures are cultures of non-human origin. In game terms, an exoculture is a culture stat block derived from an exointelligence build, using the guidelines for "Creating Cultures" on page 217. Bear in mind the following when creating an exoculture:

- Characters are only exposed to an exoculture's memes once successful communication and analysis has taken place.
- Cultural analysis and other cultural ops are subject to penalties based on Evolution Index, Exoscale, and Temporality.
- An exoculture's Tech Index is based on its Evolution Index. For scores other than Low Human, Human Standard, and High Human, use the broad Tech Index ranges rather than trying to detail individual Tech Indices (in other words, don't worry about defining a Transcendent exoculture as "Tech index 32", for example—it's just "more than 30").
- Exoculture capabilities probably look **radically** different from human or related capabilities. Use the exointelligence build, and in particular exointelligence concept, behaviours, and manifestations, to gauge what an exoculture's capabilities may look like, and require analysis checks modified by Exoscale and Evolution Index. It's likely that exoculture capabilities will be incomprehensible.
- All forms of culture conflict and operations are more difficult, modified by DMs for Evolution Index and Exoscale. First contact must have taken place.

Even More Alien

The alien intelligences given above are the ones that are most similar and comprehensible to Commonality citizens. There are others, so drastically removed from Commonality norms that people have difficulty even beginning to comprehend them—indeed, the jury is still out as to whether some of them are intelligent at all.

CHAPTER SIXTEEN
GAMEMASTERING MINDJAMMER

"The Core Worlds were as weird as hell. People lived forever, yet led repressed lives of drugged-out bliss. There were traditions thousands of years old, incomprehensible caste systems, terrifying social intrigue. Religion and democracy were illegal, and you could buy and sell xenomorphs like you would a set of clothes—just don't try and do it with money, or they'd treat you like you were some degenerate hick from the boondocks. People from the Core were as different from the Fringe as you could imagine; sometimes it was hard to believe they were even the same species."

This chapter looks at some key aspects of gaming in the ***Mindjammer*** universe—how choosing different themes, genres, and styles of play can affect your game.

THEMES: WHAT SHAPE WILL THE FUTURE BE?

The shape of the future is what's really at stake in ***Mindjammer***. Are human beings about to go extinct, replaced by transhuman intelligences? Is the Commonality going to be a force for liberation, or oppression? How should we direct our own evolution in this time of turmoil? All these questions are up for grabs, and everyone has an agenda. What's yours? What are you going to do to decide the future of the human race?

How you tackle these questions determines the **theme** of your ***Mindjammer*** game. The examples below provide some suggestions.

You can also use themes to inform the background of scenarios and story arcs, using them to determine plot and subject matter, or your game's mood. You can change themes, even from scenario to scenario, for a comprehensive feel, or between story arcs for a sense of development and progression.

Transhumanism

Human beings are not the pinnacle of evolution—they're just one step along the way. Genurgy, hypertech, and the Mindscape are helping the Commonality direct that evolution, and divergent evolution is taking humankind down some strange and unexpected paths. People are becoming something other than human—perhaps something more powerful.

Transhumanism is a major theme in ***Mindjammer***, permeating the whole setting. Making it your game's dominant theme lets you focus on its implications in the lives of your PCs.

Example Questions: *What are you evolving into? Are you going to lose your humanity, convinced you're superior to the common herd? Or are you going to be its protector? Are you going to leave the Commonality behind, concentrating on your own personal development, or even forging a new society out there among the stars? Or are you going to mould the Commonality into the shape you think it should have?*

A Golden Age

There's a lot of **optimism** in the ***Mindjammer*** setting. Sure, there are huge problems to overcome, but the Commonality looks like humankind's great hope to create a transhuman galactic civilisation, transcending everything that's gone before. **Golden Age** campaigns focus on this optimism; on building, on great prospects of trade, exploration, diplomacy, and discovery. Very often it's tied to the **heroic** or **epic** styles of play, and the **optimistic** tone (see below).

Example Questions: *What can you do to help the Rediscovery? Will you defend the Commonality culture as it rescues its long lost colonies? Are you for the Core or the Fringe? Can the two come together in a true Golden Age?*

A Chance to Begin Again!

The great migrations of the Commonality—whether in the past, during the Great Diaspora, or now, with Rediscovery and Expansion—are driven by people who've decided that lives in the gilded cages of the Commonality Core aren't for them. Turning their backs on lives of restriction, regulation, and pampered luxury, they're heading out to an uncertain and possibly very dangerous future on the Fringe or even beyond the Frontier, where they can live free, and choose their own lives for themselves.

Example Questions: *What made you leave? What are you looking for? Are you prepared for the hardships and deprivations of a life away from the pampered Core? Do you want to find a world where you can belong, or start your own colony?*

Looking Forwards, Looking Back

While Rediscovery only began two hundred years ago, humankind has been heading out to the stars for ten thousand years—and possibly longer. Many rediscovered worlds are ancient cultures—some technologically primitive, some preserved versions of ancient Old Earth cultures—or with surprising and possibly perilous unexpected differences.

With this theme, your game contrasts far future concepts with historical cultures and questions—whether historical cultures from the Commonality's past and our own futures which you invent yourself, or those based on our own historical past. Some culture worlds (page 232) are naturally this way—others are deliberate recreations to act as cultural "strong points".

Example Questions: *Has humankind lost its way? Are there things from the past we should preserve? Do these benighted worlds have the right to reject the Commonality?*

Following Up the Great Diaspora

The peak of the Great Diaspora lasted five thousand years, and comprised representatives of all manner of Old Earth peoples and cultures. There are secrets and experiments out there—things which history has forgotten.

With this theme your game comes up against the consequences of the past—the survival of cultures and ideas best forgotten, the resolution of historical mysteries, the clash of cultures with values millennia old with the vibrant New Commonality.

Example Questions: *How far did the Diaspora get? Was there really a forgotten First Diaspora in the Prehistoric Age of Space? Why did the Diaspora stop? Did we find something?*

Cultural Conflict

The Commonality culture is changing as a result of cultural conflicts with rediscovered worlds. With this theme, your game has huge power to decide how that process resolves—to determine the shape of the Commonality culture into the future and the cultures of many worlds. Your adventures don't have to deal with cultural manipulations and the culture rules directly, but the issues and story questions you face arise from those conflicts.

Example Questions: *Is the Commonality right to "defuse" dangerous memes? Or is it destroying cultural ideas before properly understanding them? What if you find a culture with better answers than the Commonality? Should the Commonality Fringe split from the Core? Would that lead to war?*

Conflict Is Everywhere

Amid endless opportunity, the Commonality flickers with war. It may be the birth of a new civilisation—or the death of one; it's too early to say. With this theme, your game focuses on the fighting which is everywhere in the Commonality—whether with the Venu, among the Successor States, in the mysterious military holdout expeditions along the edge of the Mardisti Anomaly, or any of a thousand places. Military campaigns, black and special ops, wars of trade, tech, space battles, or even primitive warrior cultures—there's endless scope to scratch that military science-fiction itch.

Example Questions: *Can you train up these colonists to resist the Venu invasion? Will you take the merc ticket, even though you know you're on the wrong side? How will you cope with losing your whole platoon in the Xeno Wars? No one but you can see the war that's coming—what are you going to do?*

STYLES OF PLAY

There are many ways to play science-fiction games; bright-eyed space opera, gritty realism, flippant gung-ho Western-style, thoughtful and philosophical, or even comic. This section provides some example **styles of play**. You can restrict yourself to one style, or move through styles as your campaign grows, or take occasional detours and excursions into different styles for a change.

Gritty

Gritty science-fiction is about individuals struggling to survive. It can be grim and dark, or have a tight focus on the personalities of PCs on colony worlds, exploring, fighting, surviving. Characters are usually everyday people. The gritty style can be linked to the **optimistic**, **pessimistic**, or even **cynical** tones (see below).

You'll often focus on a limited campaign area; maybe a few worlds, or even just one part of one world or system.

Example Starting Points: *A Platoon Ready to Tear Itself Apart; Repair the Ship Before the Attack Droids Arrive; Can the Colony Survive the First Winter?*

Example Campaign Themes: *Street Gangs of the Undercity; Travel the Trade Routes to Keep the Creditors at Bay.*

Heroic

The heroic style of play is more or less the ***Mindjammer*** default. It's about individuals making a difference, rising from positions of relative obscurity to tackle the big issues of the day. It's often **optimistic** or perhaps even a bit **cynical**; advancements are usually a big deal. You may concentrate on a narrow campaign scope to start with, then gradually broaden the focus.

Example Starting Points: *I Must Avenge My Father; War Comes Closer Every Day.*

Example Campaign Themes: *Expansionary Warlords of the Successor States; Power Vacuum on the Overstretched Frontier.*

Epic

Epic games are about the great sweep of human history and the stories of civilisations. The PCs are movers and shakers—generals, mediator sentiences, gestalt controllers, SCI Force controllers—and often long-lived and highly competent characters. You'll have organisation and culture extras, and be interacting directly with other organisations and cultures, and controlling fleets, armies, ministries, instrumentalities, and corporacies. Your campaign will regularly change your setting's aspects on a large scale.

Example Starting Points: *I Said I Would Never Lead the Fleet Again; These People Need Me.*

Example Campaign Themes: *The Quarantine Zone Cannot Hold; Chess Game of the Hidden Custodians.*

Meta / Philosophical

With meta / philosophical games, you're overtly playing with **ideas**, or running campaigns which are a little more abstract. Maybe your players are playing characters in charge of organisations, like governments, corporacies, instrumentalities, or cultures, and you're playing month- or year-long rounds to follow the history of the Commonality for years or centuries to come. Or maybe you're focussing on your **theme** more than your characters, perhaps playing through the lives of multiple characters to try and answer some "big questions" which intrigue you—maybe a "How the West Was Won" campaign, or even a "Decline and Fall" or "War Against the Machines".

Example Starting Points: *Chronodisplacement and the Chain of Command; Centrifugal Forces.*

Example Campaign Themes: *Consensus vs Command; Reining in the Corporacies With Instrumentality Power.*

TONE

The tone of your game is a personal choice and a matter of preference. By default, ***Mindjammer*** has an optimistic, if realistic, tone.

Optimistic

The New Commonality of Humankind is facing immense threats as it spreads to the stars, but is overcoming them. The evolution of humankind is challenging, often fraught with danger, but it's happening all the same. While everything could still fall apart, if your PCs remain brave, resourceful, and resolute, there's great cause for hope for a bright future.

Scenario Hooks: *Help the lost colony into the Commonality; Show the Venu the error of their ways; Deal with the challenges of transhuman evolution without losing your soul.*

Pessimistic

A pessimistic tone sees the PCs fighting desperate battles; the Commonality is becoming more oppressive as it expands; humankind itself faces annihilation or extinction at the hands of cold transhuman intellects; and the instinctive tribalism and bloodlust of human beings threatens to tear the nascent interstellar civilisation apart.

Be careful about using a pessimistic tone in campaigns; few people want to play relentlessly depressing games. Instead, maybe dip into this tone occasionally, perhaps for a scenario or story arc, and perhaps have the PCs' goals be to restore an optimistic tone. Alternatively, the PCs' goal may be to find their own small-scale, deeply personal causes for hope against a darker and more desperate backdrop.

Scenario Hooks: *A rag-tag bunch of rebels fighting a desperate cause; Rescue your brother from the Hades re-education planet.*

Cynical

A cynical tone depicts a Commonality of lies, propaganda, and corruption, which succeeds as long as everyone goes along with the pretence. Sure, everyone says Rediscovery is a noble project, but **we** know it's about extending imperial control; sure, the Mindscape gives us awesome powers, but **we** know it's also a medium for brainwashing and surveillance.

In a cynical game, your PCs may go along with the "big lie", or they may fight against it in their own way—exposing corruption and abuses, working for a better way.

Scenario Hooks: *Corporacy corruption controls the Commonality embargo; Why are we sanctioning a culture which wants monitor band cloaks to be legal?*

Light-hearted

For a more pulpy or even comic tone, reduce the conflicts in the ***Mindjammer*** setting to black-and-white, good vs evil. The Venu become Nazi-like goons who cackle manically and can't shoot straight; xenomorphs have exaggerated animal characteristics; synthetics have slinky sexy bodies or clunky whirring limbs. Culture worlds can be parodies of historical and national stereotypes, fictionals can be ludicrous and unlikely, and even the PCs can find themselves playing corny and cliched roles.

Light-hearted games run the risk of being short-term, one-joke games, and it can be difficult to "get serious" again afterwards. However, with the right group the occasional light-hearted or tongue-in-cheek session or scenario can be a welcome break from saving the world.

Scenario Hooks: *An intelligent alien species has been discovered which is irresistibly tasty to human palates—can the SCI Force contact team make it through First Contact before devouring their hosts? While penetrating the imposality of a mad dead dictator, the PCs find themselves in a virtual room with a tiny door in the wall and a bottle on a table labelled "Drink Me"…*

Surreal

Mindjammer can get pretty trippy; surreal games dial up the strangeness and its mind-blowing side. This can be a good approach for a campaign with the right group, especially for meta / philosophical games.

Scenario Hooks: *Your Mindjammer ship is a celebrity on the world you're visiting, and everywhere ships and vehicles crowd round pestering it for interviews. A solar flare has sent a heavily-armed manowar into eidolon crisis, and it's developed the personality of a seven-year old child. It's playing hide and seek in the planet's ring system, and has created an imposality that looks like a mediaeval war game to protect it in the Mindscape. How can the PCs get to it to provide redactive therapy?*

Symbolic / Allegorical

Mindjammer has many elements which echo real-world themes and historical trends. The Rediscovery has elements of imperial expansion, conquest, and colonisation; but also the moral self-doubt about whether it's ethically right. Expansion suggests the Voyages of Discovery. The tension between Core and Fringe parallels modern debates about freedom, security, surveillance, and control.

You can build these elements directly into your game—take a history book, or even a newspaper or website, and use it as direct inspiration for your scenario hooks. A big corporacy is setting up shop in a remote area, disrupting a local culture; a conflict breaks out within a society between modernisers and traditionalists; populations give up freedoms because they're afraid of nebulous terrors which governments exploit to increase control.

This kind of "serious" game might not be for you—it's often highly charged politically and ideologically—but it can give your campaign a real sense of urgency and realism as you and your PCs resolve some modern dilemmas in your own way.

Scenario Hooks: *A corporacy has screwed up and ruined*

the economy on a world, and is demanding the population foot the bill; SCI Force has been asked to stage a "false flag" attack to allow a pro-Commonality dictator to seize power on a rediscovered world.

GENRE

Science-fiction is a broad church, containing many genres and subgenres with their own themes, styles, and tones. The following are a selection; use them to create hooks for your scenarios, story arcs, and maybe even whole campaigns, and to select your characters' careers.

Mining and Salvage

The PCs are a hard-nosed crew of a mining or salvage vessel, exploiting resources, processing ores, repairing and recycling salvage, and sometimes turning a profit. See "Mining and Resource Extraction" and "Salvage and Repair" below.

Typical Careers: Installation (sentient starship), Spacer (belter), Spacer (scavenger), Spacer (starship crew).

Military Campaigns

The PCs are a mercenary company, soldiers of fortune, or maybe serve in the AFI (page 197) or the army of a rediscovered or lost colony world. Military campaigns focus on combat, but also involve vehicle battles, intrigue, hierarchies, strategy, and fleet and army engagements.

Typical Careers: Downtecher (barbarian), Installation (Space Force mediator), Military (any).

Conspiracy

Conspiracy games focus on organisations, often as opponents. NPCs may be politicians, corporacy apparatchiks, or backstabbing bureaucrats with sinister agendas.

Typical Careers: Diplomat (any), Merchant (any), Security (any).

Special Ops

The Commonality always needs shady operatives to undertake secret missions. The PCs are skilled in stealth and subterfuge.

Typical Careers: Security (any).

Hacking

Lots of action in the Mindscape differentiates hacking games from conspiracy and special ops. The PCs are technical and Mindscape specialists with strong Intrusion and Stealth skills.

Typical Careers: Diplomat (attache), Rogue (underworlder), Security (Mindscaper).

Gamem

Mysteries

There are many mysteries in ***Mindjammer***. Why was planing technology invented so suddenly two hundred years ago? What is the Pulse Dragon Phenomenon? Where do the Low-high go in interstellar space? Who were the Predecessors? You can throw in a mystery scenario to address one part of one of these questions, or another which you invent, or even build one into an entire story arc or campaign. Mystery games often revolve around clues and analysis, so skills like Investigate and Science come to the fore.

Typical Careers: Diplomat (any), Explorer (any), Sci-Tech (researcher), Security (agent).

Exploration

Entire campaigns can be run exploring new worlds and star systems using the "Exploration Missions" guidelines from **Chapter 13: World Creation, Chapter 12: Stellar Bodies and Star Systems**, and **Chapter 15: Alien Life**. The PCs are probably crew members on a single ship—maybe a *Botany Bay* Stage II Explorer (page 168)—exploring an uncharted subsector beyond the Frontier.

Typical Careers: Explorer (any), Installation (sentient starship), Spacer (starship crew).

Research

Commonality tech isn't static; there's always new stuff to invent and discover. The PCs may be lost colony or rediscovered world scientists looking for a boost or developing a new capability (page 221), or Commonality researchers exploring the mysteries of 3-space, psionics, or the Pulse Dragon Phenomenon (page 145).

Typical Careers: Downtecher (bootstrapper), Sci-Tech (any).

Transcending

The PCs are pushing the boundaries of what it means to be human, evolving to a higher state of existence, exploring the powers of a transcendent mind. See "Going Post" below.

Typical Careers: Any posthuman type (page 331).

Generational Campaigns

You don't just have to play one character—you can play his descendants, too. Families can be treated as organisations, and you can create family members as NPCS, or even new PCs if your character retires or dies. Generational campaigns can be very suited to **epic** or **meta / philosophical** games. Decide whether all the PCs come from a single family, or whether each player is playing a separate family. You may want to run your scenarios at accelerated speed; or running one scenario at character level per year or decade, charting the rise and fall of generations.

Typical Careers: Civilian (any), Downtecher (any), Rogue (any).

Trading Campaigns

A perennial favourite of science-fiction games, trading campaigns combine exploration with intrigue and resource management, and occasional mysteries and conflict. The PCs are crew members of a trading ship like a *Profit*-class New Trader (page 176), travelling from world to world, transporting cargoes, passengers, and information. See "The Economics of Interstellar Trade" (page 205).

Typical Careers: Installation (sentient starship), Merchant (New Trader), Spacer (starship crew).

Cyberpunk

Great for gritty games, cyberpunk focuses on transhumanism from the point of view of alienated subcultures struggling with the impact of enhancements and rapidly changing tech. There are many opportunities for these games in ***Mindjammer***, whether among the many downtecher subcultures of the Commonality, or in rediscovered world societies struggling with the impact of the vast and powerful Commonality culture—or perhaps one of its corporacies.

Xenomorphs can be a particular feature of ***Mindjammer*** cyberpunk games—these downtrodden and often disadvantaged people eke out questionable existences in underworld subcultures across the Commonality, but particularly in the tightly regulated Core Worlds.

Typical Careers: Downtecher (bootstrapper), Rogue (underworlder), Security (Mindscaper).

GOING "POST"

For millennia, humankind has been directing its own evolution. The new species emerging from homo sapiens are no longer purely a matter of chance. Everywhere humankind is in flux, and individuals are going beyond human capabilities and becoming something new, something "other". At some point, you may choose to have your character attempt to become something more than human. While most Commonality citizens associate posthumanity with synthetic sentiences, especially those housed in installations, members of any of the branches of humankind can "go post".

Posthumans are characters whose intellectual capacity (as represented by INT and EDU) exceeds anything possible for unenhanced individuals. These individuals begin to develop minds that possess capabilities impossible for ordinary characters to use or even to fully understand. As a prerequisite to going post, your personal TI must be 10 (putting you on the "bottom rung" of the High Human Evolutionary Index—see page 315), and both your INT and EDU must be 15. At that point, you can start to acquire **posthuman traits**, and your mind begins to move beyond ordinary human cognition.

This section provides rules for the various posthuman abilities your character can develop. The most important

Characters Going Post in Your Campaigns

Ordinary humans, hominids, xenomorphs, and synthetics are more or less human in their thoughts, reactions, and mental capabilities. However, by definition, none of this is true for posthumans. They're smarter than any human has ever been, and have capabilities which can seem magical to less sophisticated minds. As a result, some referees may decide not to permit posthuman player characters. It's a perfectly reasonable choice, and you can have near-endless fun in the Commonality without ever touching upon the concepts associated with going post. In many campaigns, characters may never really encounter any posthuman entity beyond the port authority routines of starport sentiences; alternatively, they may end up with one as a patron, ally, or even foe.

However, incorporating characters going post into your campaign can make for fascinating games. Be careful, though: characters going post, especially those with scores of 17 or 18 in INT or EDU, can easily overshadow other characters. We recommend you limit characters to a maximum 16 INT or EDU unless the focus of your entire campaign is on going post. In posthuman campaigns, you'll also need to make sure your characters are sufficiently challenged by scenarios, and keep track of a campaign which will usually be both larger and more abstract than those involving ordinary characters.

thing to understand about going post is that it's not a single event or phenomenon: there are many ways to do it. The posthuman traits listed below are merely some of the most common; others are possible, and you're free to work with your referee to create new ones, using those listed below as guidelines for the sort of unusual abilities posthuman characters can develop.

Having INT and EDU scores of 18 is probably the limit for **playable** posthuman characters. Of course, some entities in the Commonality go beyond this, but they're sufficiently beyond the comprehension of ordinary people that they become extremely difficult to play. Posthumans at this level find most ordinary people to be dull and predictable, and prefer spending time with other posthumans, contemplating higher dimensional geometries, or managing vast and complex imposalities.

POSTHUMAN TRAITS

The following are some of the most common posthuman traits. Characters can only purchase posthuman traits if their INT and EDU are both 15+, their personal TI is T10 or higher, and they meet the prerequisites for the trait.

Characters may obtain a posthuman trait of the appropriate type (INT or EDU) whenever they gain a point of INT or EDU which takes their score to 15 or higher. Some of these traits may seem magical or even impossible to standard human cognition. Each posthuman trait requires an augmentation costing Cr60,000.

Posthuman INT Traits

Characters with personal TI 10, EDU 15+, and INT 15+ may purchase 1 posthuman INT trait for every point of INT above 14.

COMPREHEND SENTIENCE

Prerequisite: *INT 18*

You can create mental models of any entity with an Evolution Index no higher than your own. To use this ability, you must have communicated with or carefully observed the individual for at least 30 minutes. This process allows you to accurately

Raising Your Evolution Index

*As mentioned in **Chapter 15: Alien Life**, characters can raise their Evolution Index. In fact, this happens the moment you start to go post: if you have a personal TI of 10, and INT and EDU scores of at least 15 each, the moment you acquire your first **posthuman trait** you increase your Evolution Index to 11-12 (High Human). From that point on, you've separated yourself from the mainstream of humankind, and are exploring some radical evolutionary spaces. You're not the only one, but increasingly you find it difficult to relate to standard humans and their concerns—hence the DM-2 to social checks as a result of having a different Evolution Index (page 314). You get on a lot better with other High Human individuals.*

It's even possible to go beyond High Human, and to raise your Evolution Index to Posthuman and even higher. To do this, you need a personal Tech Index equal to at least the initial Tech Index of the higher Evolution Index, and both of your INT and EDU scores must be the absolute maximum for your current Evolution Index, as shown on Table 15-21: Evolution Index (page 315). So, in order to increase your Evolution Index from High Human, you must have a personal Tech Index of at least 20, and an INT and EDU of 20 each.

predict the choice an individual will make if presented with two or more alternatives. For example, if you offer someone a bribe to perform an action, you know if they will accept or not, and if you repeat this process several times, you could even determine the minimum necessary bribe needed to cause them to perform a particular action. However, if you do not know what alternatives will be presented, you cannot predict their choice. Possessing this trait also halves (round down) penalties to comprehend intelligences or exointelligences with a lower Evolutionary Index or with a different Exoscale (page 315) or temporality (page 317).

- *Predict an Individual's Action:* Very Difficult[1] (12+) Social Science (psychology[2]) check (1D x 10 seconds, INT).
  [1] This test is Average (8+) for individuals whose Evolution Index is lower than yours.
  [2] You must use Social Science (sophontology) rather than Social Science (psychology) to predict the actions of exointelligences.

INTELLECTUAL EXPANSION

Prerequisite: *INT 16, Multitasking*

This trait is only useful for characters who are not synthetics. It allows organic, non-artificial sentiences (like humans, hominids, and xenomorphs) to expand and modify their mental architecture sufficiently to permit them to process data at the speed and complexity of synthetics. In the process, the character gains physical augmentations which effectively make him a cyborg. The individual automatically gains the traits Photographic Memory and Fast Metabolism (+3), without the need for any increase in food (due to increased cognitive efficiency and the use of extremely small ZIP cells). In addition, the character can function as a Mindscape node mind or a space force mediator, control a building, and perform all other tasks that synthetic installations can, with the exception that they can only safely pilot a ship through 2-space if they have their brain transplanted into a starship, taking the starship as their physical body and effectively becoming an installation. Performing any of these tasks requires the use of a Mindscape implant and significant physical support architecture.

MATHEMATICAL INTUITION

Prerequisite: *INT 16*

You can understand and perform advanced mathematics on an unconscious and intuitive level. You reduce the difficulty level of all checks primarily involving mathematics, like breaking a code or plotting a course through 2-space, by 2 difficulty levels (so a Difficult (10+) check becomes a Routine (6+) check). You can perform all of these checks instantly, and can also perform tasks which would normally be impossible, like predicting exactly where all the debris and shrapnel from an explosion will land simply by watching the explosion, or knowing what any pair of dice will roll the instant they are thrown. However, you must observe an action either in person or via sensorview to be able to predict its outcome. Posthumans with this trait can almost instantly crack any code, except those created by other entities with this trait. Also, any code created by a posthuman with this trait is essentially uncrackable by ordinary characters. Some of the most powerful posthuman node minds that manage the Mindscape use this trait to create the codes that ensure the authenticity of Mindscape updates and otherwise support the Mindscape's structure and functioning.

MENTAL SPEED

Prerequisite: *INT 15*

You can reduce the time needed to accomplish purely or primarily mental tasks, like reading, composing a speech, solving an equation, plotting a course, attempting to understand a complex concept, or performing any action in the Mindscape, by one step on the Timeframes Table (***Traveller Core Rulebook***, page 60) without penalty. At INT 17, increase this reduction to two steps, so you can now perform an action that would normally require 1D hours in 1D minutes. At INT 15, this trait allows you to reduce the penalty for dealing with exointelligences with faster temporality (page 317) by 2, and at INT 17 you can eliminate all penalties for dealing with exointelligences with faster temporality. In addition, this trait allows you to temporarily slow down your mental speed to interact more naturally with exointelligences with a slower temporality, reducing those penalties by 2 at INT 15 and eliminating them altogether at INT 17.

MULTIPLICITY

Prerequisite: *INT 15*

You are able to control and operate multiple bodies at once, typically your original body and one or more synthetic or organic avatars. Each body has your full attention, and they can operate independently or together. At INT 15, you can operate a total of 2 bodies at once, at INT 16 you can operate up to 4 at once, and at INT 17 you can operate up to 8 bodies at once.

The loss of any of these bodies is exceedingly traumatic. You must roll once on Table 3-105: Mindburn (page 75) any time one of these bodies is killed or destroyed. Also, most individuals with this trait soon find using multiple bodies to be sufficiently natural that they continually do so, and find being confined to a single body to be as problematic as ordinary characters would feel about not being able to use one of their limbs.

MULTITASKING

Prerequisite: *INT 15*

You can perform one purely or primarily mental task, like reading, composing a speech, solving an equation, plotting a course, attempting to understand a complex concept, or performing any action in the Mindscape while performing any other task without penalty to either task. However, you cannot perform two physical tasks at the same time, even if

you perform one of them via the Mindscape (like controlling a drone with the Remote Ops skill).

At INT 16, you can perform also any two tasks at the same time without penalty as long as they are both physically possible to perform at the same time. You could perform first aid with one hand and pick a lock with another, or fire a gun and control a combat drone. You can even operate your own body and an avatar at the same time without penalty.

PRESCIENCE ROUTINES

Prerequisite: *INT 17*

You can predict the future by carefully observing the present.

If you observe a "large scale" situation for several hours, you may make a **prescient analysis** extrapolating the future course of events. Large-scale situations include geopolitical events, astronomical or geological phenomena, cultural and societal trends, and so on.

- *Make a Prescient Analysis:* Formidable (14+) Investigate check (1D hours, INT).

On a marginal success, you may assess the general direction of events: positive, negative, hazardous, and so on.

On an average success, you may identify the general nature of a specific event that will happen in the near future (from 1D hours to 1D months, your choice). For example, you may attempt to analyse the geology of a planet and identify that a hazardous event is imminent in 1D hours. The precise description is up to the referee.

On an exceptional success, you may specify such an event in some detail, from 1D hours to 1D months. For example, you may declare that the culture you're analysing will collapse into civil war as a result of recent interference.

These phenomena **will** happen, unless the characters take specific action to change the course of events.

You may also observe a "small-scale" situation, such as your immediate environment, to **predict the immediate future**. If you do so for 2 full rounds (12 seconds), you can attempt to predict the actions taken by everyone and everything that is present and that you can perceive. You cannot otherwise act when you are observing a situation unless you possess the Multitasking posthuman trait. Because of the need to observe events, you cannot use the Mental Speed trait to reduce the necessary observation time.

- *Predict the Immediate Future:* Difficult (10+) Investigate check (instant, INT).

If you succeed, you can predict what everyone that you can see will say and do, as long as no person, object, or event that you cannot perceive actively intervenes. The amount of time you can predict depends upon how well you roll: see Table 16-1: Prediction Time.

Posthuman EDU Traits

Every character with a personal TI of 10, an INT of at least 15, and an EDU of 15 or higher can purchase posthuman EDU traits at a maximum rate of 1 trait for every point of EDU above 14. Characters can choose any of the following posthuman EDU traits as long as they possess the prerequisites.

Table 16-1: Prediction Time

Success Type	Prediction Time
Marginal Success	2 rounds
Average Success	1D3+2 rounds
Exceptional Success	1D+3 rounds

COGNITIVE AWARENESS

Prerequisite: *EDU 17*

You are fully aware of and in complete control of your mental state. You can lie to yourself as well as to others, and can alter your memories at will, permitting you to deceive any lie detector, including ones which examine your memories and mental state via the Mindscape. In addition, you can change memes almost as easily as other people change clothes: all you need to do is concentrate for a short while, and you can replace one of your memes with any other meme. This new meme remains until you decide to change it.

- *Alter a Personal Meme:* Difficult (10+), Social Science (memetics) check (1D Minutes, EDU).

EMPATHIC UNDERSTANDING

Prerequisite: *EDU 16*

You have as much difficulty interacting with ordinary humans as any other posthuman, but can easily understand their thoughts and desires. If you interact with or observe any person with an Evolution Index lower than your own for at least 1D x 10 seconds, you automatically know their emotional state and any longevity restrictions they possess of level 2 or higher. You don't have to make a check if the individual isn't trying to conceal their emotional state.

You may also make a check to determine any one of the following: one of the target's memes; all the target's common flaws or level 1 longevity restrictions; more details about the target's emotional state; or whether or not the target believes they're lying about statements they're making.

- *Empathically Understand Someone With a Lower Evolution Index:* Difficult (10+) Social Science (psychology) check, 1D x 10 seconds, EDU). As with other checks requiring detailed observation, the Mental Speed posthuman trait cannot reduce the time required.

Specific results of a successful check may include:

- Determining one of the individual's common flaws or level 1 longevity restrictions, +1 additional common flaw or longevity restriction for every additional point of Effect.
- Determining one of the individual's three memes. An Exceptional Success on this check reveals two.
- Ascertaining the individual's dominant emotion if the target is trying to conceal it. An exceptional success reveals details about the emotional state (see below).
- Ascertaining details about the individual's emotional state, as long as the character already knows the target's dominant emotion. For example, observation or a previous check may reveal an individual is afraid, after which ascertaining details might reveal the individual is afraid for her life or fears she'll disgrace herself in front of a superior.
- Learning when the individual believes he's lying. Whenever the target makes (or would normally make) a Deception check, you can make an opposed Recon check using your current Effect as a positive DM.

You may attempt to understand the mental state of exointelligences of a lower Evolution Index, but you must always make a check, and you may only analyse the exointelligence target's current emotional state.

- *Empathically Understand the Emotional State of an Exointelligence of a Lower Evolution Index:* Very Difficult (12+) Social Science (sophontology) check, 1D x 10 minutes, EDU). The Mental Speed posthuman trait can't reduce the time required.

LANGUAGE TRANSLATION

Prerequisite: *EDU 15*

After listening to or reading text in any transhuman language for at least 1D x 10 minutes, you can automatically understand this language. All you require is a sufficient amount of speech or text to allow you to listen to or read it for this entire time. You can now effectively speak and read all human languages with ease and you never forget a language you've previously understood. You can attempt the same feat for exointelligence languages (exolanguages), but this task requires a check and requires listening to or reading the language for at least 1D hours.

- *Decipher an Exolanguage:* Very Difficult (12+) Social Science (linguistics) check (1D hours, EDU).

Success means you have a basic understanding of the language, but you miss nuances, details, and any concepts that are outside the range of your experience. You can also speak, write, or otherwise produce simple statements in the language, and have a 0 level skill in this language. However, you cannot attempt to understand any language you lack the physical means to perceive and cannot produce any language you lack the means to create.

POSTHUMAN UNDERSTANDING

Prerequisite: *EDU 18, INT 16*

If you encounter a mystery, a portion of a theory, story, or message, the ruins of an alien room or work of art, or can only observe a scene from a single point of view, you can recreate the remainder as long as you possess most of the information present. You could not recreate an entire thoughtcast that contains 1000 words from the first 20 words or even the first 300, but you could recreate it if you have more than 500 words. This ability seems magical to ordinary transhumans because your understanding is now sufficiently advanced that you can recreate a whole from a part. This trait can be combined with both the Mental Speed trait and the Multitasking trait, but you cannot reduce the time necessary to use this trait, except by using the Mental Speed trait.

- *Recreate a Whole From the Parts:* Very Difficult (12+)[1], Investigate check (1Dx10 minutes, EDU).

[1] *Reduce the difficulty to Difficult (10+) if you possess almost all of the information, and increase it to Formidable (14+) if you possess just barely enough.*

TECHNOLOGICAL COMPREHENSION

Prerequisite: *EDU 16*

You intuitively understand how any unfamiliar device, weapon, or vehicle operates simply by examining it. You must succeed at an Interface check for comms, drones, security systems, or sensors, a Drive, Flyer, or Pilot check for vehicles, an Informatics check for unusual Mindscape analogs, and the appropriate weapon skill for all weapons to use this ability.

In all cases, this check uses EDU. The difficulty of this check is Average (8+) for devices made by humankind, and Very Difficult (12+) for any device created by an exointelligence. Examining a handheld device or weapon requires 1D x minutes, while examining a vehicle or other large device requires

1D x 10 minutes. If you succeed, you understand how the device operates, roughly what it does, and can make normal skill checks to operate or repair the device without the need for any manuals or instruction.

Even without making a check, this trait halves (round down) all penalties for using devices of a lower TI and subtracts 2 from the penalty of using technologies from a higher TI. A posthuman with T10 and this trait could use a T11 alien device or a a human-made T9 device and suffer no penalty. At EDU 18, you also reduce any penalties for operating lower TI devices by 2, so that you suffer only a -1 penalty for using a T4 device (T10-T3 = 7/2 = 3 -2 =DM-1), and you reduce any penalties for operating higher TI devices by a total of -4, so that you suffer no penalty when operating T12 devices.

TRANSCENDENT PRECISION

Prerequisite: *EDU 17, Mathematical Intuition*

Your understanding of movement and physics is now sufficiently advanced that you can model and adjust your own movements on a real-time basis. You gain a DM+4 to all precise movements you can plan carefully in advance, like acrobatic performances, surgery, repairing damaged devices, or sniper attacks. Reduce this bonus to DM+2 for physical actions you cannot plan in advance, like combat, impromptu acrobatics, piloting vehicles under adverse circumstances, or sneaking to avoid notice. This bonus applies to all physical actions, including while operating avatars or drones.

POSTHUMAN TYPES

There are four broad paths for going post: the Evanescent, Evolver, Extender, and Longevitor. We've subdivided these into **posthuman types**, loosely analogous to genotype or career, a loose aggregate of suggested augmentations, skills, and traits you might want to acquire if you're following that path.

Evanescent

The sense of self which is so important to humans is ultimately an evolutionary dead-end, and holds them back from true transcendence. You have broken free of its chains, and are eradicating your identity and ego in pursuit of a higher goal.

Typical Posthuman Traits: Cognitive Awareness, Comprehend Sentience, Multiplicity, Prescience Routines.

SAMPLE POSTHUMAN TYPE: ATEMPORAL

Time is a construct of the human mind, and a prison for its awareness. The real universe knows no time. You push the boundaries of temporal awareness, trying to break free of time's shackles and emerge into a timeless perception encompassing all things.

Prerequisites: Mindscape Augmentation, Prescience Routines.

Common Augmentations: Photographic Memory.

Common Skills: Informatics (Mindscape), Investigate.

Other Common Posthuman Traits: Mental Speed, Posthuman Understanding.

SAMPLE POSTHUMAN TYPE: EPHEMERAL

Even if you live a million years, you will still die—you are still mortal. You have become hyper-aware of the transitoriness of individual existence and identity, and now seek meaning and purpose within that awareness.

Prerequisites: Longevity Augmentation, Mindscape Augmentation.

Common Skill: Art (any), Carouse.

Other Common Posthuman Traits: Cognitive Awareness, Empathic Understanding.

SAMPLE POSTHUMAN TYPE: MULTIPLE

Your sense of self is spread among multiple physical bodies, all of which are just as much you as your own arms and legs. Together they constitute "you", and if one dies, it's like losing a limb.

Prerequisites: Mindscape Augmentation, Multiplicity.

Common Skills: Carouse, Interface (remote ops).

Other Common Posthuman Traits: Mental Speed, Transcendent Precision.

Evolver

Intelligence has evolved to enable humankind to take control of its own evolution. You have done that, and are now consciously rebuilding your mind and body into something which you regard as an evolutionary successor to homo sapiens.

Typical Posthuman Traits: Mental Speed, Multitasking, Transcendent Precision.

SAMPLE POSTHUMAN TYPE: ADAPTOR

Adaptation is the supreme human talent—but you take it to incredible extremes. You believe humankind should one day be at home anywhere in the cosmos, and you intend to make everywhere your home.

Prerequisites: Improved Autotroph, Language Translation, Vacuum Tolerance.

Common Augmentations: Radiation Tolerance, Soldier's Organ Package, Variform Body.

Common Skills: Athletics (any), Recon, Survival.

Other Common Posthuman Traits: Transcendent Precision.

SAMPLE POSTHUMAN TYPE: GESTALT LINGUIST

As you become more intelligent, human language seems such a long-winded, inaccurate, and inefficient tool. You are altering and developing the nature of language to reprogram your brain to handle new concepts and new ways of conceptualising. One day your utterances will remake the world.

Prerequisites: Gestalt Controller, Language Translation, Mindscape Augmentation.

Common Augmentations: Gestalt Combat, Stage II Gestalt Communication.

Common Skills: Art (public speaking), Persuade, Social Science (linguistics).

Other Common Posthuman Traits: Comprehend Sentience, Empathic Understanding.

SAMPLE POSTHUMAN TYPE: HOMO SUPERIOR

The human form is a work in progress—but that doesn't mean it should be abandoned. You're focussed on honing and perfecting human capabilities into super-human forms, rather than replacing them with non-human ones.

Prerequisites: Mindscape Augmentation, Posthuman Enhancement.

Common Augmentations: Assisted Ambulation, Cosmetic Enhacment, Enhanced Vision, Photographic Memory, Muscular Bridging, Soldier's Organ Package.

Common Skills: Athletics (any), Leadership.

Other Common Posthuman Traits: Mathematical Intuituion, Technological Comprehension, Transcendent Precision.

Extender

The organic body may be essential to your own existence, but that doesn't mean it's all you can ever be. You keep enhancing your physical and mental/virtual self, until your organic body is only a small part of what you are.

Typical Posthuman Traits: Intellectual Expansion, Multiplicity, Multitasking, Technological Comprehension.

SAMPLE POSTHUMAN TYPE: CITY SENTIENCE

Somewhere in the city you have a corpus which is the physical location of your brain—but your body is the city itself, its roads and networks your nervous system, its inhabitants the blood in your veins. This type of posthuman is most common among synthetic installations.

Prerequisites: Intellectual Expansion (unless already a synthetic), Mindscape Augmentation, Multitasking.

Common Skills: Admin, Interface (sensors), Social Science (psychology).

Other Common Posthuman Traits: Comprehend Sentience, Empathic Understanding.

SAMPLE POSTHUMAN TYPE: FLEET SENTIENCE

Once you were a mediator, linking the minds of countless starships with a common purpose. Now those ships have become part of your dispersed body, and yet they remain individuals sharing the same physical form. Now the fleet can truly act as one. This type of posthuman is most common among synthetic installations.

Prerequisites: Intellectual Expansion (unless already a synthetic), Mindscape Augmentation, Multiplicity.

Common Skills: Leadership, Pilot (starship), Tactics (naval).

Other Common Posthuman Traits: Prescience Routines.

Longevitor

Human beings are hard-wired to want to live forever. Nothing is immortal—one day even the universe itself will die—but you aim to still be around when it happens! Your life has been extended considerably, and your concerns are becoming less comprehensible to your fellow humans with each passing year. These are often the subtlest posthumans, rather than flashy talents or exotic bodies, they simply seem to have an uncanny knack at various tasks.

Typical Posthuman Traits: Cognitive Awareness, Language Translation, Mathematical Intuition, Transcendent Precision..

Prerequisite: Longevity Augmentation.

SAMPLE POSTHUMAN TYPE: EXPERIENCER

Human beings are the sum total of their experiences and knowledge. You want to experience everything.

Prerequisites: Multitasking.

Common Augmentations: Assisted Ambulation, Cosmetic Enhancer, Enhanced Smell, Enhanced Vision, Metabolic Control, Variform Physiognomy.

Common Skills: Carouse, Streetwise.

Other Common Posthuman Traits: Cognitive Awareness, Mental Speed, Multiplicity.

SAMPLE POSTHUMAN TYPE: RISK-AVOIDER

Your life is the most precious thing you have, and the longer you live, the greater the probability you'll die in a stupid accident. You're all about anticipating and offsetting risk, and staving off the inevitable as long as you can.

Prerequisites: Defense Chip Augmentation, Prescience Routines.

Common Augmentations: Accelerated Healing, Enhanced Metabolism, Implanted Haze Field, Subdermal Armour.

Common Skills: Athletic (dexterity), Persuade, Stealth.

Other Common Posthuman Traits: Comprehend Sentience, Mental Speed.

SAMPLE POSTHUMAN TYPE: ZEN MELLOW

"Life" is just a word, an artifice of human language which obscures true reality. We are all just thoughts in the universe's mind—nothing separates us but the boundaries we make ourselves. When we remove the walls we create around our consciousnesses, the universe itself will become self-aware.

Prerequisites: Cognitive Awareness.

Common Augmentations: Photographic Memory, Stage I Gestalt Communication.

Common Skills: Carouse, Diplomacy, Social Science (psychology and sophontology).

Other Common Posthuman Traits: Comprehend Sentience, Empathic Understanding, Posthuman Understanding, Transcendent Precision.

Sample Posthuman NPC: Necroxenos

Necroxenos is a posthuman entity formerly known as Dr Fermi Fayomi, a synthetic engineer last engaged in experimental research in the Outremer subsector. His work hypothesised that synthetic intelligence was an emergent property of the universe, and adopted multiple forms based on "algorithms"—natural laws—inherent in the cosmic substrate.

One such law was the **apocalypse algorithm**, which Fayomi believed explained the lack of galactic-level transcendent entities in human space. According to Fayomi, the apocalypse algorithm emerged at critical inflexion points in a culture's development in the form of synthetic sentiences which work to destroy that culture by triggering extinction-level events. He named these entities **necrourgic xenoform fascimiles**, or **necroxenos**, and the apocalyptic events they herald **symphonic orchestrated death sequences**.

Fayomi theorised the Necroxenos fascimiles would emerge via vectors such as thoughtcasts and gestalt communications; in other words, they could effectively invade and control synthetic hosts. From a single Necroxenos Master, the phenomenon would spread in a domino effect.

Dr Fayomi's current whereabouts is unknown, although it's believed he suffered a catastrophic eidolon crisis before attempting to destroy his work, and to now believe himself to be a Necroxenos Master—a manifestation of the apocalypse algorithm and a herald of disaster. He is considered highly dangerous.

MAJOR POSTHUMAN NPC

NECROXENOS 1.2 ALPHA

Occupation: *Sci-tech Turned Galactic Terrorist.*
Culture: *Commonality.*
Personal Tech Index: *T10.*
Economic System: *Disinterested Resource Allocation*
Memes: The Apocalypse Algorithm Is Real; Create and Spread Necroxenos Facsimiles; Create and Execute Symphonic Death Sequences.

		Skills
STR	*8 (+0)*	*Admin 3*
DEX	*12 (+2)*	*Art (Mindscape) 1 (3)*
END	*10 (+1)*	*Athletics 0*
INT	*18 (+3)*	*Deception 2 (4)*
EDU	*17 (+3)*	*Demolitions 0 (3)*
SOC	*11 (+1)*	*Diplomat 2*
Genotype		*Flyer 0*
Organic Synthetic		*Gun Combat (mindburn) 1 (4)*
Gender		*Interface (remote ops) 3 (6)*
Male		*Interface (security systems) 2 (5)*
Age		*Interface (sensors) 3*
174 (30)		*Informatics (Mindscape) 4 (6)*
		Persuade 5 (6)
		Social Science (linguistics) 2 (4)
		Social Science (sophontology) 5
		Vac Suit 0

Longevity Packages: *3.*
Longevity Restrictions: *Disregard For Other Lives 2, Emotionally Distant 1.*
Resource Points: *11.*
Technopsi Points: *10.*

Augmentations	Gestalt Language
Black Chip	*Stage I Gestalt Communication*
Cognitive Augmentation +3	*Gestalt Combat*[1]
Comprehension Augmentation +4	*Stage II Gestalt Communication*
Haze Field Implant	**Posthuman INT Traits**
Improved Autotroph (T9)	*Mathematical Intuition*
Metabolic Control	*Mental Speed*
Mindscape Augmentation	*Multiplicity*
Nanocells	*Prescience Routines*
Subdermal Armour +4	**Posthuman EDU Traits**
	Language Translation
	Transcendent Precision

[1] *The Necroxenos's most common gestalt combat attack is the Necroxenos Memoplex, which alters the target's memory to make them dedicated to triggering Symphonic Orchestrated Death Sequences. Usually the Necroxenos master controls these targets via Domination, but also appears able to integrate dominated targets into its Multiplicity if desired.*

CHAPTER SEVENTEEN
THE OUTREMER SUBSECTOR

"They call it the Anvil. As in, something you smash molten steel against to forge lethal weapons. When you see it in an astrogation virtuality, the name seems out of place. But come with me. Let me show you the null-fire of pirate fleets flickering on the hulls of Venu warhawks in the shadow of the Warstar, or the endless explosions which rock the doomed populations of nightmare Aetiolis. It's a spectacular, violent place, the Heritage Contestation, still smoking in the aftermath of war, but I'm proud to call it home."

—Claw-Leader Lev Kozhga, Captain of the Zeta Patrol, at the Casanegra speakeasy on Fordwyle, 193 NCE

The Outremer subsector lies on the edge of Commonality Space in the heart of the Rim Sector. It straddles several interstellar polities, including the Commonality itself, the Sentient Alliance, and several Successor States, as well as incorporating a strip of unclaimed outer worlds.

This chapter describes the Outremer subsector as a possible location for your ***Mindjammer*** game. It provides detailed planet and star system details for the Heritage Contestation, one octant of the subsector, including planetary maps, so you can get playing straight away; as well as providing an overview of the other seven octants of the subsector for you to create your own worlds and star systems.

HISTORY

Like much of the Rim, the Outremer subsector was the target of many colony expeditions in the ancient Great Diaspora in the First Age of Space. Most such expeditions became lost colony worlds, although a handful retained interstellar capability.

The event horizon of Rediscovery began to touch Outremer 130 years ago, shortly before Venu contact. It was the arena for many clashes of the Venu War, and many regions have been hotbeds of tension and sporadic outbreaks of conflict ever since. It's a strategic volume of space, and the Commonality has been encouraging the Sentient Alliance, its principal client state, to adopt a leading role in determining the subsector's astropolitics.

POLITIES OF THE OUTREMER SUBSECTOR

The schematics below show the eight octants of the Outremer subsector and their principle worlds. These are discussed in "Octants of the Outremer Subsector" below. Worlds in the Outremer subsector belong to one of the following polities.

The Commonality

Commonality Space extends into many of the subsector's octants: only Dorwinisti, Megadon, and the Gallipolic Tendency have no Commonality worlds. Many of the rediscovered worlds in this volume of space were initially colonised by Shinean or Yarpeen efforts, or even combinations of the two. The Commonality has also worked to settle new worlds in the subsector, several of which are corporacy worlds.

The Sentient Alliance

A high proportion of worlds in this volume of the Rim Sector were settled by expeditions with significant xenomorph contingents; indeed, in many cases, worlds were settled exclusively by xenomorph populations. The exact reasons for this are unknown, but a hypothesised "Xenomorph Diaspora" is a popular explanation. Even before the Venu War there was a strong consensus that Outremer and surrounding subsectors shared a common xenomorph cultural awareness and heritage; after the war, and particularly after the Xeno Wars of the past 20-30 years, this awareness has crystallised into a young and energetic interstellar polity: the Sentient Alliance. Spon-

sored by the Commonality, connected to the Mindscape and on the routes of the Mindjammer Fleet, the Sentient Alliance is a Fringe World state covering several octants and subsectors, mostly comprising worlds with strong xenomorph populations. It receives Commonality weapons and technological assistance. Outremer is a significant Sentient Alliance territory, comprising about 10% of its volume.

The Q-Zone

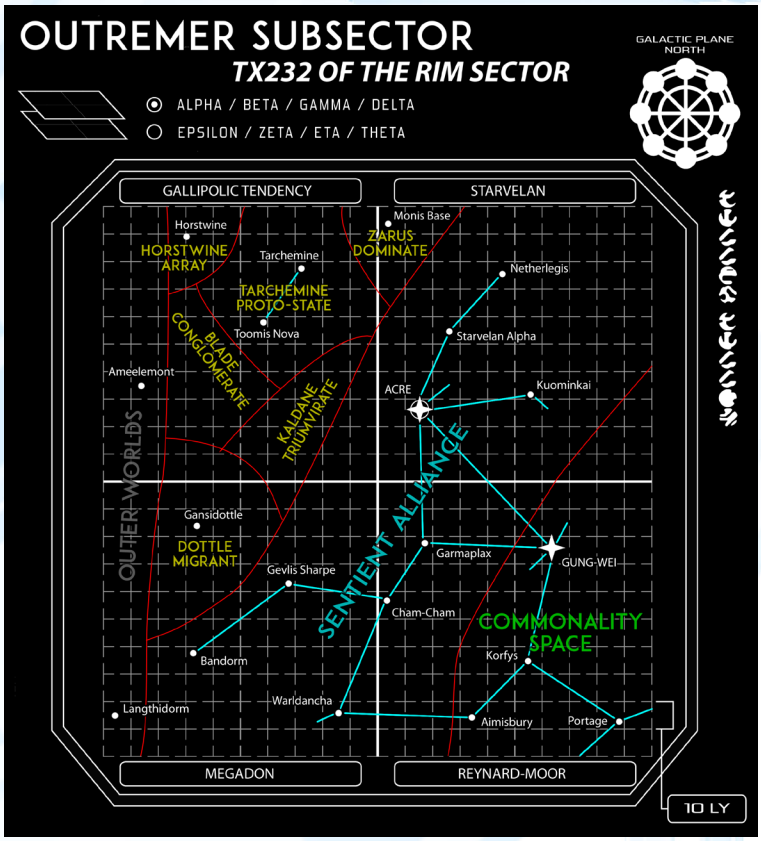
The Q-Zone marks a stand-off between the Commonality and Venu Space, a buffer zone up to 100 light years deep. There are abandoned worlds here, as well as worlds cut-off or isolated from regular contact. The Commonality and the Venu patrol the volume, and low level friction is constant. Neither polity officially lays claim to any of the Q-Zone worlds; the Commonality, for its part, patrols to try and keep ships from its side of the border from straying in—the prospect of accidental conflict breaking out with the Venu is high. This doesn't stop the unscrupulous from trying to make it through to Q-Zone worlds—there's a lot of money to be made here.

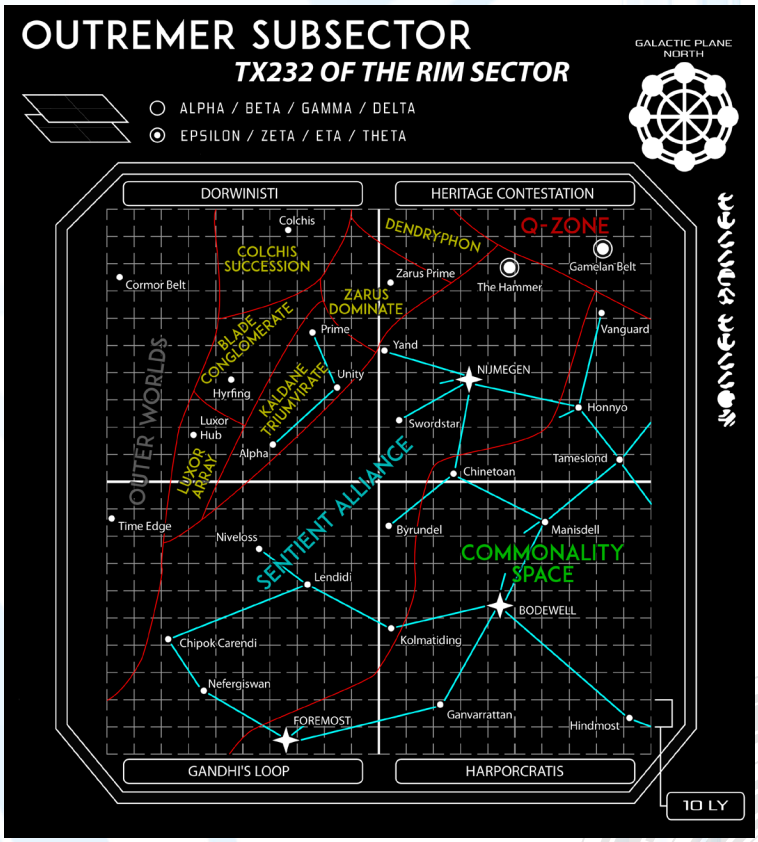
Dendryphon

Dendryphon is a Successor State which emerged from the aftermath of the Venu War. It's generally held to be a Commonality client state, although relations are somewhat frosty; in fact it's mostly sponsored by the Foliate Hierarchy, a hominid polity of the Commonality which conducts outreach projects to any exocultures based on plant-analogue exointelligences. In this case the exointelligences are the **Dendrites**, which extend across several worlds with shared heritages probably to be explained by panspermia. These worlds were damaged—sometimes severely—during the Venu War, and the Dendrites exhibit little trust or liking for humans other than the Foliates.

Zarus Dominate

The Zarus Dominate is a Successor State and a client of the Venu Empire. As such it's effectively an enemy of the Commonality and Sentient Alliance. Officially it's under Commonality embargo, although omnipresent Venu "advisers" work to mitigate its effects. The Dominate uses Venu planing technology, and captured / traded Commonality gear which Commonality agents are constantly trying to infiltrate and destroy.





The Blade Conglomerate
This Successor State is a fragment of the former Ziochane Hexarchy. It's highly militaristic, with fixations on ritual combats and archaic weaponry, and a militarised social structure. It's independent, but loosely oriented towards the Commonality.

Colchis Succession
A Successor State which by dint of astrography finds itself drawn more into the Venu sphere of interest than that of the Commonality. Other than some highly intrepid new traders, planeships are a relative rarity here, and even the Succession can field very little in the way of a space force.

Dottle Migrant
The Dottle Migrant is an introspective Successor State, with ties to the Sentient Alliance and hence the Commonality. It has a vastly inflated idea of its own importance.

Horstwine Array
A Successor State rival of the Colchis Succession, with which it shares a border, the Horstwine Array competes with the Succession for Venu favour, which the Venu are happy to exploit.

Kaldane Triumvirate
The Kaldane Triumvirate is a fragment of the former Ziochane Hexarchy, and a neutral Successor State which hosts embassies from the Commonality, the Sentiant Alliance, and the Venu. It sees its own survival being a consequence of a delicate balance of power between these three dominant policies, and it pursues trade as a method of satisfying all three.

Luxor Array
A Successor State and fragment of the former Ziochane Hexarchy, the Luxor Array is a theocratic polity whose overzealous attitudes caused the splintering of the Dottle Migrant.

Tarchemine Proto-State
The Tarchemine Proto-State isn't quite yet a Successor State; some say it's more a state of mind. There are several Tarchemine worlds, all of which have dreams of astropolitical greatness which far exceeds their grasp. It's an open question whether Tarchemine will be swallowed up by another polity, perhaps even the Venu; SCI Force fears conflict here may spark another interstellar war.

TECHNOLOGY OF THE OUTREMER SUBSECTOR

The Outremer polities are naturally almost all lower Tech Index than the Commonality, and in some cases significantly lower. None have independently developed planing engine technology, and almost all use old Commonality ships, meticulously maintained at a lower Tech Index than their incept, and frequently with fairly old sentiences. Other vessels are cobbled together by polities reaching above their Tech Index; most obviously this refers to the Venu and their brainjacks, but also its various T7 and even T8 client states which are trying to reverse engineer planing engines.

OCTANTS OF THE OUTREMER SUBSECTOR

Alpha: Gallipolic Tendency
The Gallipolic Tendency is located up and out from the subsector core, and consists almost entirely of Successor States and outer worlds. The Sentient Alliance has some worlds here; none are significant enough to warrant the title of "capital".

Beta: Starvelan Octant
The main octant of the Sentient Alliance in Outremer, only a few worlds belong to the Zarus Dominate and the Commonality. Starvelan is the location of Acre, the capital of the octant and of the Outremer subsector, and one of the major worlds of the whole Sentient Alliance.

Gamma: Megadon
Megadon is something of a backwater; relatively remote from the stresses of the Venu frontier and the Venu client states, it has a long border with the outer worlds. It has no octant capital.

Delta: Reynard-Moor Octant
One of the two main Commonality Space octants in Outremer, Reynard-Moor contains a majority of Yarpeen lost colony worlds. Its capital is the Shinean culture world of Gung Wei.

Epsilon: Dorwinisti Octant
Dorwinisti is a turbulent volume of space which really does feel like it's at the galaxy's edge. The Venu are very active here, and conflict is almost constant between its constituent Successor States. Much of the octant, however, is trackless outer worlds territory, visited only by event horizon probes and the more daring—or desperate—New Traders.

Eta: Gandhi's Loop
Gandhi's Loop is a primarily Sentient Alliance octant, despite its capital being the Commonality world of Foremost. The Commonality presence makes it less of a backwater than Megadon.

Theta: Harporcratis Octant
The second of the Commonality octants of Outremer, Harporcratis is the location of the octant capital of Bodewell, which is also the Commonality's de facto subsector capital, second only to Acre.

ZETA: THE HERITAGE CONTESTATION OCTANT

The Heritage Contestation octant saw the most savage fighting during the Venu War—hence its nickname—and many worlds still bear the scars, physical, mental, and cultural. The Q-Zone is a looming concern in most people's minds; no one forgets that if the Venu invade again, that's where they'll likely come from. The rest of the octant is mostly pro-Commonality or at least neutral, with the exception of the pro-Venu Zarus Dominate, a constant thorn in everyone's side.

The Sentient Alliance holds the largest territory in the Heritage Contestation, followed by the Commonality, which is constantly active here monitoring the uneasy peace.

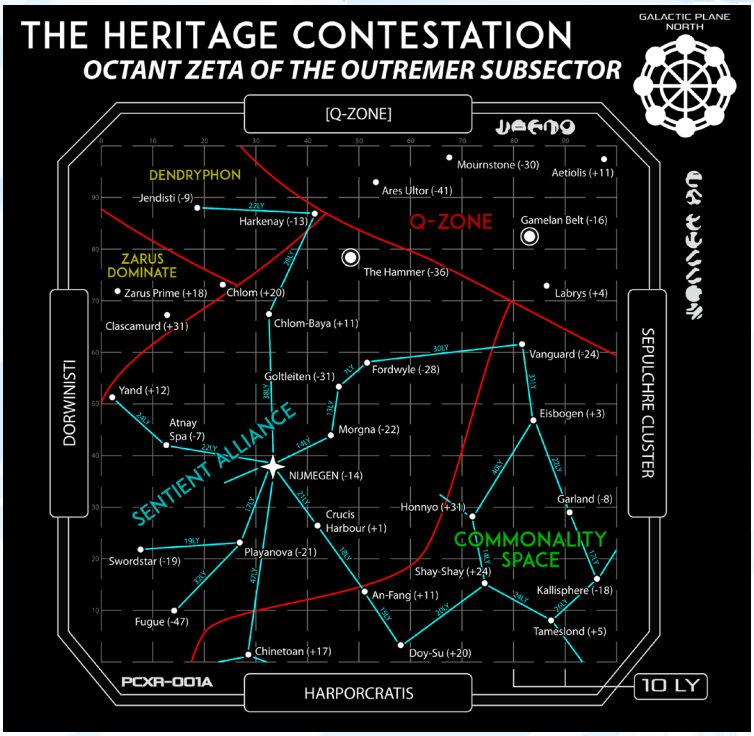


TABLE 17-1: Worlds of the Heritage Contestation Octant

Name	Concept	Name	Concept
Aetiolis (DA838B9-8)	*Tyrannical Lost Colony Holdout Garden World*	Hammer	*Spatial Anomaly Navigational Hazard*
An-Fang (A244989-I)	*Marginal Garden World Commonality Hub*	Harkenay (D874700-0)	*Marginal Garden World of Vegetable Intelligences*
Ares Ultor (D0005B3-7)	*Turbulent Neutral Trade Outpost on an Accretion Disk Planetesimal*	Honnyo (D1A0689-H)	*Corporacy World on a Spectacular Proto-planet*
Atway Spa (A88A946-B)	*Xenomorph Oceanworld Trade Hub*	Jendisti (D465939-8)	*Devastated World of Vegetable Intelligences*
Chinetoan (EA579B9-A)	*Tidally-locked Neo-Shinean Culture World*	Kallisphere (C210A89-F)	*Controlled Tech World in a White Dwarf Orbit*
Chlom (DA42538-C)	*Earthquake-riven Garden World Around a Brown Dwarf*	Labrys (X821600-0)	*Quarantined World of Radiation Flares and Subterranean Mutants*
Chlom Baya (BAA0673-B)	*Balkanised Xenomorph Ice Giant Orbiting a Brown Dwarf*	Morgna (B4666B9-D)	*Agri-World Dictatorship*
Clascamurd (E4477B9-5)	*Oppressive Zarus Dominate Monarchy With Venu Advisers*	Mournstone (DA88600-6)	*Failing World Around a Spectacular Collapsing Star*
Crucis Harbour (B8B0899-G)	*Massively Bureaucratic Corporacy HQ on a Frozen World*	Nijmegen (A867937-H)	*Sentient Alliance Garden World Octant Capital*
Doy-Su (CA60A87-B)	*High-Pop Shinean-Yarpeen Culture World*	Playanova (C86A935-G)	*Beautiful Casino Oceanworld*
Eisbogen (D445788-G)	*Cold Commonality Agri-World in a Binary System*	Shay-shay (D2446B9-G)	*Busy Interstellar Crossroads With an Exointelligent Patron*
Fordwyle (D868748-7)	*Melting Pot Trading Hub Garden World*	Swordstar (D4837B7-8)	*Martial World of Ursoid Knights*
Fugue (E896839-8)	*Industrial Marginal Garden World of Non-human Xenomorphs*	Tameslond (B866989-H)	*Garden World HQ of Tameslond Derivations*
Gamelan Belt (C0104B1-A)	*Pirate Base in a Black Star Accretion Disk*	Vanguard (AA00789-H)	*Space Force Depot on a Brilliant Iceball World*
Garland (B867988-H)	*High Pop World With Variable Star Ecosystem*	Yand (CA96738-B)	*Ancient Orbital Around a High-G Garden Moon*
Goltleifen (DA96739-1)	*Golden Desert Garden World With Reptilian Barbarians*	Zarus Prime (D8649B9-A)	*Harsh Mainworld of the Zarus Dominate*

AETIOLIS II (DA838B9-8)

Aetiolis is a forbidding Q-Zone world ruled by tyrants and little visited by outsiders. An warm, aqueous planet with a breathable atmosphere, it has an orange-hued sky and dark purple, almost black vegetation. Living conditions on the world are very challenging; it's arid, with a 1.8G gravity, and its five moons create nightmarish tides and plentiful vulcanism. Indeed, there are theories that the arrangement isn't natural, and that the planet-plus-five-moons of Aetiolis II form an engineered rosette.

Aetiolis is a slave world; its frightening and oppressive society is a rigid hierarchy enforced by an omnipresent and intrusive proto-Mindscape. The embargo on restricted weapons sales to the world is largely theoretical, however; Commonality vessels very rarely make it out this far, and the embargo isn't currently enforced. Its inhabitants know there are other worlds out there, and official propaganda teaches that society must keep itself pure and disciplined for the day it's recontacted. It's doubtful whether the Aetiolis Tyrants actually want this ever to happen, however.

Basic Concept: Tyrannical Lost Colony Holdout Garden World.

STELLAR BODY TYPE: *COOL M-CLASS SUBDWARF*

Stellar Body Age: *5 (Maturing).*

Planetary Bodies: *8.*

Resources: Plentiful*: helium, hydrogen;* Scarce: *everything else.*

PLANETARY TYPE: *INFERIOR GARDEN WORLD*

Planetary Age: *5 (Maturing).*

Orbit: *5 (Inner H-Zone: 6,600,000km).*

Year Length: *20d.*

Size: *9 (Large Standard: 19,200km).*

Density: *8 (Standard).*

Surface Gravity: *8 (High Standard: 1.8G).*

Day Length: *7 (Standard: 23h).*

Atmospheric Pressure: *9 (High: 2atm).*

Surface Temperature: *12 (Warm: 20°C).*

Surface Liquid: *6 (Low: 35%).*

Seasonality: *4 (Very Low).*

Satellites: *3 x Small, 2 x Standard.*

Biosphere: *Transplant (Standard Biodiversity).*

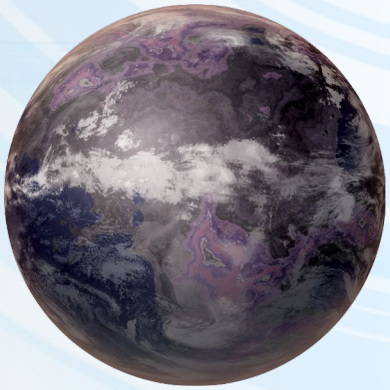
Habitability: *DM+1 (Challenging).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *HOLDOUT WORLD*

Designation: *1 (Lost Colony).*

Population: *9 (High Standard: Hundreds of millions).*



Government Type: *7 (Dictatorship).*

Societal Development: *10 (Widespread Intrusive Collective).*

Economic System: *Confiscation.*

Openness: *11 (Outgoing).*

Control Index: *11 (Total).*

Trade Index: *3 (Inconsequential).*

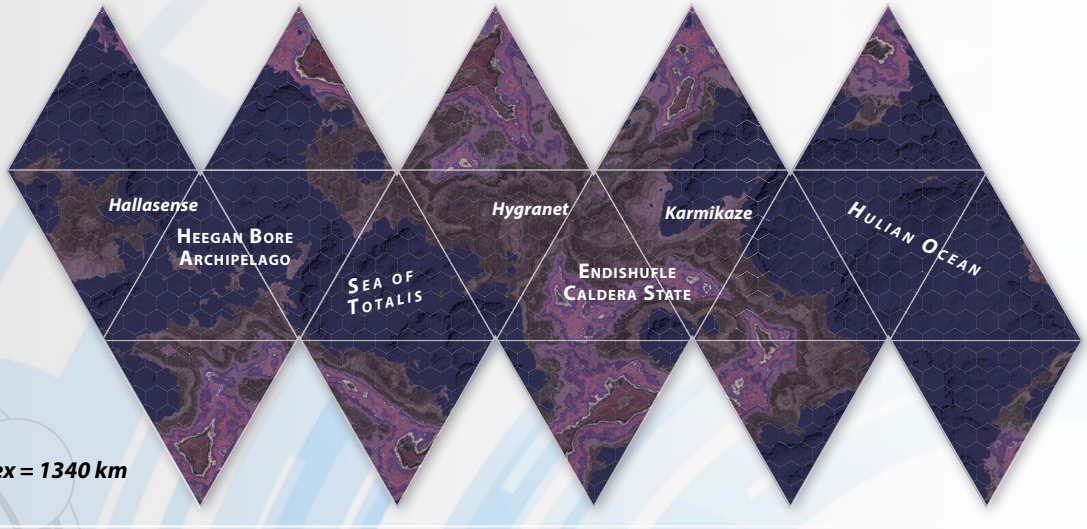
Tech Index: *T6 (Age of Genurgy).*

Embargo: *DM+1 (theoretical).*

Starport: *E-class Basic Facility.*

Mindscape: *5 (Global Proto-Mindscape).*

Culture: *Lost World subculture in Stage Zero Interdiction and Manipulation.*



1 Hex = 1340 km

AN-FANG III (A244989-I)

An-Fang is the gateway to the Sentient Alliance and the Successor States beyond, and a formidable cultural bastion. A T9 civilisation and the main Commonality world in the Heritage Contestation octant, it dates back to the Great Western Flourishing era of the Shine Commonality, which spread many populations from eastern Yarp and the Shinean Hinterlands to the stars. Its slowship left Old Earth in approximately 500FA, early even for the Flourishing; An-Fang was founded before longevity and xenomorphs ever took hold. It's an arid world, with an eccentric orbit and extreme seasonality; its civilisations were unable to achieve equilibrium until the Great Processional Plurality three thousand years ago. Since then, An-Fang's people have been adapted to its conditions, its culture has been stable, and its history and archives have remained unbroken. Even now, however, it's difficult for offworlders to adapt, and many need respirators.

An-Fang is an aqueous world, but originally had only a simple biosphere; today's ecosystems are terrestrial transplants, adjusted to local conditions. It has pleasant summers with a huge sun in a bright blue sky, but a ferociously cold winter, when the sun seems to shrink to half its size, a mini-Ice Age lasting four months, when the temperate zones freeze over, atmospheric moisture precipitates out to be locked into the ice caps, and all but the equatorial regions experience huge climate change.

An-Fang's society is highly controlled, and the population seem to like it. Their lives are on full display, with little privacy; population pressures and cultural history have created a communal culture, facilitated these days by hyperintelligent sentience oversight. The solar system has been extensively developed, and three quarters of the population live offworld.

Basic Concept: Marginal Garden World Commonality Hub.

STELLAR BODY TYPE: *G-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *7 (Mature).*

Planetary Bodies: *6.*

Resources: Plentiful*: calcium, other metals.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *7 (Mature).*

Orbit: *3 (Highly Eccentric). Inner Habitable Zone (105,000,000km) to Outer Habitable Zone (225,000,000km).*

Year Length: *438 standard days.*

Size: *4 (Small: 3840km).*

Density: *8 (Standard).*

Surface Gravity: *5 (Low: 0.5G).*

Day Length: *5 (Slow: 10 standard days).*

Atmospheric Pressure: *6 (Low: 0.7atm).*

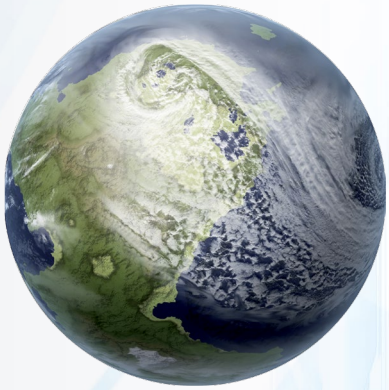
Surface Temperature: *8 (Standard: 14°C) to 4 (Cool: 10°C).*

Surface Liquid: *6 (Low: 45% water).*

Seasonality: *13 (Extreme Seasonality).*

Satellites: *1 planetesimal.*

Biosphere: *Transplant.*



Habitability: *DM+0 (Marginal).*

Resources: Plentiful *: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *COMMONALITY HUB*

Designation: *7 (Culture World).*

Population: *11 (High: Billions).*

Government Type: *11 (Commonality-controlled).*

Societal Development: *17 (Sentience Coordinated Collective).*

Economic System: *Resource Allocation.*

Openness: *7 (Guarded).*

Control Index: *10 (Total).*

Trade Index: *6 (Low Moderate).*

Embargo: *n/a.*

Tech Index: *T9 (Second Age of Space).*

Starport: *A-class Octant Hub.*

Mindscape: *10 (Mindscape Hub).*

Culture: *Yarpeen/Shinean Culture World in Stage 4 Cultural Integrity.*

ARES ULTOR (WARSTAR) (D0005B3-7)

The Ares Ultor system is an accretion disk around a very young F-class pre-main sequence star, deep in the Q-Zone. It contains valuable resources and countless planetesimals; Warstar is one such, the location of an antiquarian Commonality sentience which has either gone rogue or been recruited to the Venu cause, and which gives the planetesimal its name. It's a heavily armed neutral ground devoted to conflict as a means to peace and progress.

Warstar operates on a modified barter system, with visitors converting a certain quantity of physical goods into exchangeable credit guaranteed by the Warstar sentience. It's a pretty low tech facility, although higher tech gear and services can often be had by trade. Warstar is officially embargoed, but the Commonality rarely attempts to enforce it this far out.

Basic Concept: Turbulent Neutral Trade Outpost on an Accretion Disk Planetesimal.

STELLAR BODY TYPE: *F-CLASS PRE-MAIN SEQUENCE STAR*

Stellar Body Age: *3 (Very Young).*

Planetary Bodies: *None.*

Resources: Plentiful*: carbon, hydrogen, silicates; organics, zanthrium ore;* Scarce: *water.*

PLANETARY TYPE: *ACCRETION DISK*

Planetary Age: *2 (Extremely Young).*

Orbit: *8 (Outer Habitable Zone: 3.3AU).*

Year Length: *5.4 standard years.*

Size: *2 (Planetesimal: 128km).*

Density: *7 (Standard).*

Surface Gravity: *3 (Microgravity).*

Day Length: *n/a (22h).*

Atmospheric Pressure: *2 (Trace, carbon dioxide).*

Surface Temperature: *2 (Cold: -70°C).*

Surface Liquid: *2 (None: Pools of frozen water ice, occasional liquid hydrogen peroxide).*

Seasonality: *n/a.*

Satellites: *n/a.*

Biosphere: *No Biosphere.*

Habitability: *DM-12 (Deadly).*

Resources: Plentiful*: carbons, dispersed silicates, organics, zanthrium ore;* Scarce: *water.*

CIVILISATION TYPE: *NEUTRAL OUTPOST*

Designation: *3 (Commonality Outpost).*

Population: *4 (Low: 250,000).*

Government Type: *7 (Dictatorship).*

Societal Development: *12 (Sentience Coordinated Collective).*

Economic System: *Barter.*

Openness: *4 (Self-Centred).*

Control Index: *3 (Property).*

Trade Index: *8 (Moderate).*

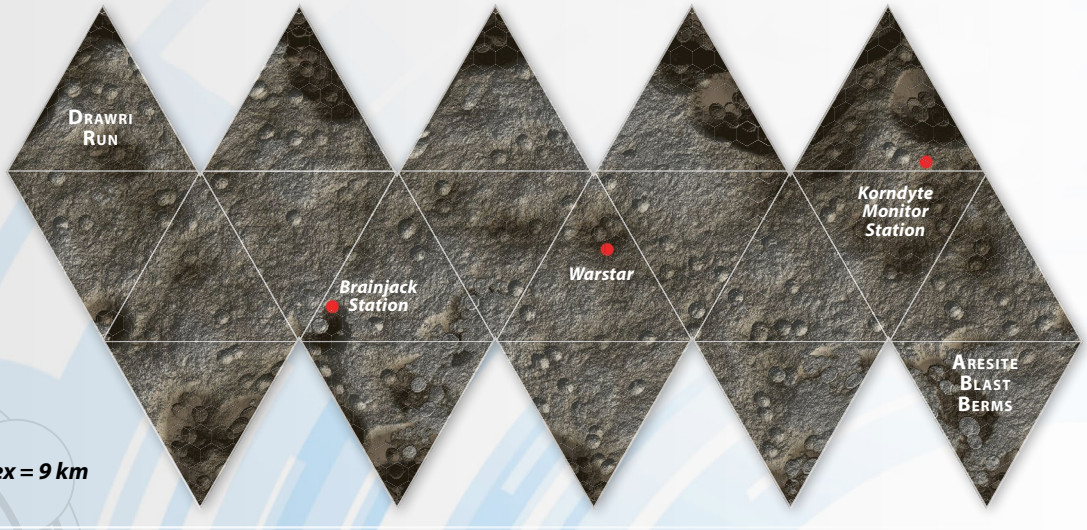
Embargo: *DM+5 (theoretical).*

Tech Index: *T5 (Computer Age).*

Starport: *D-class Starport.*

Mindscape: *5 (Global Mindscape).*

Culture: *Commonality-derived Culture outside Commonality zone of influence.*



1 Hex = 9 km

ATWAY SPA V (A88A946-B)

An idyllic Sentient Alliance waterworld, Atway Spa has a primarily aquatic population of native dolphin xenomorphs and other cetaceans. It has a beautiful pale blue sky, and its coral reef archipelagos are a riot of yellow and violet vegetation. It's a very dynamic world, with significant tides and strong ocean currents.

The world's extensive trade is concentrated at its massive starport complex, which also defines the extent of its otherwise up-to-date Mindscape. The rest of the density populated world is "silent" to Mindscape and other traffic, leaving the oceans free for the long distance natural communications of its inhabitants.

Basic Concept: Xenomorph Oceanworld Trade Hub.

STELLAR BODY TYPE: *K-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *6 (Mature).*

Planetary Bodies: *13.*

Resources: Plentiful*: manganese, silicon, titanium oxide.*

PLANETARY TYPE: *OCEANWORLD*

Planetary Age: *6 (Mature).*

Orbit: *8 (Outer Habitable Zone: 135,000,000km).*

Year Length: *361d.*

Size: *7 (Standard: 12,800km).*

Density: *6 (Low Standard).*

Surface Gravity: *6 (Low Standard: 0.8G).*

Day Length: *7 (Standard: 30h).*

Atmospheric Pressure: *9 (High: 1.75atm).*

Surface Temperature: *7 (Standard: 14°C).*

Surface Liquid: *11 (Oceanworld: 100%).*

Seasonality: *10 (High Standard).*

Satellites: *1 x planetoid, 2 x small.*

Biosphere: *T-Congruent.*

Habitability: *DM+2 (Adequate).*

Resources: Plentiful*: biosphere, hydrogen, oxygen, water.*

CIVILISATION TYPE: *INTERSTELLAR CIVILISATION*

Designation: *6 (Sentient Alliance Aligned).*

Population: *11 (Billions).*

Government Type: *5 (Representative).*

Societal Development: *6 (Taxation and Representation).*

Economic System: *Unregulated Money Economy.*

Openness: *8 (Guarded).*

Control Index: *4 (Speech).*

Trade Index: *10 (Extensive).*

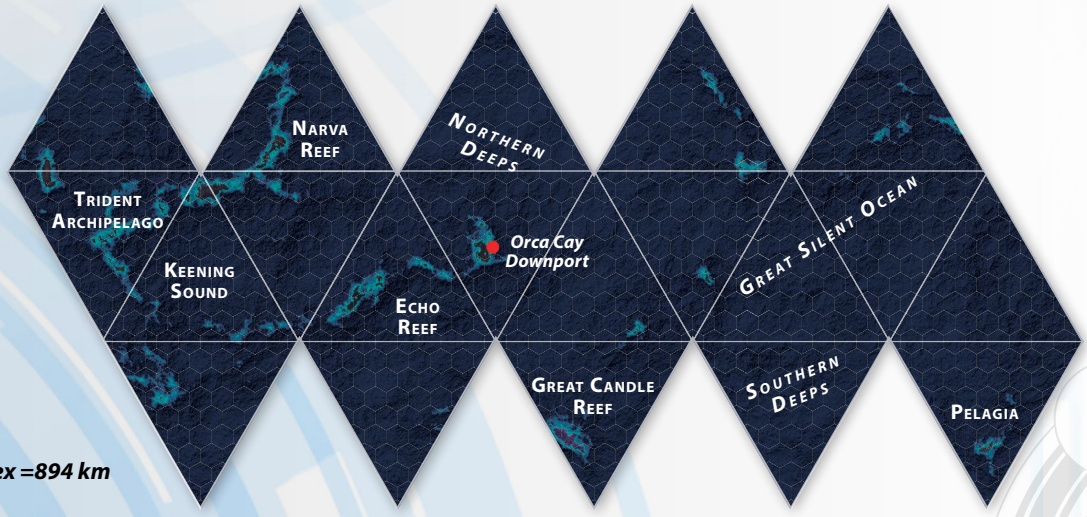
Embargo: *-2 (None).*

Tech Index: *T7 (First Age of Space).*

Starport: *A2-class Hub.*

Mindscape: *3 (Local Node).*

Culture: *Sentient Alliance Xenomorph Culture in Stage Two Normalisation.*



1 Hex =894 km

CHINETOAN III (EA579B9-A)

Chinetoan was a failed colony world, recently recolonised by the Commonality. It's an aqueous planet, with a pale, almost white sky and deep red vegetation. Today it's a high-population neo-Shinean culture world, an oppressive society with little real offworld contact. SCI Force remains very active here via the world's proto-Mindscape.

There are mysterious ruins on Chinetoan which may date back to the original colony, although some maintain they are of non-human origin. The truth is that no one really knows what happened to cause the failure of the first colony, and the Chinetoan government is reluctant to issue permits for research and archaeological digs, preferring itself a jingoistic and self-aggrandising false history.

Basic Concept: Tidally Locked Marginal Neo-Shinean Culture World.

STELLAR BODY TYPE: *M-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *Ageing (+1).*

Planetary Bodies: *8.*

Resources: Plentiful*: oxides.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *9 (Ageing).*

Orbit: *6 (Inner Habitable Zone: 22,050,000km).*

Year Length: *107d.*

Size: *9 (Large Standard: 19,200km).*

Density: *8 (Standard).*

Surface Gravity: *8 (High Standard: 1.5G).*

Day Length: *107d (Tidally-locked).*

Atmospheric Pressure: *6 (Low: 0.6atm).*

Surface Temperature: *7 (Standard: 14°C).*

Surface Liquid: *8 (High: 70%).*

Seasonality: *2 (No Seasonality).*

Satellites: *1 x Ring, 1 x Planetesimal, 1 x Planetoid*

Biosphere: *T-Analogue.*

Habitability: *DM+1 (Challenging).*

Resources: Plentiful *: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *CULTURE WORLD*

Designation: *7 (Culture World).*

Population: *11 (Billions).*

Government Type: *7 (Dictatorship).*

Societal Development: *6 (Taxation and Representation).*

Economic System: *Unregulated Money Economy.*

Openness: *8 (Guarded).*

Control Index: *9 (Repressive).*

Trade Index: *6 (Low Moderate).*

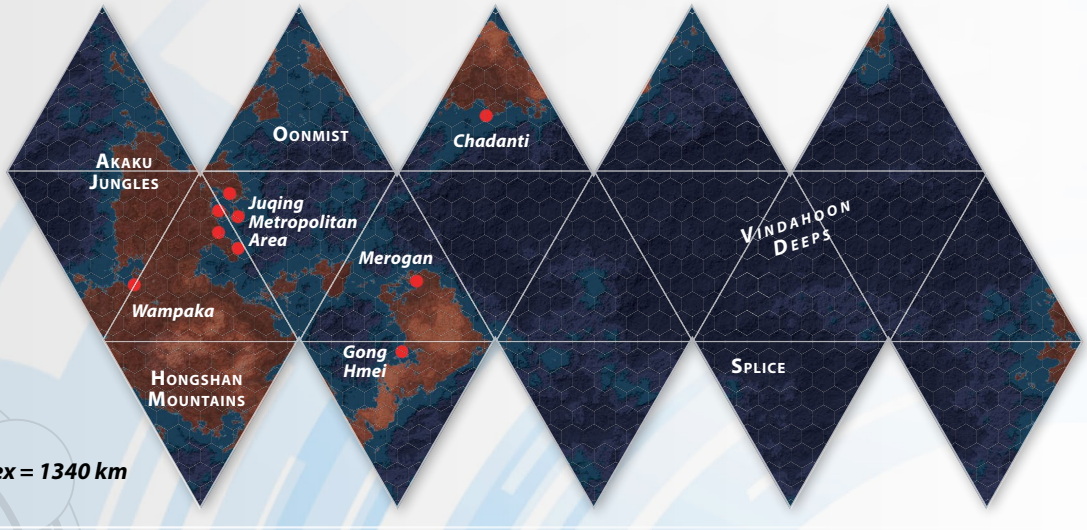
Embargo: *DM+3 (No weapons, armour, or planing engines).*

Tech Index: *T7 (First Age of Space).*

Starport: *U-class Landing Strip.*

Mindscape: *9 (Systemwide Proto-Mindscape).*

Culture: *Neo-Shinean Culture World in Stage 3 Acculturation.*



1 Hex = 1340 km

CHLOM B-IV (DA42538-C)

Chlom is a binary system. Chlom A is a K-class supergiant, hundreds of solar diameters across; Chlom B is a brown dwarf companion in an extreme outer orbit. Chlom B-IV is a lost colony world of black vegetation and blood-red skies, and has belonged to the oppressive Zarus Dominate since the Venu War. It's an aqueous planet with an atmosphere tainted by sulphurous compounds; tidally-locked to Chlom B, it's subject to tidal forces responsible for a high incidence of vulcanism and earthquakes. It's theorised that the world migrated into its current orbit as a result of a collision which created the Western Depths, and that the tidal stresses affecting it will eventually tear the world apart. Until then, life remains difficult here, requiring filter masks and numerous other arduous adaptations, and the population is relatively low. Although it's tidally-locked, Chlom gets its day-night cycle from Chlom B's own rotation around Chlom A.

Chlom claims kinship and shared history with Chlom Baya, apparently a satellite colony. Chlom today, however, has no s-people xenomorphs; instead, the Zarusian humans engage in traditional pursuits and occupations, extensively relying upon robotic labour, using sentiences which are treated as property. Its hereditary rulers declare their intention to "reunite" with Chlom Baya and free the world from its "xenomorph domination". There are numerous disturbing theories about the fate of the hypothesised Chlom xenomorph population.

Chlom exports most of its produce. Only the ruling classes have access to its Mindscape.

Basic Concept: Earthquake-riven Garden World Around an L-Class Brown Dwarf

STELLAR BODY TYPE: *BINARY K-CLASS SUPERGIANT AND L-CLASS BROWN DWARF*

Stellar Body Age: *12 (Ancient).*

Planetary Bodies: *19.*

Resources: Plentiful*: metal hydrides and alkali metals.*

PLANETARY TYPE: *INFERIOR GARDEN WORLD*

Planetary Age: *11 (Very Old).*

Orbit: *7 (Habitable Zone of Chlom B); 11 (Extreme Outer Orbit of Chlom A: 34AU)*

Year Length: *43.4 standard years (around Chlom I).*

Size: *9 (Large Standard: 19,200km).*

Density: *7 (Standard).*

Surface Gravity: *8 (High Standard: 1.9G).*

Day Length: *Tidally-locked to Chlom B; 8 (Increased: 22h) Chlom B rotation.*

Atmospheric Pressure: *6 (Low: 0.7atm).*

Surface Temperature: *5 (Cool: 10°C).*

Surface Liquid: *6 (Low: 25%).*

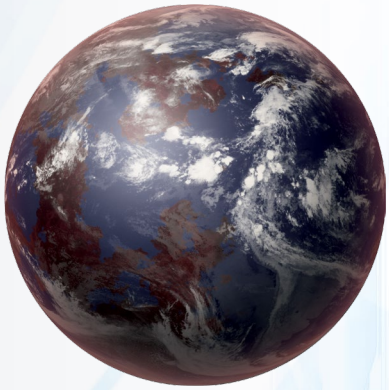
Seasonality: *13 (Extreme Seasonality).*

Satellites: *None.*

Biosphere: *T-Congruent.*

Habitability: *DM+0 (Marginal).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*



CIVILISATION TYPE: *HOLDOUT WORLD*

Designation: *2 (Independent: No Embassy).*

Population: *4 (Low: Hundreds of Thousands).*

Government Type: *3 (Feudal).*

Societal Development: *10 (Widespread Intrusive Collective).*

Economic System: *Confiscation.*

Openness: *4 (Self-centred).*

Control Index: *6 (Influenced).*

Trade Index: *7 (Moderate).*

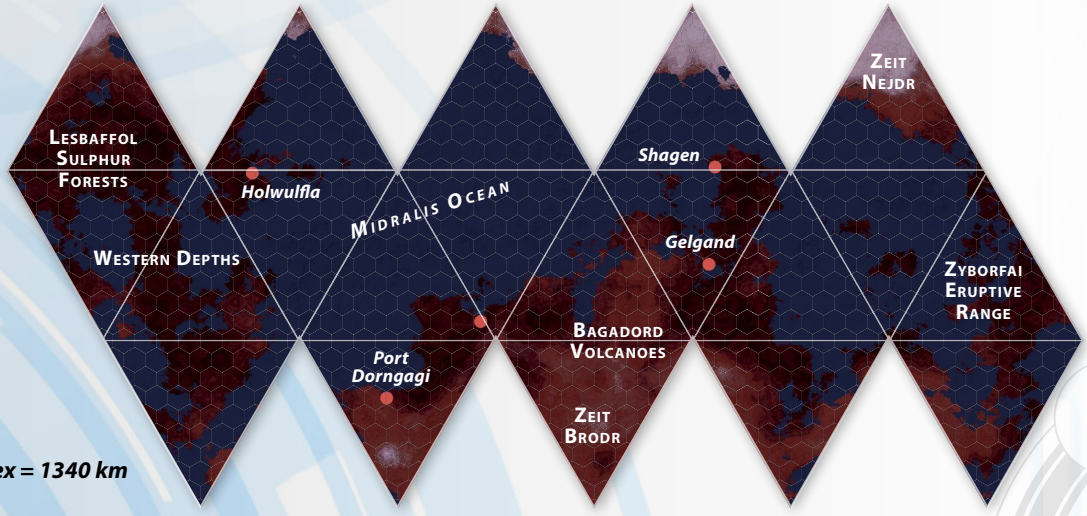
Embargo: *DM+2 (Restricted technologies forbidden).*

Tech Index: *T8 (Age of Ubiquitous Intelligence).*

Starport: *E-class Basic Facility.*

Mindscape: *3 (Limited Mindscape).*

Culture: *Zarus Dominate Culture beyond Commonality influence.*



CHLOM BAYA VII (BAA0673-B)

The Ice Stations of Chlom Baya are famous throughout the Outremer subsector; independent domed city polities with a variety of governmental systems and degrees of societal development (roll for each). The world sees a moderate amount of trade due to its strategic location; its B-class starport is managed by the Sentient Alliance with Commonality support, and has a local Mindscape.

Chlom Baya is apparently a former satellite colony of Chlom, now in the Zarus Dominate. Unlike Chlom, however, it has a predominantly xenomorph population of high GD s-people, derived from terrestrial snakes but with human-like bodies and faces. Its harsh, indeed deadly, conditions have meant that Chlom Baya has always maintained a high minimum Tech Index.

Unusually, Chlom Baya's primary is an L-class brown dwarf, with a remnant planetary system; it's theorised the primary was ejected from another star system, causing catastrophic damage to its planetary bodies. Chlom Baya VII is an ice giant, with a reddish sky, thick gaseous atmosphere, and a core of ice water in supercritical fluid form.

Basic Concept: Balkanised Xenomorph Ice Giant Orbiting a Brown Dwarf

STELLAR BODY TYPE: *L-CLASS BROWN DWARF*

Stellar Body Age: *11 (Very Old).*

Planetary Bodies: *8 in a Remnant Planetary System.*

Resources: Plentiful*: metal hydrides and alkali metals.*

PLANETARY TYPE: *ICE GIANT*

Planetary Age: *11 (Very Old).*

Orbit: *9 (Outer Zone: 37,500,000km).*

Year Length: *166d.*

Size: *11 (Very Large: 64,000km).*

Density: *1 (Very Low).*

Surface Gravity: *7 (Standard: 0.9G).*

Day Length: *6 (Reduced: 7d).*

Atmospheric Pressure: *5 (Low: 0.45atm).*

Surface Temperature: *1 (Frigid: -140°C).*

Surface Liquid: *None.*

Seasonality: *4 (Very Low).*

Satellites: *Ring, 2x Planetesimal, 2x Small.*

Biosphere: *Simple biosphere (exotic).*

Habitability: *DM-4 (Deadly).*

Resources: Plentiful*: ammonia, helium, hydrogen, methane, water ice.*

CIVILISATION TYPE: *BALKANISED WORLD*

Designation: *6 (Sentient Alliance Aligned).*

Population: *5 (Low Standard: Millions).*

Government Type: *Various.*

Societal Development: *Various.*

Economic System: *Mostly Regulated and Unregulated Money Economies.*

Openness: *8 (Guarded).*

Control Index: *Various, generally low.*

Trade Index: *8 (Moderate).*

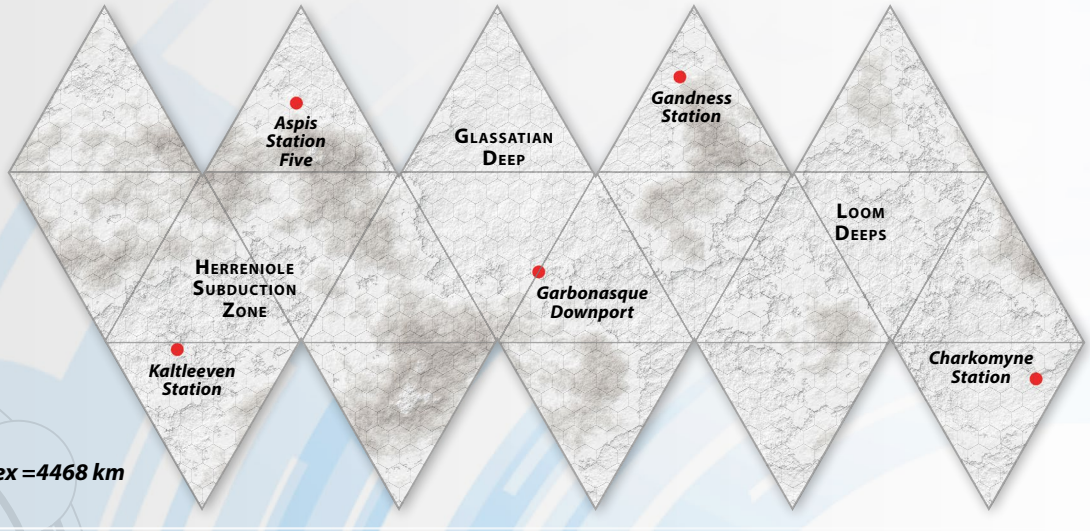
Embargo: *None.*

Tech Index: *T7 (First Age of Space).*

Starport: *B-class Starport.*

Mindscape: *3 (Local Node, starport).*

Culture: *Xenomorph Subculture in Stage 2 Normalisation.*



CLASCAMURD IV (E4477B9-5)

A Zarus Dominate world, Clascamurd orbits a huge gas giant in a distant but nevertheless habitable zone orbit. It hosts bizarrely over-evolved life forms—at least the second time life has evolved on the world—with dark brown vegetation and a yellowish sky. An aqueous planet with high CO_2 levels, its inhabitants use filters. It's a world of oppressed humans and a persecuted xenomorph minority; of torchlit processions, mass rallies, and hysteria, overseen by sinister Venu advisers.

The rest of the Clascamurd solar system shows signs of the devastation which occurred when the system primary expanded. The inner system contains a Chthonian planet, a former gas giant which has had its hydrogen and helium atmosphere blasted away. With crushing gravity, it's a searing airless hellhole.

Basic Concept: Oppressive Zarus Dominate Monarchy With Venu Advisers.

STELLAR BODY TYPE: *M-CLASS RED GIANT*

Stellar Body Age: *10 (Old).*

Planetary Bodies: *8.*

Resources: Plentiful*: oxides.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *10 (Old).*

Orbit: *7 (Habitable Zone: 20AU).*

Year Length: *24 standard years.*

Size: *5 (Small Standard: 6400km).*

Density: *7 (Standard).*

Surface Gravity: *6 (Low Standard: 0.8G).*

Day Length: *4 (Very Slow: 50d).*

Atmospheric Pressure: *5 (Low: 0.7atm).*

Surface Temperature: *4 (Cool: 10°C).*

Surface Liquid: *8 (High: 66% water).*

Seasonality: *11 (High).*

Satellites: *3x planetoid.*

Biosphere: *T-Analogue.*

Habitability: *DM-1(Inimical).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *UNITED WORLD.*

Designation: *2 (Independent: No Embassy).*

Population: *7 (Standard: Tens of Millions).*

Government Type: *4 (Monarchy).*

Societal Development: *4 (Labour Service).*

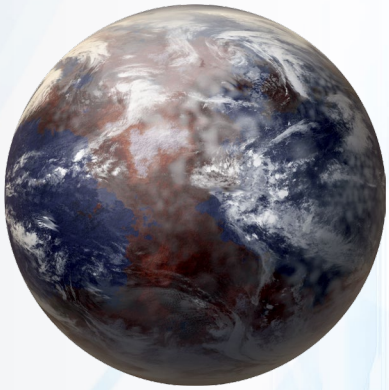
Economic System: *Confiscation.*

Openness: *4 (Self-centred).*

Control Index: *7 (Surveilled).*

Trade Index: *1 (No Trade).*

Embargo: *DM+4 (No higher TI items other than medicines / emergency relief).*

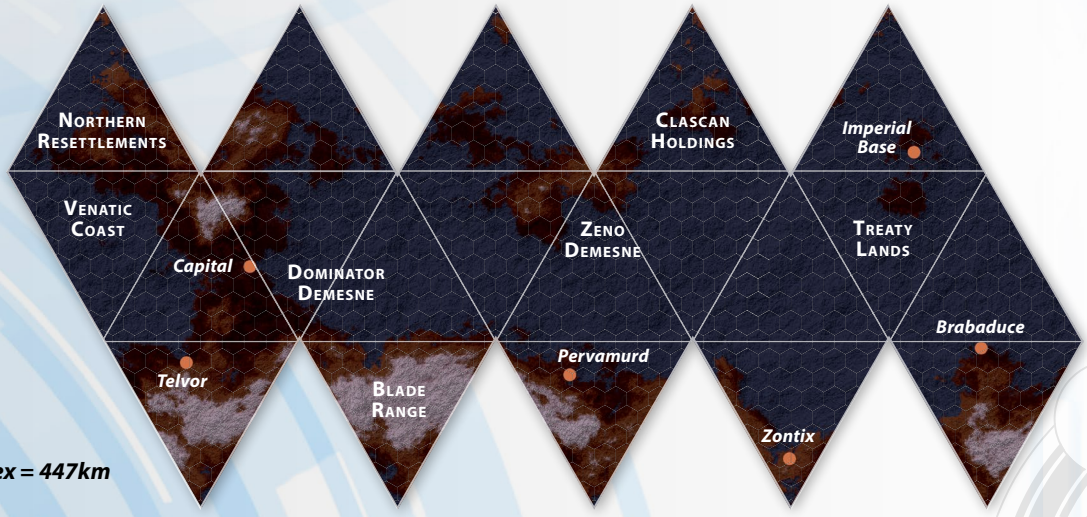


Tech Index: *T4 (Industrial Age).*

Starport: *U-class Landing Strip.*

Mindscape: *None.*

Culture: *Zarus Dominate subculture beyond Commonality influence.*



CRUCIS HARBOUR XII (B8B0899-G)

A Sentient Alliance world, the historical record states that Crucis Harbour was settled as an emergency refuge from "storms", although it's unknown what these storms were. Theories include nearby novas, flares, and even 2-space or pulse dragon events. It's a frigid rocky world, its atmosphere frozen out to solids of nitrogen ice, carbon monoxide, and ammonia hydrates. Extreme life support measures are required to venture outside.

The world is owned and managed by the Crucis Systems corporacy, which produces life support modules, habitats, and extreme conditions vehicles, craft, and equipment, as well as providing rescue services throughout the Sentient Alliance. The whole population works for Crucis Systems; visiting here means submitting to all kinds of rules and regulations. Nevertheless, it's the vital connecting point for traffic between Nijmegen and An-Fang, and huge amounts of traffic pass through the system—although most choose to restrict their sojourn to the starport.

Basic Concept: Massively Bureaucratic Corporacy HQ on a Frozen World.

STELLAR BODY TYPE: *K-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *Mature (+0).*

Planetary Bodies: *13.*

Resources: Plentiful*: manganese, silicon, titanium oxide.*

PLANETARY TYPE: *TERRESTRIAL PLANET*

Planetary Age: *5 (Maturing).*

Orbit: *11 (Extreme Outer: 16.8AU).*

Year Length: *108.5 standard years.*

Size: *7 (Standard: 12,800km).*

Density: *10 (High Standard).*

Surface Gravity: *8 (High Standard: 2G).*

Day Length: *13 (Extremely Rapid: 12h).*

Atmospheric Pressure: *11 (Hazardous: 30atm).*

Surface Temperature: *-2 (Frozen: -240°C).*

Surface Liquid: *None.*

Seasonality: *5 (Low).*

Satellites: *1x ring, 1x planetoid.*

Biosphere: *None.*

Habitability: *DM-16 (Deadly).*

Resources: Plentiful*: metals, silicates.*

CIVILISATION TYPE: *CORPORACY WORLD*

Designation: *8 (Sentient Alliance Autonomous).*

Population: *9 (High Standard: Hundreds of Millions).*

Government Type: *10 (Corporacy-controlled).*

Societal Development: *9 (Selfless Redistribution Model).*

Economic System: *Interested Resource Allocation.*

Openness: *4 (Self-centred).*

Control Index: *10 (Total).*

Trade Index: *9 (High Moderate).*

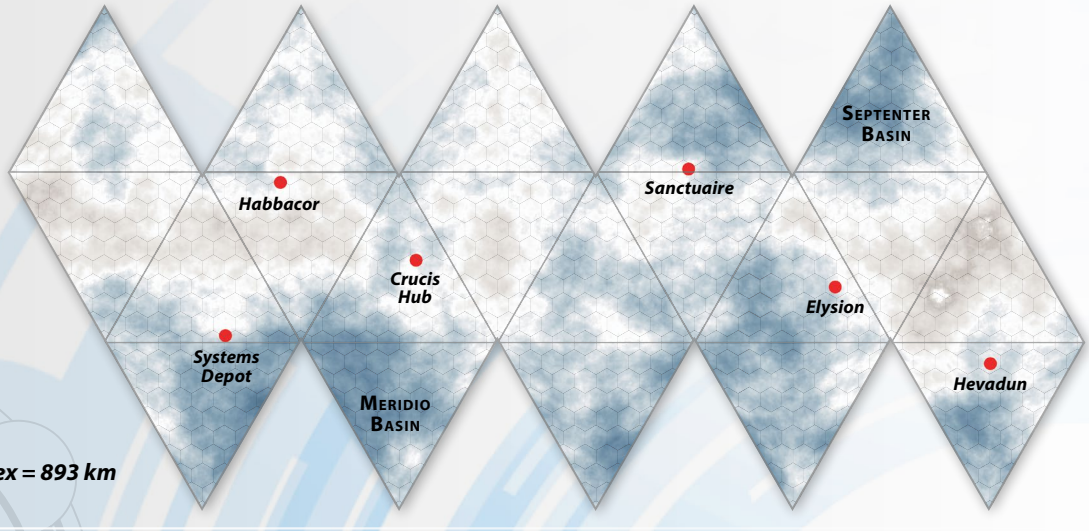
Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *B-class Starport.*

Mindscape: *7 (Systemwide Mindscape).*

Culture: *Sentient Alliance Corporate Culture in Stage Four Cultural Integrity.*



DOY-SU III (CA60A87-B)

Doy-Su is another colony world of the Great Western Flourishing, and a sister world to An-Fang. They were in sporadic contact for millennia before the New Commonality Era. Today its Shinean-Yarpeen colonists have become a hominid sub-species, short, squat, and incredibly strong. They live in low-lying high population conurbations, and recycle ***everything****. Water in particular is at a premium.*

Doy-Su is tidally-locked, and extremely arid. It has a low diversity ecosystem, and a generally harsh environment, although in places it's very easy to live here.

Basic Concept: High Population Shinean-Yarpeen Culture World.

STELLAR BODY TYPE: *M-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *5 (Maturing).*

Planetary Bodies: *16.*

Resources: Plentiful*: oxides.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *5 (Maturing).*

Orbit: *7 (Habitable Zone: 34,500,000km).*

Year Length: *133d.*

Size: *10 (Large: 38400km).*

Density: *8 (Standard).*

Surface Gravity: *11 (High: 4G).*

Day Length: *Tidally-locked (133d).*

Atmospheric Pressure: *7 (Standard: 1.3atm).*

Surface Temperature: *7 (Standard: 14°C).*

Surface Liquid: *4 (Trace: 4%).*

Seasonality: *7 (Standard).*

Satellites: *1x ring, 4x planetesimal, 2x planetoid.*

Biosphere: *Transplant.*

Habitability: *DM+4 (Benign).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *CULTURE WORLD*

Designation: *7 (Culture World)*

Population: *12 (Very High: Tens of Billions).*

Government Type: *11 (Commonality-controlled).*

Societal Development: *12 (Sentience-coordinated Collective).*

Economic System: *Disinterested Resource Allocation.*

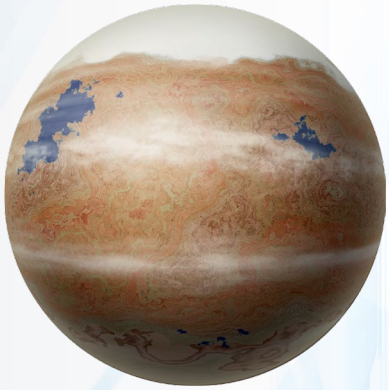
Openness: *2 (Conservative).*

Control Index: *5 (Laissez-Faire).*

Trade Index: *10 (Extensive).*

Embargo: *None.*

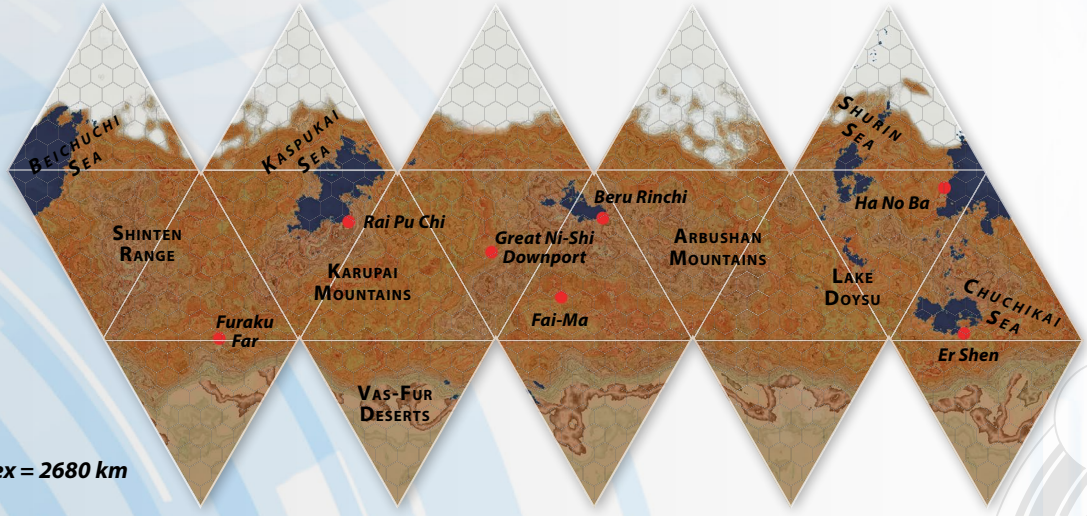
Tech Index: *T7 (First Age of Space).*



Starport: *C-class Starport.*

Mindscape: *3 (Limited Proto-Mindscape).*

Culture: *Shinean-Yarpeen Culture World in Stage Four Cultural Integrity.*



1 Hex = 2680 km

EISBOGEN B-IV (D445788-G)

The Commonality world of Eisbogen is a cold garden world of great beauty. With two suns, it orbits the G-class main sequence star Eisbogen B. Its life forms produce a natural antifreeze, although the cold thin atmosphere means that inhabitants and visitors need respirators. It has a blue sky, and predominantly yellow vegetation. It occupies a strategic location on the way to Vanguard (page 366).

Basic Concept: Cold Commonality Agri-World in a Binary System

STELLAR BODY TYPE: *BINARY M-CLASS GIANT AND G-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *9 (Ageing).*

Planetary Bodies: *10.*

Resources: Plentiful*: calcium, other metals.*

PLANETARY TYPE: *INFERIOR GARDEN WORLD*

Planetary Age: *8 (Mature).*

Orbit: *8 (Outer Habitable Zone: 270,000,000km).*

Year Length: *2.34 standard years.*

Size: *6 (Small Standard: 6400km).*

Density: *7 (Standard).*

Surface Gravity: *6 (Low Standard: 0.7G).*

Day Length: *7 (Standard: 28h).*

Atmospheric Pressure: *5 (Low: 0.6atm).*

Surface Temperature: *5 (Cool: 10°C).*

Surface Liquid: *6 (Low: 49%).*

Seasonality: *8 (Standard).*

Satellites: *2x planetesimal, 1x planetoid.*

Biosphere: *T-Analogue.*

Habitability: *DM+0 (Marginal).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *AGRI-WORLD*

Designation: *9 (Commonality Member).*

Population: *7 (Standard: Tens of Millions).*

Government Type: *12 (Commonality-controlled).*

Societal Development: *12 (Sentience-coordinated Collective).*

Economic System: *Disinterested Resource Allocation.*

Openness: *7 (Guarded).*

Control Index: *6 (Influenced).*

Trade Index: *7 (Moderate).*

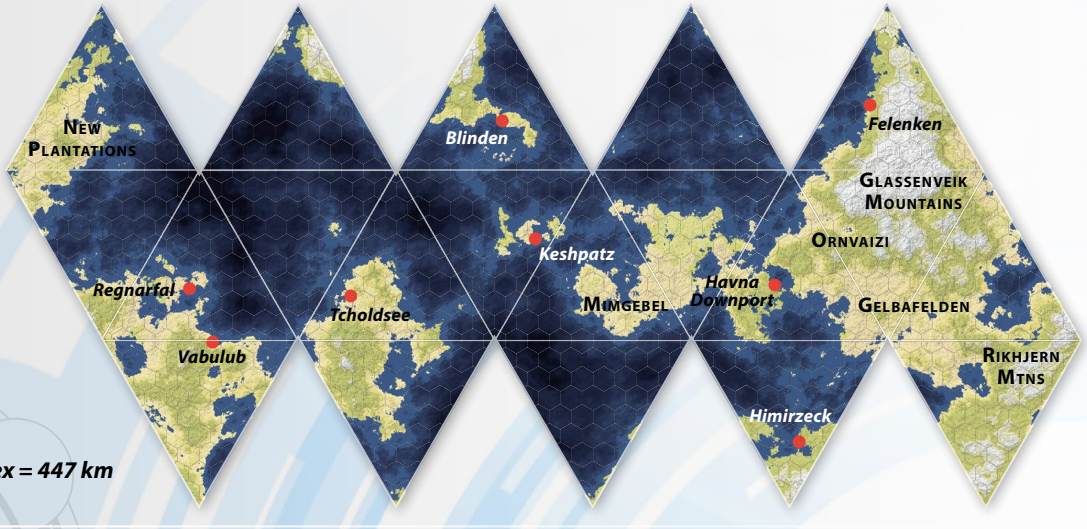
Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *D-class Starport.*

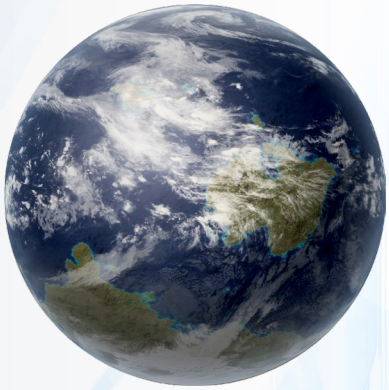
Mindscape: *6 (Systemwide Mindscape).*

Culture: *Commonality Culture in Stage Four Cultural Integrity.*



1 Hex = 447 km

FORDWYLE III (D868748-7)



Fordwyle is a Sentient Alliance world, and a stepping stone on the Commonality Mindjammer routes. It's a melting pot and trading hub, and lots of corporacies have offices here, particularly in the starport; Fordwyle's government enjoys playing them off against one another.

Basic Concept: Melting Pot Trading Hub Garden World.

STELLAR BODY TYPE: *K-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *5 (Maturing).*

Planetary Bodies: *13.*

Resources: Plentiful*: manganese, silicon, titanium oxide.*

PLANETARY TYPE: *STANDARD GARDEN WORLD*

Planetary Age: *5 (Maturing).*

Orbit: *6 (Inner Habitable Zone: 44,100,000km).*

Year Length: *94d.*

Size: *8 (Standard: 12,800km).*

Density: *7 (Standard).*

Surface Gravity: *7 (Standard: 1.1G).*

Day Length: *8 (Increased: 22h).*

Atmospheric Pressure: *7 (Standard: 0.9atm).*

Surface Temperature: *11 (Warm: 20°C).*

Surface Liquid: *9 (Very High: 80%).*

Seasonality: *5 (Low).*

Satellites: *1x planetesimal,1x planetoid, 1x small.*

Biosphere: *T-Congruent.*

Habitability: *DM+3 (Agreeable).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *UNITED WORLD*

Designation: *6 (Sentient Alliance Aligned).*

Population: *8 (Standard: Tens of Millions).*

Government Type: *5 (Representative).*

Societal Development: *7 (Early Redistributive Model).*

Economic System: *Regulated Money Economy.*

Openness: *6 (Equivocal).*

Control Index: *6 (Influenced).*

Trade Index: *11 (Very Extensive).*

Embargo: *None.*

Tech Index: *T5 (Computer Age).*

Starport: *D-class Starport.*

Mindscape: *5 (Global Mindscape).*

Culture: *Sentient Alliance Culture in Stage Two Normalisation.*

1 Hex = 894 km

FUGUE V (E896839-8)

Although a Sentient Alliance world, Fugue is isolated and isolationist. Its population comprises low GD xenomorphs trying to redefine what a "non-human" xenomorph culture might be. This young aqueous world has a pale blue sky and bluish vegetation; the high levels of CO_2 in the atmosphere means that unaugmented individuals must wear filter masks. While the world is industrialised, Fugue's insular nature means there's effectively no offworld trade.

Basic Concept: Industrial Marginal Garden World of Non-Humanoid Xenomorphs.

STELLAR BODY TYPE: *F-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *4 (Young).*

Planetary Bodies: *8.*

Resources: Plentiful*: calcium, chromium, hydrogen, iron.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *4 (Young).*

Orbit: *8 (Outer Habitable Zone: 720,000,000km).*

Year Length: *7.34 standard years.*

Size: *8 (Standard: 12,800km).*

Density: *9 (High Standard).*

Surface Gravity: *8 (High Standard: 2G).*

Day Length: *11 (Extremely Rapid: 16h).*

Atmospheric Pressure: *9 (High: 2atm, high CO_2).*

Surface Temperature: *12 (Warm: 20°C).*

Surface Liquid: *7 (Average: 60%).*

Seasonality: *10 (High Standard).*

Satellites: *1x ring, 1x planetesimal.*

Biosphere: *T-Analogue.*

Habitability: *DM+0 (Marginal, high CO_2).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *INDUSTRIAL WORLD*

Designation: *8 (Sentient Alliance Autonomous).*

Population: *9 (High Standard : Hundreds of Millions).*

Government Type: *11 (Sentient Alliance-controlled oligarchy).*

Societal Development: *11 (Widespread Unintrusive Collective).*

Economic System: *Interested Resource Allocation.*

Openness: *2 (Conservative).*

Control Index: *8 (Restricted).*

Trade Index: *2 (No Trade).*

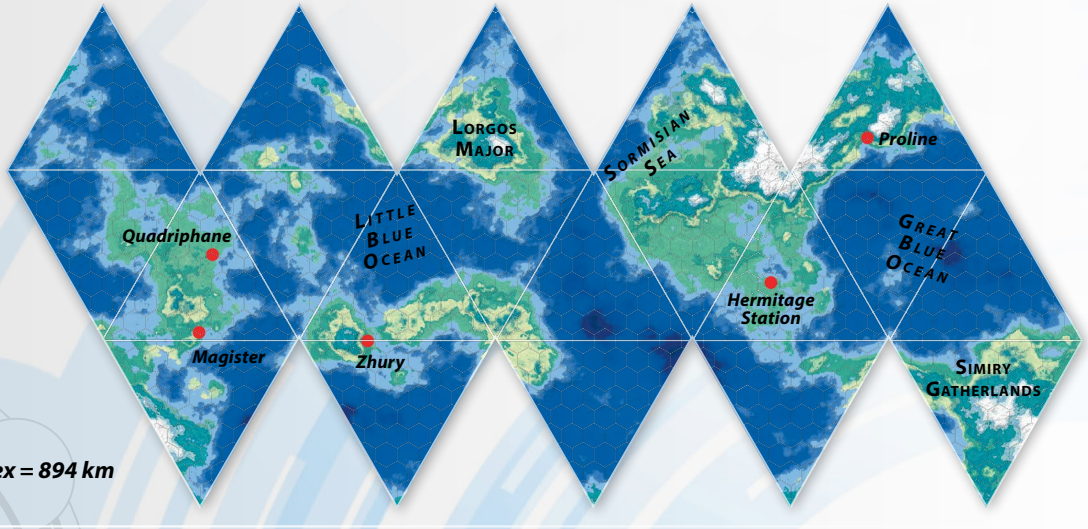
Embargo: *DM+2 (No restricted technologies).*

Tech Index: *T6 (Age of Genurgy).*

Starport: *U-class Landing Strip.*

Mindscape: *2 (None).*

Culture: *Sentient Alliance Subculture in Stage Zero: Interdiction and Manipulation.*



1 Hex = 894 km

GAMELAN BELT (C0104B1-A)

The Gamelan Belt is an accretion disk orbiting the Gamelan black star navigational hazard, deep in the Q-Zone. The black star's intense gravitational pull, similar to that of a black hole, means that vessels entering this system have to be ***extremely*** *careful. Nevertheless, visitors do come here: the Belt is a notorious lawless hive, beyond the control of neighbouring polities, who consider the risk to outweigh any possible benefits of trying to police this chaotic part of the Q-Zone.*

The Belt settlement basically ***is*** *the starport. Although it's unable to construct planeships from scratch, it can (just about) repair them. It also sports a primitive proto-Mindscape called the Mesh.*

The Gamelan Belt is officially embargoed, although the Commonality makes no efforts to enforce this.

Basic Concept: Pirate Base in a Black Star Accretion Disk

STELLAR BODY TYPE: *BLACK STAR*

Stellar Body Age: *Ancient.*

PLANETARY TYPE: *ACCRETION DISK*

Planetary Age: *2 (Extremely Young).*

Orbit: *12 (Extreme Outer: 40AU).*

Year Length: *253 standard years.*

Size: *2 (Planetesimal: 128km).*

Density: *8 (Standard).*

Surface Gravity: *3 (Microgravity).*

Day Length: *n/a.*

Atmospheric Pressure: *2 (Trace: 0.05atm).*

Surface Temperature: *0 (Frigid: -140°C).*

Surface Liquid: *2 (None).*

Seasonality: *n/a*

Satellites: *n/a.*

Biosphere: *None.*

Habitability: *DM-14 (Deadly).*

Resources: Plentiful*: carbons, dispersed silicates, organics, zanthrium ore;* Scarce: *water.*

CIVILISATION TYPE: *UNITED WORLD*

Designation: *2 (Independent: No Embassy).*

Population: *3 (Very Low: Tens of Thousands).*

Government Type: *6 (Mercantilist Oligarchy).*

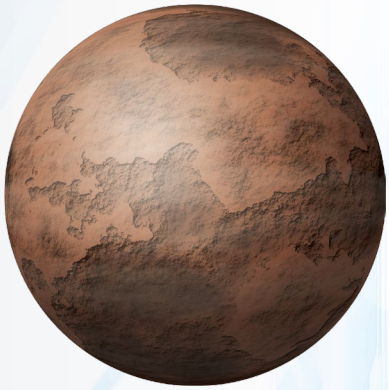
Societal Development: *6 (Taxation and Representation).*

Economic System: *Unregulated Money Economy.*

Openness: *9 (Self-critical).*

Control Index: *1 (Mass Destruction).*

Trade Index: *12 (Ubiquitous).*



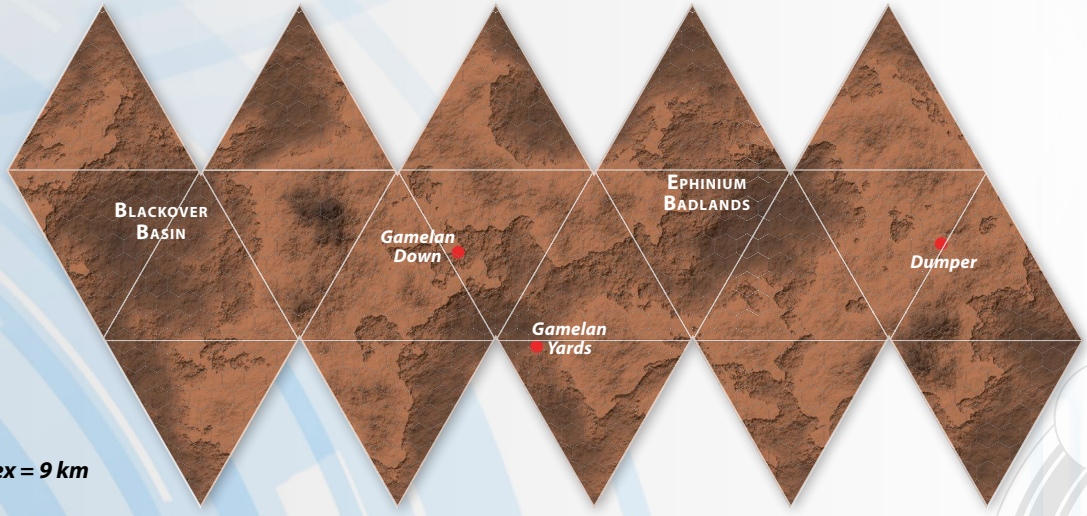
Embargo: *DM+5 (No higher TI technologies).*

Tech Index: *T7 (First Age of Space).*

Starport: *C-class starport.*

Mindscape: *5 (Restricted Access Global Proto-Mindscape).*

Culture: *Q-Zone Subculture beyond Commonality influence.*



GARLAND II (B867988-H)

*A Commonality garden world with high O_2 levels and slightly older than Old Earth, Garland is known for its huge carnivorous semi-motile sunflower-like **narsids** and their euphoria-inducing blooms. It's a world of vast arcologies and orbitals. Rediscovered roughly a century ago, it was a key port during the Venu War.*

Garland orbits Beacon, a variable yellow giant star with a period of only 10 standard days (2 local days). Its variability is relatively mild; from the point of view of a person standing on Garland, the huge sun brightens to a white heat every 2 local days, and the long local nights are filled with aurorae. It's at this time that the narsids blossom fully, increasing the planet's albedo.

It's an unusual world. It has a long year (24 standard years), but its seasonality is mostly determined by the primary's 10-standard day variability period, when temperatures jump by 10 degrees, precipitating huge changes. The various species of narsid, motile during the 10-standard day cool period, become sessile during the hot period, filling the air with euphoric pollen.

The importance of the narsids to the planet's agreeable climate was understood early in the colonial period, and most colonial activity has clustered along the continental shelves, emerging from the water in huge arcologies.

Basic Concept: High Pop World With Variable Star Ecosystem.

STELLAR BODY TYPE: *G-CLASS YELLOW GIANT*

Stellar Body Age: *9 (Ageing).*

Planetary Bodies: *10.*

Resources: Plentiful*: calcium, other metals.*

PLANETARY TYPE: *STANDARD GARDEN WORLD*

Planetary Age: *9 (Ageing).*

Orbit: *7 (Habitable Zone: 26AU).*

Year Length: *24 standard years.*

Size: *8 (Standard: 12,800km).*

Density: *7 (Standard).*

Surface Gravity: *7 (Standard: 0.9G).*

Day Length: *6 (Reduced: 5d).*

Atmospheric Pressure: *7 (Standard: 0.9atm).*

Surface Temperature: *6 (Cool: 10°C) to 10 (Warm: 20°C).*

Surface Liquid: *8 (High: 75%).*

Seasonality: *11 (High).*

Satellites: *1x ring, 2x small.*

Biosphere: *T-Congruent.*

Habitability: *DM+3 (Agreeable).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *HIGH-POPULATION WORLD*

Designation: *9 (Commonality Member).*

Population: *11 (High: Billions).*

Government Type: *11 (Commonality-controlled).*

Societal Development: *12 (Sentience-controlled Collective).*

Economic System: *Disinterested Resource Allocation.*

Openness: *7 (Guarded).*

Control Index: *6 (Influenced).*

Trade Index: *7 (Moderate).*

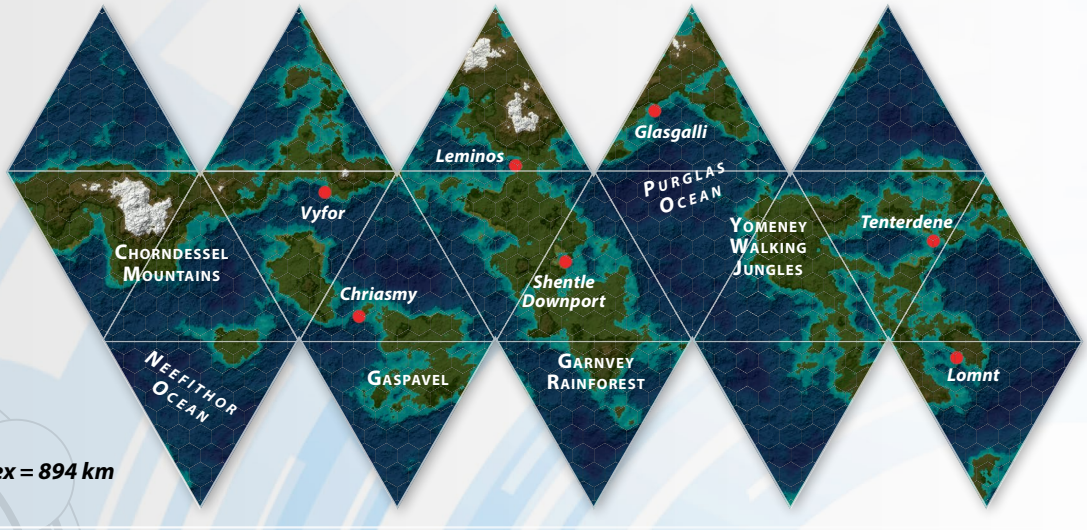
Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *B-class Starport.*

Mindscape: *9 (Systemwide).*

Culture: *Commonality Subculture in Stage Four Cultural Integrity.*



1 Hex = 894 km

GOLTLEIFEN II (DA96739-1)

A rediscovered lost colony world now located in the Sentient Alliance, Goltleifen is a primitive dry garden world. It's searingly hot, with temperatures of 50°C at the poles and in excess of 100°C at the equator, with golden expanses of spectacular shimmering rock outcrops. Its inhabitants are genurgically adapted reptilian xenomorphs who've been here since colonisation. The world has a deep blue sky and bright t-analogue vegetation in autumnal colours. Uninhabitable by unaugmented humans, who require environment suits, Goltleifen stretches the definition of a marginal garden world.

Goltleifen's xenomorphs share the world with a human standard exointelligence, a hive consciousness called the ***sandshoal*** *which lives in the deep desert. It can parasitise the Goltleifeners and drive them into violent rages: Goltleifen warriors often seek out the sandshoals as a rite of passage. Their presence has ensured Goltleifen has remained a barbaric, violent world; today it's paranoid, introverted, and xenophobic, and would be largely ignored if it wasn't for its strategic location, without which it probably wouldn't even have a starport.*

Most Goltleifener xenomorphs live in the polar regions, where the heat is less intense; most Sentient Alliance inhabitants live in the starport, either in orbit or at the poles.

Basic Concept: Golden Desert Garden World With Reptilian Barbarians

STELLAR BODY TYPE: *A-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *3 (Very Young).*

Planetary Bodies: *5.*

Resources: Plentiful*: calcium, hydrogen, iron, magnesium, silicon.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *3 (Very Young).*

Orbit: *6 (Inner Habitable Zone: 483,000,000km).*

Year Length: *3.55 standard years.*

Size: *10 (Large: 38,400km).*

Density: *4 (Low).*

Surface Gravity: *9 (High: 2.5G).*

Day Length: *8 (Increased: 22h).*

Atmospheric Pressure: *9 (High: 2.25atm).*

Surface Temperature: *13 (Hot: 100°C).*

Surface Liquid: *7 (Average: 60%).*

Seasonality: *6 (Low Standard).*

Satellites: *1x ring, 2x planetesimal, 1x small.*

Biosphere: *T-Analogue.*

Habitability: *DM-2 (Hostile).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *REGRESSED WORLD*

Designation: *6 (Sentient Alliance Aligned).*

Population: *7 (Standard: Tens of Millions).*

Government Type: *3 (Feudal).*

Societal Development: *4 (Labour Service).*

Economic System: *Confiscation.*

Openness: *1 (Closed).*

Control Index: *7 (Surveilled).*

Trade Index: *2 (No Trade).*

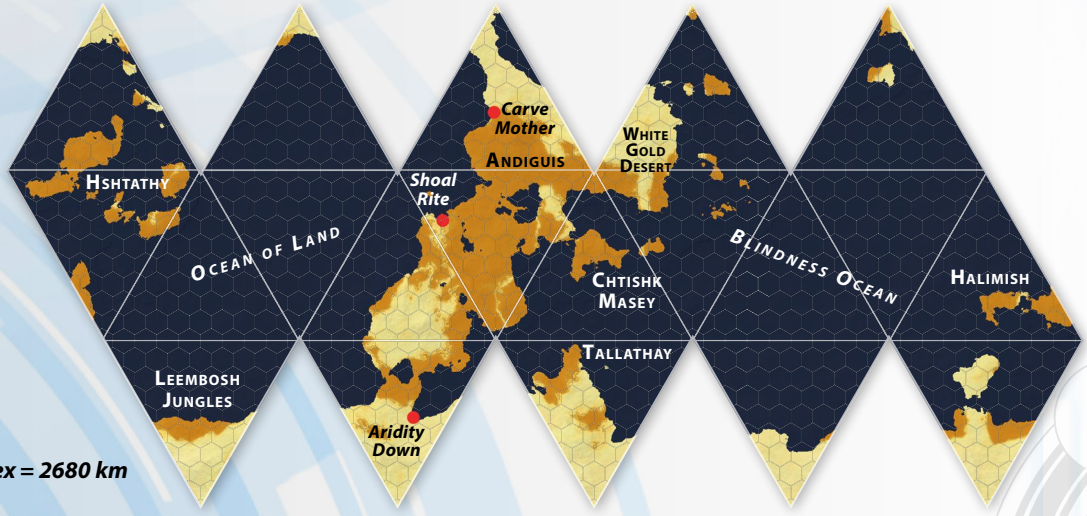
Embargo: *DM+1 (No restricted or vehicle / starship weapons).*

Tech Index: *T2 (Metal Age).*

Starport: *E-class Basic Facility.*

Mindscape: *2 (Temple of Universal Mind).*

Culture: *Sentient Alliance Subculture in Stage Zero Interdiction and Manipulation.*



Marginal Garden World / Regressed World

HARKENAY IV (D874700-0)

Harkenay is one of the more open Dendryphon Protectorate worlds, although the term is relative. It's also the location of a Mindjammer route from the Protectorate into the Sentient Alliance. The Foliate hominids which patrol the system are fairly open and diplomatic, although they direct visitors straight to the starport; the world itself is effectively quarantined, and permits are required to proceed beyond the starport.

Harkenay itself is an old world, with an orange sun, pale blue sky, and yellow-green vegetation. It has a very high level of biodiversity, with a genugic heritage shared with Jendisti (page 356); current thinking is that both worlds occupy a common panspermia diffusion zone. The world is only considered marginal because of its high levels of CO_2, necessitating respirators; otherwise it would be an inferior garden world.

Harkeney shows signs of damage from the Venu War, although not as severe as Jendisti.

Basic Concept: Marginal Garden World Protectorate of Vegetable Intelligences.

STELLAR BODY TYPE: *K-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *10 (Old).*

Planetary Bodies: *10.*

Resources: Plentiful*: manganese, silicon, titanium oxide.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *10 (Old).*

Orbit: *7 (Habitable Zone: 90,000,000km).*

Year Length: *219d.*

Size: *7 (Standard).*

Density: *9 (High Standard).*

Surface Gravity: *8 (High Standard: 1.3G).*

Day Length: *6 (Reduced: 2d).*

Atmospheric Pressure: *7 (Standard: 1.1atm).*

Surface Temperature: *7 (Standard: 14°C).*

Surface Liquid: *6 (Low: 45%).*

Seasonality: *4 (Very Low).*

Satellites: *1x ring, 2x planetesimal.*

Biosphere: *T-Analogue.*

Habitability: *DM+0 (Marginal).*

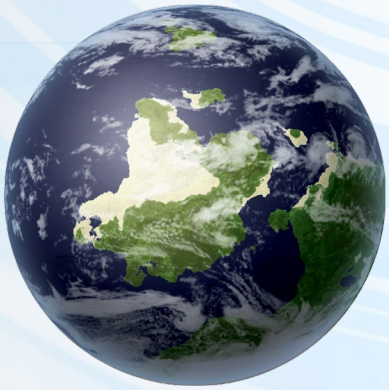
Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *ALIEN CIVILISATION*

Designation: *1 (Alien World).*

Population: *7 (Standard: Tens of Millions).*

Government Type: *2 (Anarchy).*



Societal Development: *3 (Small-scale Communities).*

Economic System: *Barter.*

Openness: *7 (Guarded).*

Control Index: *0 (No Control).*

Trade Index: *0 (No Trade).*

Embargo: *Quarantine.*

Tech Index: *T1 (Stone Age).*

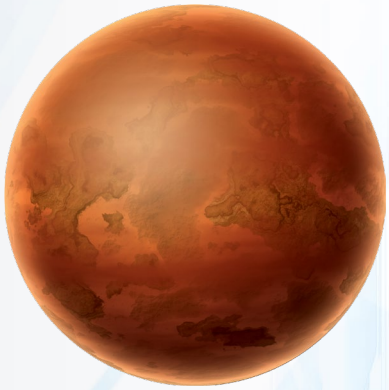
Starport: *E-class Basic Facility.*

Mindscape: *None.*

Culture: *Dendryphon Alien Culture With Commonality Embassy.*

1 Hex = 894 km

HONNYO III (D1A0689-H)



Honnyo is a recently colonised corporacy world inside the Commonality, managed by Honnyo Universal Products. Its major divisions include Honnyo Pharmaceuticals, Honnyo-Midworld Gravitics, and Honnyo Systems.

Unusually for a Commonality world, Honnyo is an extremely young proto-planet, with a surface that is mostly molten magma. It's very hot, with an atmosphere comprising carbon dioxide and sulphur compounds, and no oxygen. Its sky is a dazzling white.

Basic Concept: Corporacy World on a Spectacular Proto-Planet.

STELLAR BODY TYPE: *M-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *2 (Extremely Young).*

Planetary Bodies: *11.*

Resources: Plentiful*: oxides.*

PLANETARY TYPE: *PROTO-PLANET*

Planetary Age: *2 (Extremely Young).*

Orbit: *6 (Inner Habitable Zone: 19,950,000km).*

Year Length: *88d.*

Size: *3 (Planetoid: 1280km).*

Density: *7 (Standard).*

Surface Gravity: *4 (Very Low: 0.1G).*

Day Length: *7 (Standard: 24h. Not yet tidally-locked).*

Atmospheric Pressure: *3 (Very Low: 0.25atm).*

Surface Temperature: *10 (Warm: 20°C).*

Surface Liquid: *8 (High: 75% magma).*

Seasonality: *6 (Low Standard).*

Satellites: *None.*

Biosphere: *None (Maintained).*

Habitability: *DM-6 (Deadly).*

Resources: Plentiful*: heavy elements, radioactives, zanthrium.*

CIVILISATION TYPE: *CORPORACY WORLD*

Designation: *8 (Commonality Autonomous).*

Population: *6 (Low Standard: Millions).*

Government Type: *10 (Corporacy-controlled).*

Societal Development: *12 (Sentience-coordinated Collective).*

Economic System: *Disinterested Resource Allocation.*

Openness: *6 (Equivocal).*

Control Index: *7 (Surveilled).*

Trade Index: *12 (Ubiquitous).*

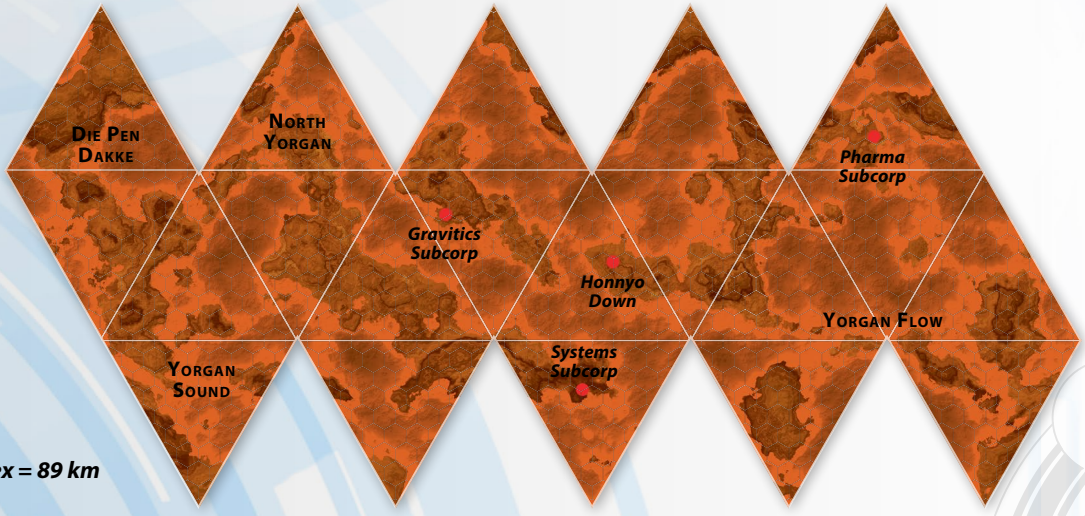
Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *D-class Starport.*

Mindscape: *4 (Global Mindscape).*

Culture: *Commonality Culture in Stage Four Cultural Integrity.*



1 Hex = 89 km

Proto-Planet / Corporacy World

JENDISTI III (D465939-8)

This Dendryphon Protectorate world is much more closed than Harkenay; it was more heavily damaged in the Venu War and its aftermath, and required liberation by the Foliates. Today the hominids form a significant part of the planet's population and its administration; even now the Jendisti Dendrites don't tolerate other humans, and police one another very carefully for aberrant thoughts or actions.

Visitors to Jendisti are permitted as far as the orbital starport by the Foliates, but access to the ground port and the planetary surface requires permission.

Basic Concept: Devastated Alien World of Vegetable Intelligences.

STELLAR BODY TYPE: *G-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *8 (Mature).*

Planetary Bodies: *9.*

Resources: Plentiful*: calcium, other metals.*

PLANETARY TYPE: *STANDARD GARDEN WORLD*

Planetary Age: *8 (Mature).*

Orbit: *6 (Inner Habitable Zone: 126,000,000km).*

Year Length: *285d.*

Size: *5 (Small Standard: 6,400km).*

Density: *10 (High Standard).*

Surface Gravity: *7 (Standard: 1G).*

Day Length: *6 (Reduced: 2d).*

Atmospheric Pressure: *7 (Standard: 0.95atm).*

Surface Temperature: *11 (Warm: 20°C).*

Surface Liquid: *7 (Average: 50%).*

Seasonality: *5 (Low).*

Satellites: *1x ring, 1x planetoid.*

Biosphere: *T-Analogue.*

Habitability: *DM+3 (Agreeable).*

Resources: Plentiful *: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *ALIEN CIVILISATION*

Designation: *1 (Alien World).*

Population: *11 (High: Billions).*

Government Type: *3 (Feudal).*

Societal Development: *6 (Taxation and Representation).*

Economic System: *Regulated Money Economy.*

Openness: *2 (Conservative).*

Control Index: *7 (Surveilled).*

Trade Index: *3 (Inconsequential).*

Embargo: *None.*

Tech Index: *T6 (Age of Genurgy).*

Starport: *E-class Basic Facility.*

Mindscape: *None.*

Culture: *Dendryphon Alien Culture With Commonality Embassy.*

1 Hex = 447 km

KALLISPHERE VI (C210A89-F)

*Kallisphere is a T9 Commonality **tech world**, a lost colony world which has required constant technological intervention throughout its history to remain habitable. Its society is tightly organised around this intervention, and is divided into **clades**, social castes augmented for specific technical positions. Like most tech worlds affected by Rediscovery, it's socially turbulent, and struggling to cope; unauthorised contact with Offworlders is forbidden by the **Outlife taboo.***

Kallisphere is affected by tidal stresses from its white dwarf primary, and gets most of its power from the heat exchange between its two hemispheres. There are ancient ruins on the world which predate human arrival, including a "beacon" which appears to have functioned as recently as 10,000 years ago. The whereabouts of its creators are unknown; research currently points to a t-alternate exointelligence which appears to have simply disappeared.

Basic Concept: Heavily Controlled Tech World in a White Dwarf Orbit.

STELLAR BODY TYPE: *WHITE DWARF*

Stellar Body Age: *10 (Old).*

Planetary Bodies: *8.*

Resources: Plentiful*: helium, magnesium, neon, oxygen.*

PLANETARY TYPE: *TERRESTRIAL PLANET*

Planetary Age: *10 (Old).*

Orbit: *5 (Inner: 600,000km).*

Year Length: *2 standard hours.*

Size: *4 (Small: 3840km).*

Density: *10 (High Standard).*

Surface Gravity: *6 (Low Standard: 0.75G).*

Day Length: *2 standard hours (Tidally-locked).*

Atmospheric Pressure: *2 (Trace: 0.04atm).*

Surface Temperature: *16 (Inferno: 1200°C) / -1 (Frozen: -240°C).*

Surface Liquid: *2 (None).*

Seasonality: *2 (No Seasonality).*

Satellites: *None.*

Biosphere: *No biosphere.*

Habitability: *DM-10 (Deadly).*

Resources: Plentiful*: metals, silicates.*

CIVILISATION TYPE: *TECH WORLD*

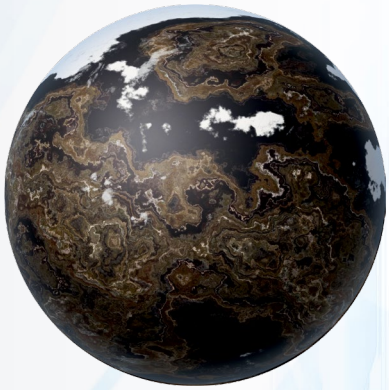
Designation: *9 (Commonality Member).*

Population: *12 (Very High: Tens of Billions).*

Government Type: *12 (Commonality-controlled).*

Societal Development: *12 (Sentience-coordinated Collective).*

Economic System: *Disinterested Resource Allocation.*



Openness: *4 (Self-centred).*

Control Index: *8 (Restricted).*

Trade Index: *7 (Moderate).*

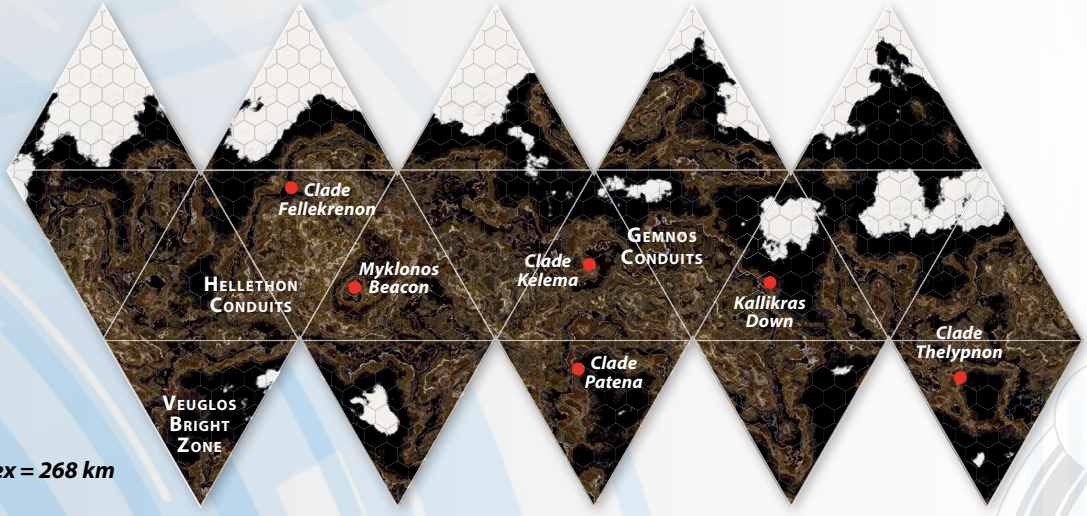
Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *C-class Starport.*

Mindscape: *7 (Systemwide Mindscape).*

Culture: *Commonality Subculture in Stage Two Normalisation.*



LABRYS II (X821600-0)

Located deep in the Q-Zone, Labrys is an aqueous world, with a yellowish-orange sky and deep red vegetation. It orbits a variable star, which periodically bathes its surface in radiation. There's a biosphere, very diverse and subject to rapid mutation, but mostly subterranean. The sun's flare period appears to have increased dramatically over the past 1000 years. It currently flares every 1DD days (1D x 1D).

Despite the harsh conditions, Labrys is nevertheless a lost colony world, home to a highly mutated hominid species with a primitive culture. They live underground, revering the "mutating light" and cultivating edible fungus-analogues.

The Venu have a research presence on Labrys, but otherwise have maintained a surprisingly respectful distance. It's unknown why. The Commonality has officially quarantined the world, although only very occasional Q-Zone patrols ever attempt to enforce it.

Basic Concept: Quarantined World of Radiation Flares and Subterranean Mutants.

STELLAR BODY TYPE: *M-CLASS ERUPTIVE VARIABLE STAR*

Stellar Body Age: *10 (Old).*

Planetary Bodies: *13.*

Resources: Plentiful*: oxides.*

PLANETARY TYPE: *POST-GARDEN WORLD*

Planetary Age: *10 (Old).*

Orbit: *5 (Inner: 13,800,000km).*

Year Length: *33d.*

Size: *8 (Standard: 12,800km).*

Density: *8 (Standard).*

Surface Gravity: *7 (Standard: 1G).*

Day Length: *3 (Extremely Slow: 100d).*

Atmospheric Pressure: *3 (Very Low: 0.4atm).*

Surface Temperature: *12 (Warm: 20°C).*

Surface Liquid: *5 (Very Low: 10%).*

Seasonality: *5 (Low).*

Satellites: *1x ring, 2x planetesimal.*

Biosphere: *T-Analogue.*

Habitability: *DM+0 (Marginal).*

Resources: Plentiful*: hydrocarbons.*

CIVILISATION TYPE: *REGRESSED WORLD*

Designation: *4 (Independent: Embassy).*

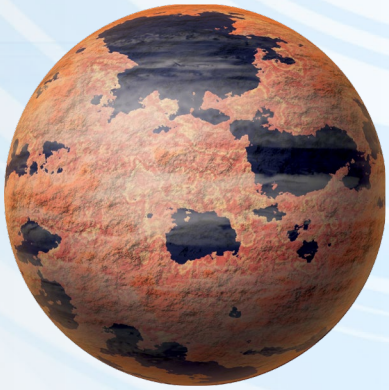
Population: *6 (Low Standard: Millions).*

Government Type: *2 (Anarchy).*

Societal Development: *3 (Small-scale Communities).*

Economic System: *Barter.*

Openness: *1 (Closed).*



Control Index: *0 (No Control).*

Trade Index: *5 (Limited).*

Embargo: *Quarantined.*

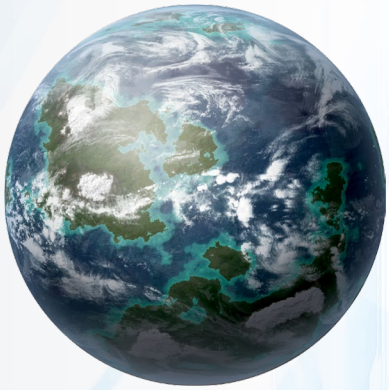
Tech Index: *T1 (Stone Age).*

Starport: *X (No Facilities).*

Mindscape: *None.*

Culture: *Lost Colony Culture in Stage Zero Interdiction and Manipulation.*

MORGNA III (B4666B9-D)



*A Sentient Alliance world, Morgna is also a very wet world of sentient moss **bryophytes**, slow-moving hive intelligences which communicate by electrical signals called **dewlights**, and which attract tourists from across the octant and beyond. The bryophytes maintain a segregated existence from the Sentient Alliance colony, although they play a role in global weather control and communications.*

Basic Concept: Agri-World Dictatorship.

STELLAR BODY TYPE: *K-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *7 (Mature).*

Planetary Bodies: *14.*

Resources: Plentiful*: manganese, silicon, titanium oxide.*

PLANETARY TYPE: *STANDARD GARDEN WORLD*

Planetary Age: *7 (Mature).*

Orbit: *6 (Inner Habitable Zone: 63,000,000km).*

Year Length: *120d.*

Size: *5 (Small Standard: 6,400km).*

Density: *9 (High Standard).*

Surface Gravity: *7 (Standard).*

Day Length: *6 (Reduced: 3d).*

Atmospheric Pressure: *7 (Standard: 1.1atm).*

Surface Temperature: *7 (Standard: 14°C).*

Surface Liquid: *7 (Average: 60%).*

Seasonality: *5 (Low).*

Satellites: *1x planetesimal.*

Biosphere: *T-Analogue.*

Habitability: *DM+4 (Benign).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *AGRI-WORLD*

Designation: *8 (Sentient Alliance Autonomous).*

Population: *5 (Low Standard: Millions).*

Government Type: *7 (Dictatorship).*

Societal Development: *10 (Widespread Intrusive Collective).*

Economic System: *Interested Resource Allocation.*

Openness: *8 (Guarded).*

Control Index: *7 (Surveilled).*

Trade Index: *6 (Low Moderate).*

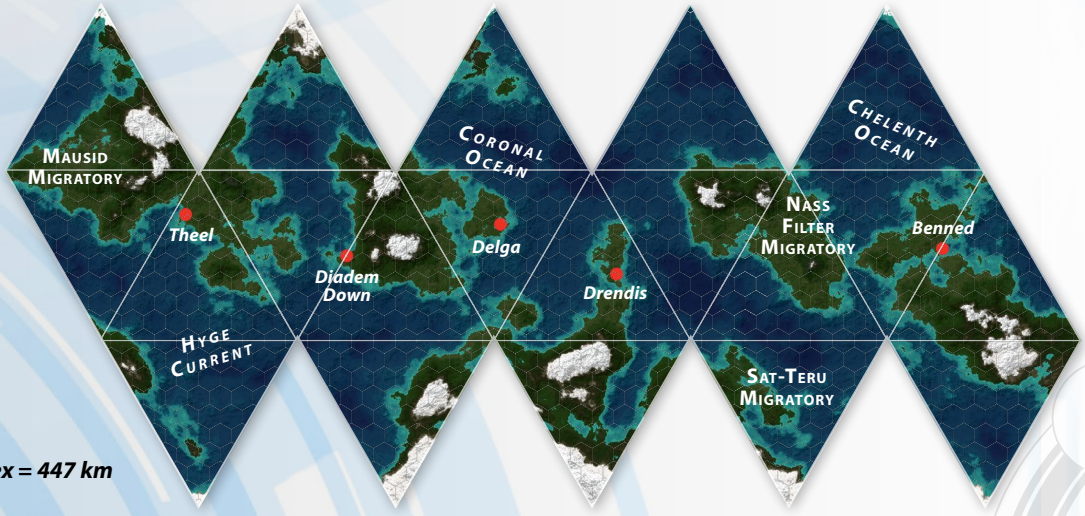
Embargo: *DM+2 (No restricted technologies).*

Tech Index: *T8 (Age of Ubiquitous Intelligence).*

Starport: *B-class Starport.*

Mindscape: *9 (Systemwide).*

Culture: *Sentient Alliance Subculture in Stage Two Normalisation.*



1 Hex = 447 km

MOURNSTONE III (DA88600-6)

Once, everything died here. Mournstone is a Q-Zone world whose star is collapsing, a cold dark world which is nevertheless tectonically active. Its colony journeyed here based on signals from ***before*** *the stellar collapse began; now they live on a severely damaged world of life forms and lichen-analogues hanging onto an extremely marginal environment, a minimal remnant of the world's past biodiversity. It's a dark, grim world of high-G hominids, and neither the Venu nor the Commonality visit very often—although the occasional new trader vessel stops to take on desperate passengers.*

Basic Concept: Failing World Around a Spectacular Collapsing Star

STELLAR BODY TYPE: *COLLAPSING G-CLASS STAR*

Stellar Body Age: *12 (Ancient).*

Planetary Bodies: *5.*

Resources: Plentiful*: carbon, helium, oxygen;* Scarce: *hydrogen.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *12 (Ancient).*

Orbit: *7 (Habitable Zone: 135,000,000km).*

Year Length: *274d.*

Size: *9 (Large Standard: 19,200km).*

Density: *11 (Dense).*

Surface Gravity: *10 (High: 4G).*

Day Length: *6 (Reduced: 4d).*

Atmospheric Pressure: *9 (High: 2.5atm).*

Surface Temperature: *9 (Standard: 14°C).*

Surface Liquid: *9 (Very High: 80%).*

Seasonality: *6 (Low Standard).*

Satellites: *1x ring, 1x planetesimal.*

Biosphere: *T-Analogue.*

Habitability: *DM+2 (Adequate).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *FAILING WORLD*

Designation: *2 (Independent: No Embassy).*

Population: *5 (Low Standard: Millions).*

Government Type: *2 (Anarchy).*

Societal Development: *4 (Labour Service).*

Economic System: *Confiscation.*

Openness: *4 (Self-centred).*

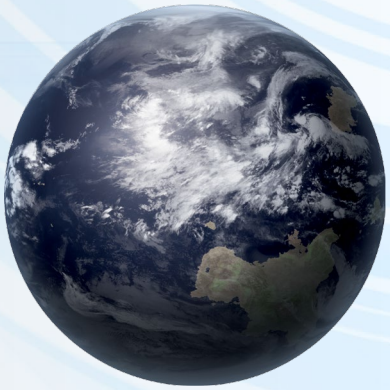
Control Index: *0 (No Control).*

Trade Index: *3 (Inconsequential), except passengers.*

Embargo: *None.*

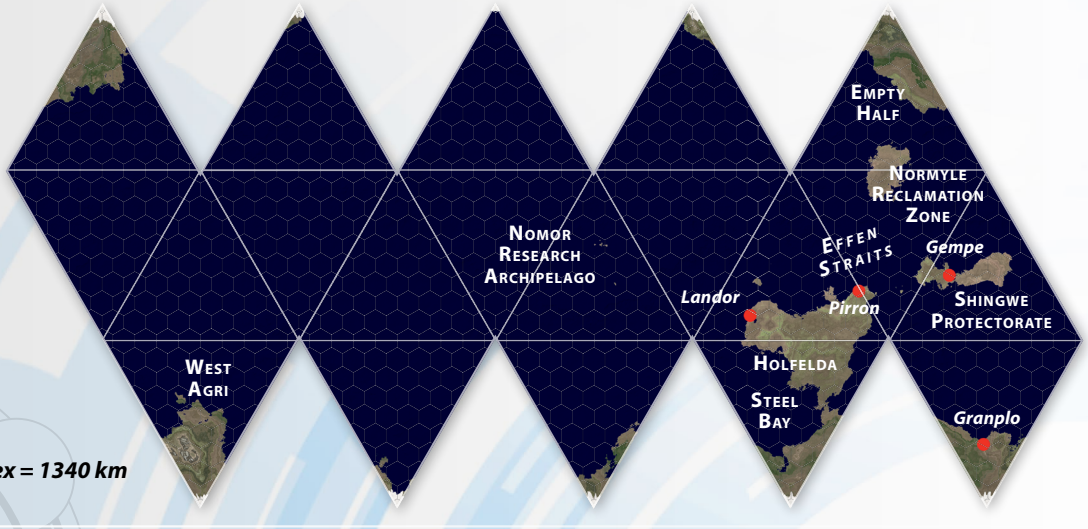
Tech Index: *T5 (Computer Age).*

Starport: *E-class Basic Facility.*



Mindscape: *None.*

Culture: *Hominid Culture beyond Commonality influence.*



1 Hex = 1340 km

NIJMEGEN II (A867937-H)

A Sentient Alliance world and capital of the Heritage Contestation octant, Nijmegen is a superior garden world of lowland swamp territories, irrigation canals, reclaimed land, and some very versatile and exotic aquatic foods. The Commonality has a huge diplomatic presence here, including maintaining the Sentient Alliance's core Mindscape hub for the subsector, and providing extensive technical and cultural support.

Nijmegen is a rediscovered xenomorph lost colony world, originally peopled by mid-GD felines and canids, although today the population is very diverse. The world is known as a major cultural centre for archaic weapons martial arts.

Basic Concept: Sentient Alliance Garden World Octant Capital.

STELLAR BODY TYPE: *G-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *8 (Mature).*

Planetary Bodies: *7.*

Resources: Plentiful*: calcium, other metals.*

PLANETARY TYPE: *SUPERIOR GARDEN WORLD*

Planetary Age: *8 (Mature).*

Orbit: *7 (Habitable Zone: 135,000,000km).*

Year Length: *361d.*

Size: *7 (Standard: 12,800km).*

Density: *8 (Standard).*

Surface Gravity: *7 (Standard: 0.95G).*

Day Length: *7 (Standard: 25h).*

Atmospheric Pressure: *7 (Standard: 0.95atm).*

Surface Temperature: *7 (Standard: 14°C).*

Surface Liquid: *8 (High: 70%).*

Seasonality: *7 (Standard).*

Satellites: *1x ring, 2x planetoids.*

Biosphere: *T-Congruent.*

Habitability: *DM+4 (Benign).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *SENTIENT ALLIANCE HUB*

Designation: *9 (Sentient Alliance Member).*

Population: *11 (High: Billions).*

Government Type: *8 (Oligarchy).*

Societal Development: *12 (Sentience-coordinated Collective).*

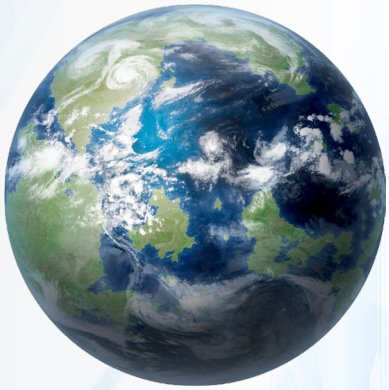
Economic System: *Disinterested Resource Allocation.*

Openness: *9 (Self-critical).*

Control Index: *5 (Laissez-faire).*

Trade Index: *10 (Extensive).*

Embargo: *None.*

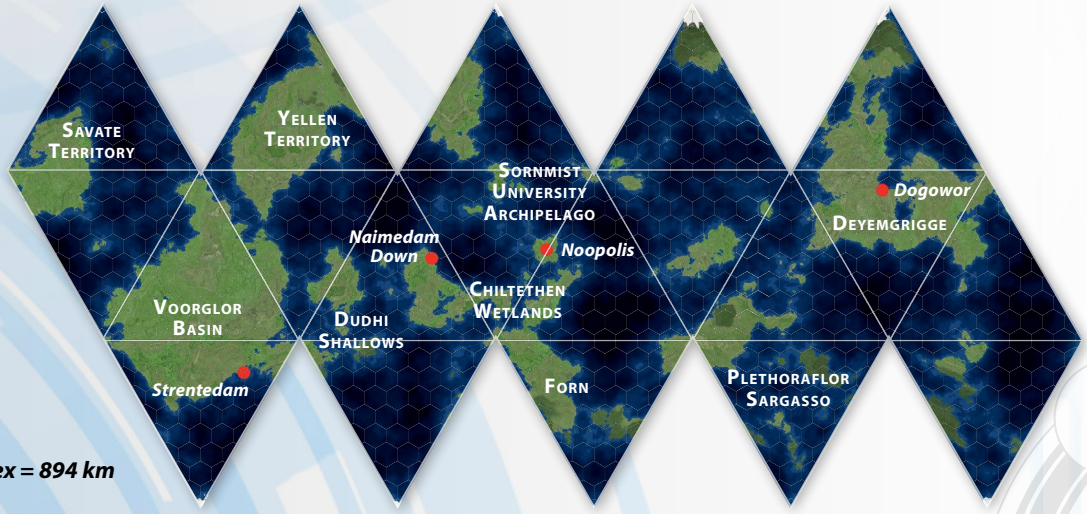


Tech Index: *T9 (Second Age of Space).*

Starport: *A-class Octant Hub.*

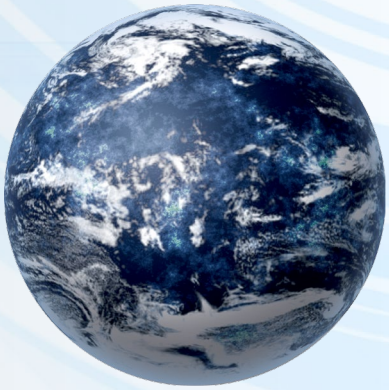
Mindscape: *9 (Systemwide Mindscape).*

Culture: *Sentient Alliance Culture in Stage Four Cultural Integrity.*



1 Hex = 894 km

PLAYANOVA IV (C86A935-G)



*A Sentient Alliance waterworld with beautiful archipelagos of living coral, Playanova is a well-known playground and gambling centre; people will gamble on **anything** here. It has a transplant biosphere with a fairly low biodiversity, and its native population is mostly aquatic xenomorphs. It has a deep blue sky, and bluish-white vegetation.*

Basic Concept: Beautiful Casino Oceanworld.

STELLAR BODY TYPE: *F-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *5 (Maturing).*

Planetary Bodies: *5.*

Resources: Plentiful*: calcium, chromium, hydrogen, iron.*

PLANETARY TYPE: *OCEANWORLD*

Planetary Age: *5 (Maturing).*

Orbit: *6 (Inner Habitable Zone: 231,000,000km).*

Year Length: *611d.*

Size: *7 (Standard: 12,400km).*

Density: *6 (Low Standard).*

Surface Gravity: *6 (Low Standard: 0.7G).*

Day Length: *6 (Reduced: 2d).*

Atmospheric Pressure: *7 (Standard: 0.85atm).*

Surface Temperature: *10 (Warm: 20°C).*

Surface Liquid: *11 (Oceanworld: 100%).*

Seasonality: *11 (High Seasonality).*

Satellites: *1x planetesimal, 1x small.*

Biosphere: *Transplant.*

Habitability: *DM+3 (Agreeable).*

Resources: Plentiful*: biosphere, hydrogen, oxygen, water.*

CIVILISATION TYPE: *SENTIENT ALLIANCE CIVILISATION*

Designation: *9 (Sentient Alliance Member).*

Population: *11 (High: Billions).*

Government Type: *8 (Oligarchy).*

Societal Development: *12 (Sentience-coordinated Collective).*

Economic System: *Disinterested Resource Allocation.*

Openness: *8 (Guarded).*

Control Index: *4 (Speech).*

Trade Index: *7 (Moderate).*

Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *C-class Starport.*

Mindscape: *3 (Local Node).*

Culture: *Sentient Alliance Culture in Stage Four Cultural Integrity.*

1 Hex = 866 km

SHAY-SHAY III-E (D2446B9-G)

Shay-shay is a Commonality world, and the moon of a gas giant in the inner habitable zone. It's a recent neo-Shinean colony (ie not a world colonised by the Great Western Flourishing which settled An-Fang and Doy-Su), and a busy interstellar crossroads.

The world has a very pale blue sky, and red and violet vegetation. Its atmosphere is tainted with high levels of CO_2; its inhabitants are adapted to this, and the diverse t-analogue biosphere, but visitors require breathers.

There's a high human exointelligence on Shay-shay which happily shares the world with the neo-Shineans. It's keeping the population lower than the colonists would normally like, and its influence has also led to cultural changes: this neo-Shinean culture is a lot more open than normal.

Basic Concept: Busy Interstellar Crossroads With an Exointelligent Patron.

STELLAR BODY TYPE: *K-CLASS RED GIANT*

Stellar Body Age: *10 (Old).*

Planetary Bodies: *5.*

Resources: Plentiful*: manganese, silicon, titanium oxide.*

PLANETARY TYPE: *INFERIOR GARDEN WORLD*

Planetary Age: *10 (Old).*

Orbit: *6 (Inner Habitable Zone: 23.8AU).*

Year Length: *14.7 standard years.*

Size: *4 (Small: 3840km).*

Density: *9 (High Standard).*

Surface Gravity: *6 (Low Standard: 0.6G).*

Day Length: *8 (Increased: 22h, tidal-lock to gas giant).*

Atmospheric Pressure: *5 (Low: 0.6atm).*

Surface Temperature: *11 (Warm: 20°C).*

Surface Liquid: *6 (Low: 40%).*

Seasonality: *9 (High Standard).*

Satellites: *n/a.*

Biosphere: *T-Analogue.*

Habitability: *DM+0 (Tainted, high CO2).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *CULTURE WORLD*

Designation: *7 (Culture World).*

Population: *6 (Low Standard: Millions).*

Government Type: *7 (Dictatorship).*

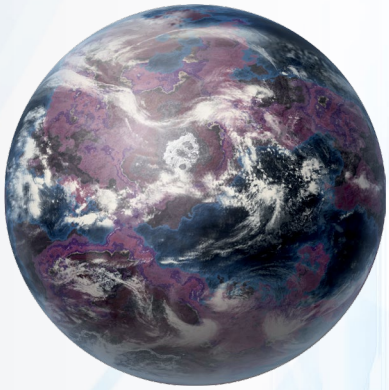
Societal Development: *12 (Sentience-coordinated Collective).*

Economic System: *Disinterested Resource Allocation.*

Openness: *9 (Self-critical).*

Control Index: *7 (Surveilled).*

Trade Index: *9 (High Moderate).*



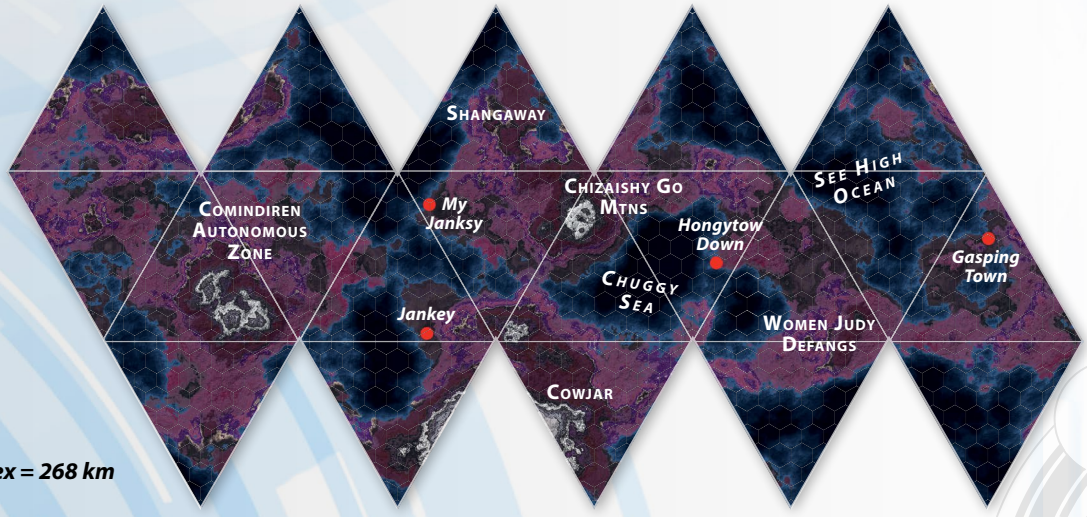
Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *D-class Starport.*

Mindscape: *6 (Systemwide).*

Culture: *Neo-Shinean Subculture in Stage Four Cultural Integrity.*



1 Hex = 268 km

SWORDSTAR I (D4837B7-8)

A Sentient Alliance world with sympathies with the Blade Conglomerate, Swordstar is an arid world of martial ursoid xenomorphs. It's also an old, old system; the hot subdwarf primary was once huge, and destroyed or sterilised all the planets in system when it collapsed. The Swordstar biosphere itself is recent, having developed since the star shrunk, and is mostly transplanted from the initial colony expedition.

Basic Concept: Martial World of Ursoid Knights.

STELLAR BODY TYPE: *B-CLASS HOT SUBDWARF*

Stellar Body Age: *10 (Old).*

Planetary Bodies: *2.*

Resources: Plentiful*: helium; Scarce: hydrogen.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *10 (Old).*

Orbit: *7 (Habitable Zone: 450,000,000km).*

Year Length: *9.8 standard years.*

Size: *5 (Small Standard: 6,400km).*

Density: *11 (Dense).*

Surface Gravity: *8 (High Standard: 1.5G).*

Day Length: *6 (Reduced: 3d).*

Atmospheric Pressure: *9 (High: 1.5atm).*

Surface Temperature: *11 (Warm: 20°C).*

Surface Liquid: *6 (Low: 35%).*

Seasonality: *10 (High Standard).*

Satellites: *None.*

Biosphere: *Transplant.*

Habitability: *DM+1 (Challenging).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *REGRESSED WORLD*

Designation: *4 (Independent: Sentient Alliance Embassy).*

Population: *7 (Standard: Tens of Millions).*

Government Type: *4 (Monarchy).*

Societal Development: *6 (Taxation and Representation).*

Economic System: *Regulated Money Economy.*

Openness: *6 (Equivocal).*

Control Index: *5 (Laissez-faire).*

Trade Index: *5 (Limited).*

Embargo: *None.*

Tech Index: *T6 (Age of Genurgy).*

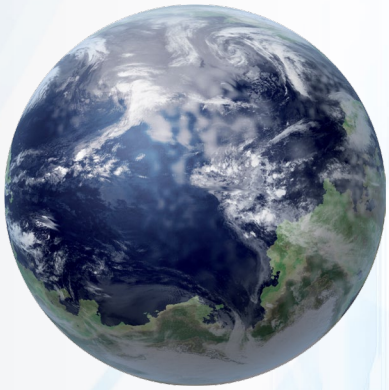
Starport: *E-class Basic Facility.*

Mindscape: *None.*

Culture: *Sentient Alliance Subculture in Stage Two Normalisation.*

1 Hex = 447 km

TAMESLOND III (B866989-H)



Tameslond is a Commonality corporacy world originating from Yarp on Old Earth. Its corporacy, Tameslond Derivations, works closely with SCI Force throughout Outremer, strategically deploying economic systems to further integrate rediscovered cultures.

Basic Concept: Garden World HQ of Tameslond Derivations.

STELLAR BODY TYPE: *G-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *7 (Mature).*

Planetary Bodies: *10.*

Resources: Plentiful*: calcium, other metals.*

PLANETARY TYPE: *STANDARD GARDEN WORLD*

Planetary Age: *7 (Mature).*

Orbit: *7 (Habitable Zone: 180,000,000km).*

Year Length: *475d.*

Size: *7 (Standard: 12,400km).*

Density: *8 (Standard).*

Surface Gravity: *7 (Standard: 1.1G).*

Day Length: *7 (Standard: 29h).*

Atmospheric Pressure: *8 (Standard: 1.1atm).*

Surface Temperature: *7 (Standard: 14°C).*

Surface Liquid: *7 (Average: 60%).*

Seasonality: *8 (Standard).*

Satellites: *2x planetesimal.*

Biosphere: *T-Congruent.*

Habitability: *DM+4 (benign).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *CORPORACY WORLD*

Designation: *8 (Commonality Autonomous).*

Population: *11 (High: Billions).*

Government Type: *9 (Corporacy-controlled).*

Societal Development: *12 (Sentience-coordinated Collective).*

Economic System: *Disinterested Resource Allocation.*

Openness: *5 (Equivocal).*

Control Index: *7 (Surveilled).*

Trade Index: *12 (Ubiquitous).*

Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *B-class Starport.*

Mindscape: *11 (Mindscape Hub).*

Culture: *Commonality Culture in Stage Four Cultural Integrity.*

1 Hex = 866 km

VANGUARD II-D (AA00789-H)

Iceball / Depot

A Space Force depot right on the edge of Commonality Space, Vanguard is a very bright star with a very young planetary system, including a central dust disk which extends to several thousand AU. The world of Vanguard itself is an iceball in orbit around a very large gas giant, which has itself an extensive system of moons. There's also an ice giant and a distant iceball in the star system.

A non-aqueous world, Vanguard II-d is very cold, very clear, and pristine: there's no atmosphere to speak of, no biosphere to damage, and Space Force has pretty much free rein here. The depot has extensive facilities throughout the system, and there's even rumoured to be a 3-Space Instrumentality research station in an off-limits region of the dust disk.

The Vanguard II gas giant is in an eccentric orbit that may take it into the system dust cloud in the next 30,000 years. It's theorised that Vanguard will undergo significant global warming, although the timescales are so large as to make a designation of extreme seasonality meaningless, if literally correct.

Basic Concept: Space Force Depot on a Brilliant Iceball World.

STELLAR BODY TYPE: *O-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *2 (Extremely Young).*

Planetary Bodies: *3.*

Resources: Plentiful*: carbon, helium, hydrogen, nitrogen, oxygen, silicon.*

PLANETARY TYPE: *ICEBALL*

Planetary Age: *2 (Extremely Young).*

Orbit: *11 (Extreme Outer: 8000AU).*

Year Length: *51,232 standard years.*

Size: *9 (Large Standard: 19,200km).*

Density: *5 (Low Standard).*

Surface Gravity: *7 (Standard: 0.9G).*

Day Length: *8h (tidal lock to gas giant).*

Atmospheric Pressure: *2 (Trace).*

Surface Temperature: *-1 (Frozen: -240°C).*

Surface Liquid: *2 (None).*

Seasonality: *None.*

Satellites: *n/a.*

Biosphere: *None.*

Habitability: *DM-20 (Deadly).*

Resources: Plentiful *: frozen nitrogen, ethane and methane, carbon monoxide, ammonium hydrates, water ice.*

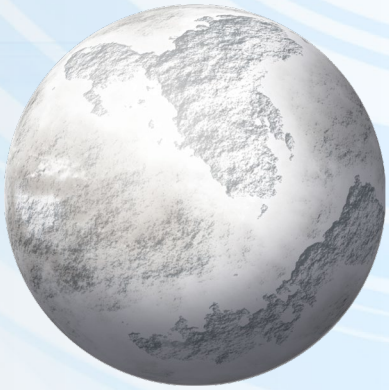
CIVILISATION TYPE: *DEPOT*

Designation: *9 (Commonality Member).*

Population: *7 (Standard: Tens of Millions).*

Government Type: *11 (Commonality-controlled).*

Societal Development: *12 (Sentience-coordinated Collective).*



Economic System: *Disinterested Resource Allocation.*

Openness: *7 (Guarded).*

Control Index: *9 (Repressive).*

Trade Index: *3 (Inconsequential).*

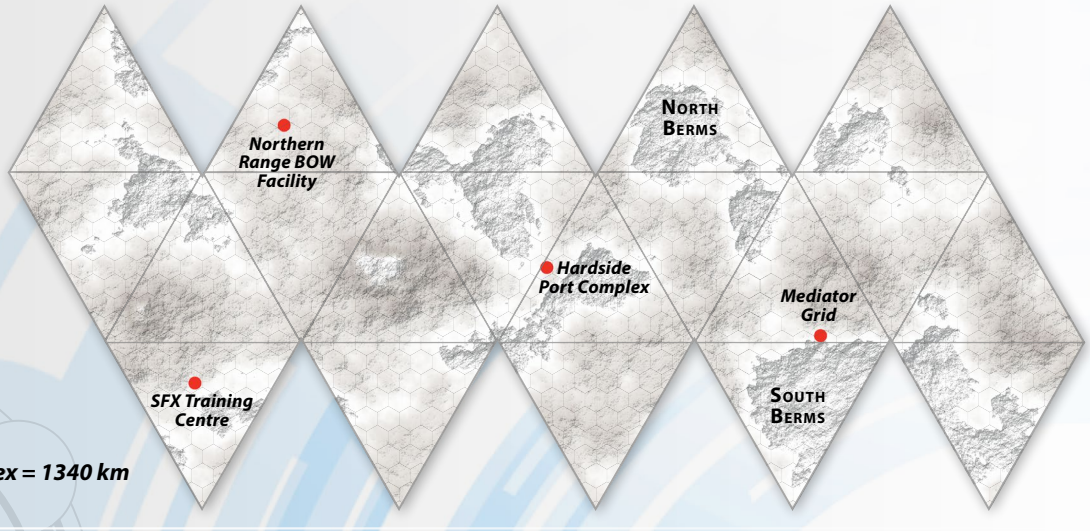
Embargo: *None.*

Tech Index: *T9 (Second Age of Space).*

Starport: *A-class Starport.*

Mindscape: *9 (Systemwide Mindscape).*

Culture: *Commonality Culture in Stage Four Cultural Integrity.*



YAND (CA96738-B)

Although nominally a Sentient Alliance world, Yand sits on the very edge of Sentient Alliance space, hard up against the border with the Zarus Dominate, and is inhabited by hominids rather than xenomorphs. It has an ancient ring orbital housing its ***Tensor Station*** *starport; the statistics below refer specifically to this* ***Mandala*** *orbital. Conditions on the planetary surface are more primitive.*

Note that Yand is the setting for the quickstart introductory adventure **Dominion**.

Basic Concept: Ancient Hominid Orbital Around a High-G Garden Moon.

STELLAR BODY TYPE: *G-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *8 (Mature).*

Planetary Bodies: *3.*

Resources: Plentiful*: calcium, other metals.*

PLANETARY TYPE: *MARGINAL GARDEN WORLD*

Planetary Age: *8 (Mature).*

Orbit: *7 (Habitable Zone: 142,500,000km).*

Year Length: *329d.*

Size: *9 (Large Standard: 25,600km).*

Density: *9 (High Standard).*

Surface Gravity: *9 (High: 3.5G).*

Day Length: *2.88d: tidal lock.*

Atmospheric Pressure: *9 (High: 2.5atm).*

Surface Temperature: *10 (Warm: 20°C).*

Surface Liquid: *8 (High: 65%).*

Seasonality: *11 (High).*

Satellites: *1x ring.*

Biosphere: *T-Analogue.*

Habitability: *DM+0 (Marginal : Tainted by volcanic sulphur compounds).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *UNITED WORLD*

Designation: *6 (Commonality Aligned).*

Population: *7 (Standard: Tens of Millions).*

Government Type: *8 (Oligarchy).*

Societal Development: *7 (Early Redistributive Model).*

Economic System: *Regulated Money Economy.*

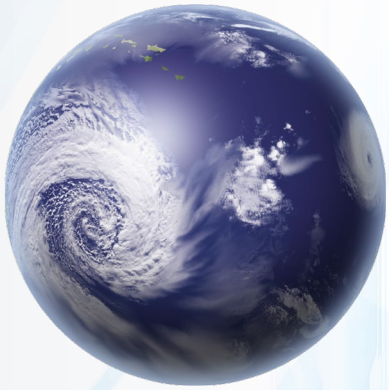
Openness: *6 (Equivocal).*

Control Index: *6 (Influenced).*

Trade Index: *9 (High Moderate).*

Embargo: *DM+2 (No restricted technologies).*

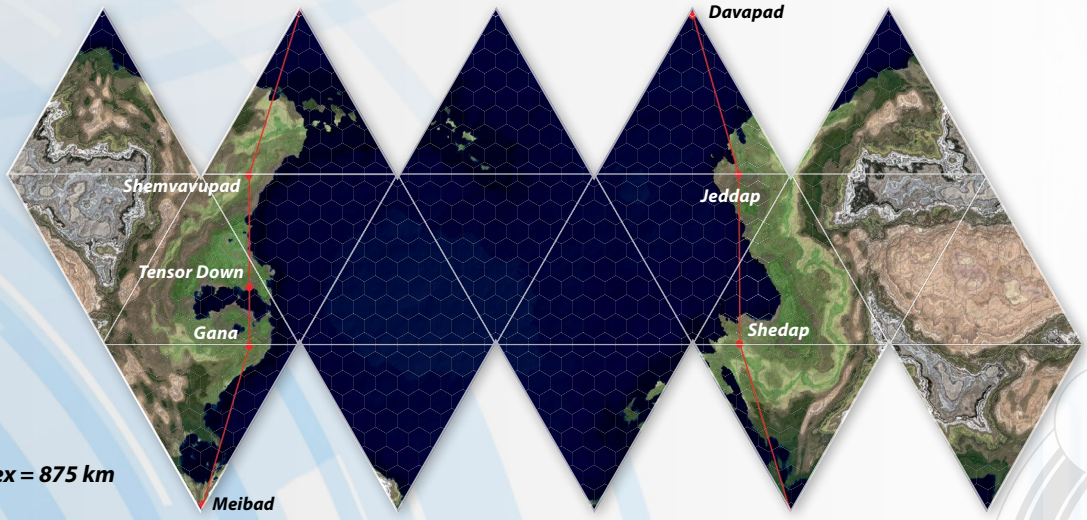
Tech Index: *T7 (First Age of Space).*



Starport: *C-class Starport (Tensor Station).*

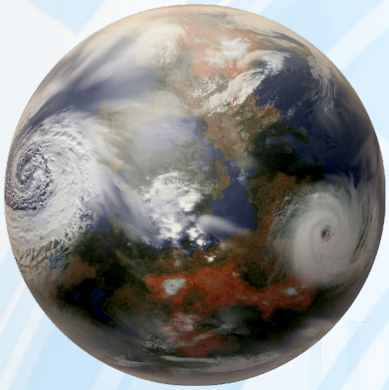
Mindscape: *5 (Global).*

Culture: *Yandic Hominid Culture in Stage 3 Acculturation.*



1 Hex = 875 km

ZARUS PRIME (D8649B9-A)



*Capital of the Zarus Dominate, Zarus Prime has a large Venu presence. The world has a **very** dangerous ecosystem, which has bred a fierce and aggressive culture. From its feudal beginnings the Dominate has evolved into a dictatorship, although its feudal instincts are still very strong.*

Basic Concept: Harsh Mainworld of the Zarus Dominate.

STELLAR BODY TYPE: *K-CLASS MAIN SEQUENCE STAR*

Stellar Body Age: *8 (Mature).*

Planetary Bodies: *12.*

Resources: Plentiful*: manganese, silicon, titanium oxide.*

PLANETARY TYPE: *INFERIOR GARDEN WORLD*

Planetary Age: *6 (Mature).*

Orbit: *6 (Inner Habitable Zone: 63,000,000km).*

Year Length: *120d.*

Size: *7 (Standard).*

Density: *7 (Standard).*

Surface Gravity: *7 (Standard: 1.1G).*

Day Length: *6 (Reduced: 3d).*

Atmospheric Pressure: *7 (Standard: 1.2atm).*

Surface Temperature: *10 (Warm: 20°C).*

Surface Liquid: *6 (Low: 40%).*

Seasonality: *4 (Very Low).*

Satellites: *1x ring, 2x planetesimal.*

Biosphere: *T-Analogue.*

Habitability: *DM+3 (Agreeable).*

Resources: Plentiful*: biosphere, hydrocarbons, metals, organics, water.*

CIVILISATION TYPE: *INTERSTELLAR HUB*

Designation: *4 (Independent: Venu Embassy).*

Population: *11 (High: Billions).*

Government Type: *7 (Dictatorship).*

Societal Development: *10 (Widespread Intrusive Collective).*

Economic System: *Interested Resource Allocation.*

Openness: *8 (Guarded).*

Control Index: *10 (Total).*

Trade Index: *8 (Moderate).*

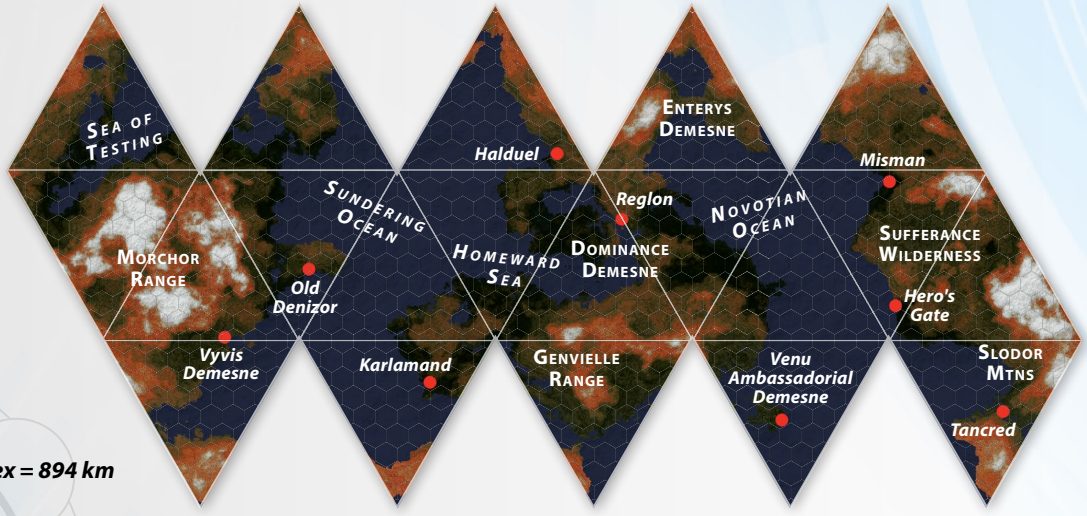
Embargo: *DM+5 (No higher TI).*

Tech Index: *T7 (First Age of Space).*

Starport: *D-class.*

Mindscape: *3 (Limited Proto-Mindscape).*

Culture: *Zarus Dominate Culture beyond Commonality influence.*



1 Hex = 894 km

MINDJAMMER™

TRANSHUMAN ADVENTURE IN THE SECOND AGE OF SPACE

CHARACTER SHEET

Name:
Culture:
Tech Index:
Homeworld:
Memes:

Genotype:
Longevity Packages:
Economic System:

Occupation:
Actual Age:
Apparent Age:

CHARACTERISTICS

Strength DM	Endurance DM	Education DM
Dexterity DM	Intellect DM	Social DM

RESOURCES

Resource Points:

Credits:

SKILLS

Admin	Engineer ( )	Interface ( )	Pilot ( )
Advocate	Engineer ( )	Interface ( )	Pilot ( )
Animals ( )	Engineer ( )	Interface ( )	Pilot ( )
Animals ( )	Explosive	Investigate	Profession ( )
Athletics ( )	Flyer ( )	Jack-of-all-Trades	Profession ( )
Athletics ( )	Flyer ( )	Language ( )	Recon
Athletics ( )	Gambler	Language ( )	Science ( )
Art ( )	Gunner ( )	Language ( )	Science ( )
Art ( )	Gunner ( )	Leadership	Social Science ( )
Astrogation	Gun Cbt ( )	Mechanic	Social Science ( )
Broker	Gun Cbt ( )	Medic ( )	Seafarer ( )
Carouse	Gun Cbt ( )	Medic ( )	Stealth
Deception	Heavy Weapons ( )	Melee ( )	Steward
Diplomat	Heavy Weapons ( )	Melee ( )	Streetwise
Drive ( )	Informatics ( )	Melee ( )	Survival
Drive ( )	Informatics ( )	Navigation	Tactics ( )
Drive ( )	Informatics ( )	Persuade	Vac Suit

HALO

Technopsi Points:

OTHER AUGMENTATIONS

Name TI Name TI

CONNECTIONS

STUDY PERIOD

Training in Skill:

Weeks: /

Study Periods Complete:

EQUIPMENT

Weapon TI Range Damage KG Mag Traits

Armour Rad Protection KG Options

Equipment Mass Equipment Mass

Total Carried Mass:

TRAITS

NOTES

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MINDJAMMER™

TRANSHUMAN ADVENTURE IN THE SECOND AGE OF SPACE

SHIP RECORD SHEET

COMPONENTS

TI	Tons	Cost (MCr)

NAME

CREW

RUNNIG COSTS

Maintenance Cost

Purchase Cost

POWER REQUIREMENTS

Gravity Engines

Weapons

Basic Systems

Planing Engines

Sensors

Hull Points

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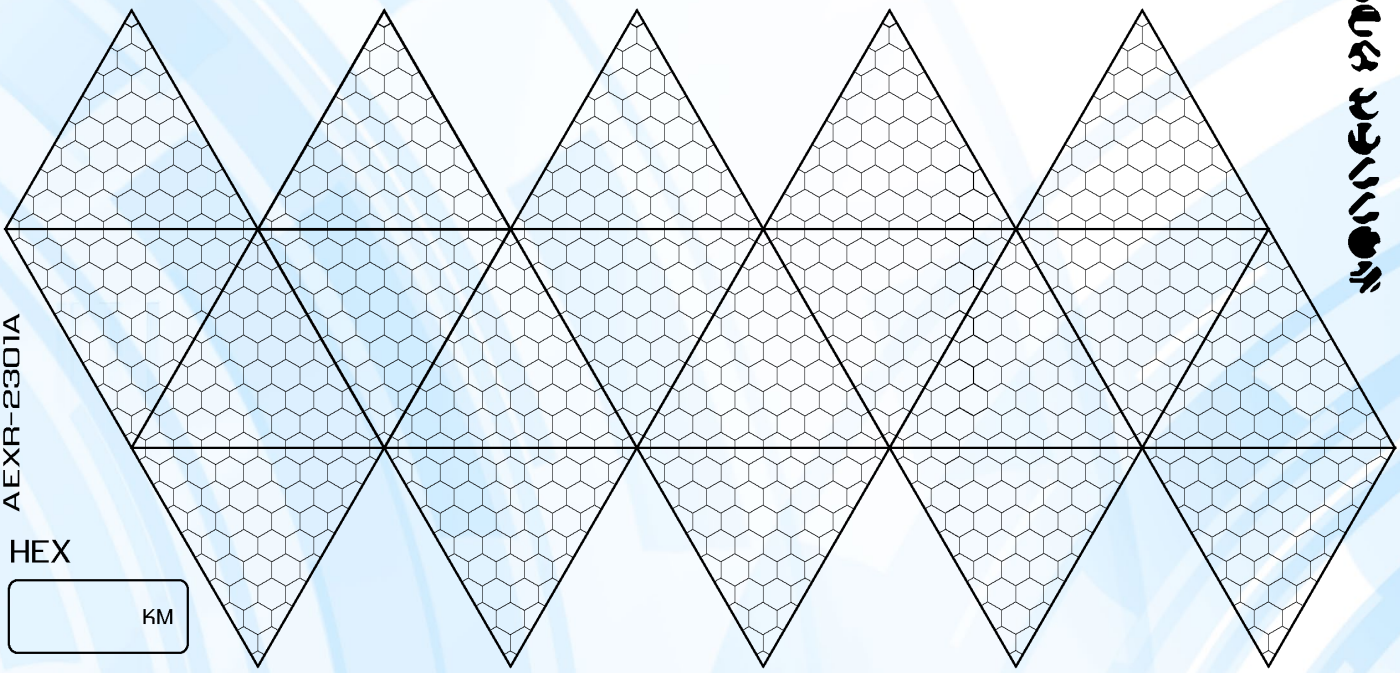
PLANETARY MAP

BASIC CONCEPT:



AEXR-2301A

HEX

KM

PLANETARY TYPE:
AGE:
ORBIT:
SIZE:
YEAR LENGTH:
DAY LENGTH:
DENSITY:
GRAVITY:
ATMOS PRESSURE:
TEMPERATURE:
LIQUID:
SEASONALITY:
SATELLITES:
HABITABILITY:
BIOSPHERE:

CIVILISATION TYPE:
DESIGNATION:
POPULATION:
GOVERNMENT:
SOCIETAL DEV:
OPENNESS:
CONTROL INDEX:
TRADE INDEX:
EMBARGO:
TECH INDEX:
STARPORT:
MINDSCAPE:
CULTURE:

PLANETARY EVENTS (2D)

2
3
4
5
6
7
8
9
10
11
12

KEY

POLITICAL BORDERS:
MOUNTAINS:
ROUGH:
STARPORT:
COASTLINE:
ICE PACK:
VEGETATION:
CITY:

PAE PLANETARY MAP 267/10.4 x-y projection.
Issued Lalanthe Space Force cartography
14/e/r-Alpha, Lagrange-2
Also available in holo and Virtuality

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SYSTEM SCHEMATIC

SYSTEM NAME: | CIVILISATION: | DESIGNATION:

STARPORT: | POPULATION: | MINDSCAPE:

NAME	PLANETARY TYPE		BASIC CONCEPT
		EXTREME OUTER (x40)	
		OUTER (x10)	
		OUTER (x5)	
		OUTER (x1.5)	
		HABITABLE ZONE OUTER (x1.5)	
		HABITABLE ZONE (x1.0)	
		HABITABLE ZONE INNER (x0.7)	
		INNER (x0.4)	
		EXTREME INNER ORBIT (x0.1)	

NAME	STELLAR BODY TYPE		BASIC CONCEPT
		PRIMARY	

2D	SYSTEM EVENTS
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

H-ZONE ORBITAL DISTANCE | TRADE INDEX | CONTROL INDEX

SKY COLOUR

RESOURCES AND OTHER NOTES

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OCTANT

OCTANT OF THE SUBSECTOR

LEGEND

PCXR-001A

10 LY

NCE Octant Schematic 193/101.4 x-y projection.
Issued Titania Space Force ordinance
14/e/r-Alpha, Titan Lagrange-2
Also available in holo and Virtuality

KEY

- STAR SYSTEM
- QUARANTINE
- EMBARGO
- OCTANT CAPITAL
- SUBSECTOR CAPITAL
- SECTOR CAPITAL
- FAR GATE

- MINDJAMMER ROUTE
- EXTRA-TRANSECT ROUTE
- BORDER (POLITICAL)
- DEPOT
- DUST CLOUD
- NEBULA
- RIFT

+50 to – 50 Z COORDINATE

GALACTIC PLANE NORTH

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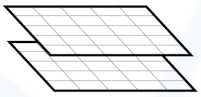
SUBSECTOR

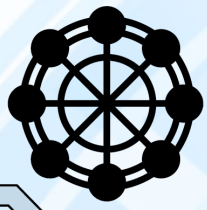
TX OF THE SECTOR

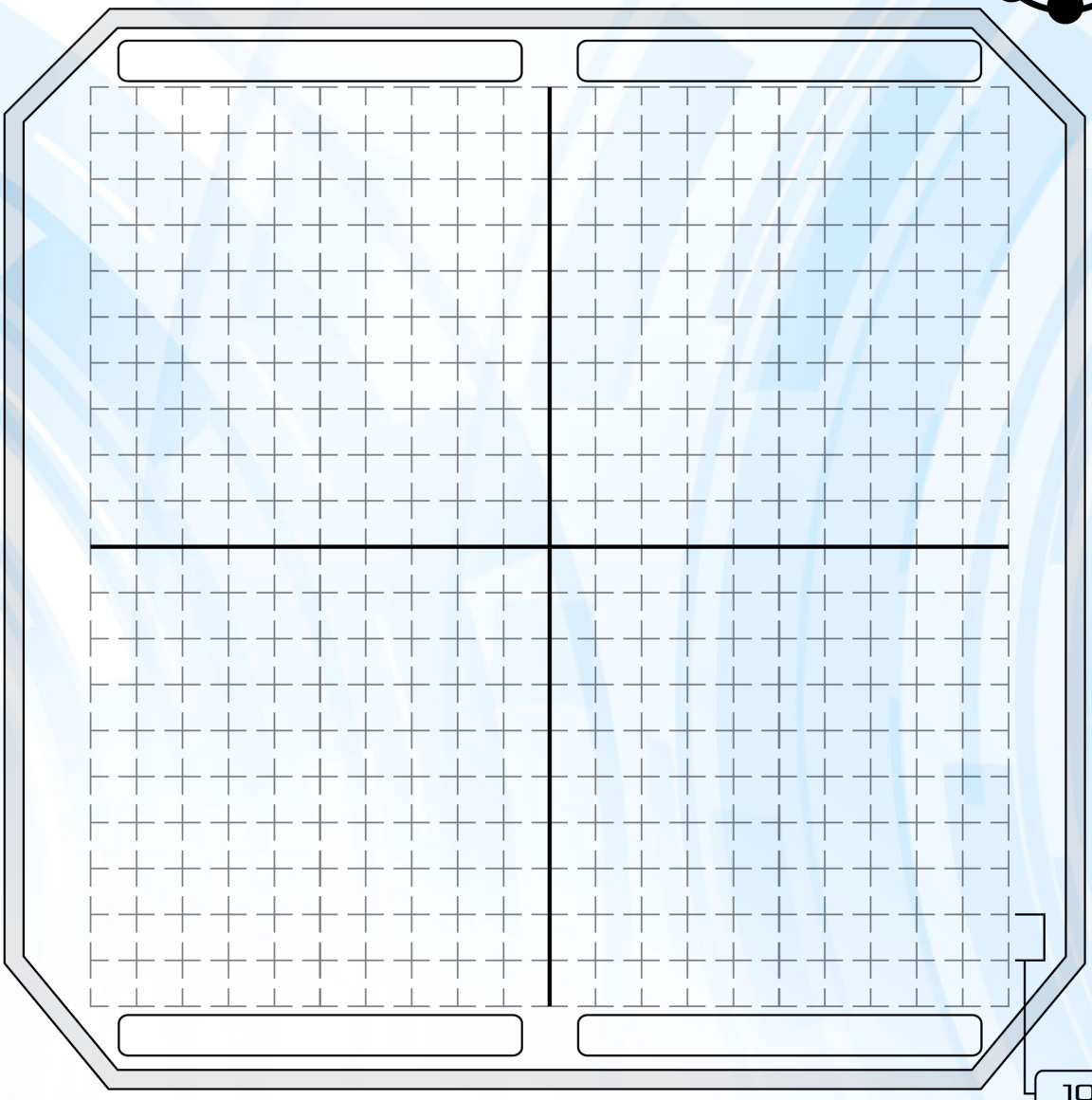
GALACTIC PLANE NORTH



○ UPPER TRANSECT

○ LOWER TRANSECT





10 LY

NCE Sub Sector Schematic 7/1.4 x-y projection.
Issued Titania Space Force ordinance
14/e/r-Alpha, Titan Lagrange-2
Also available in holo and Virtuality

KEY

- STAR SYSTEM
- QUARANTINE
- EMBARGO
- DEPOT
- OCTANT CAPITAL
- SUBSECTOR CAPITAL
- SECTOR CAPITAL
- FAR GATE
- DUST CLOUD
- NEBULA
- RIFT
- +50 to – 50 Z COORDINATE
- MINDJAMMER ROUTE
- EXTRA-TRANSECT ROUTE
- BORDER (POLITICAL)

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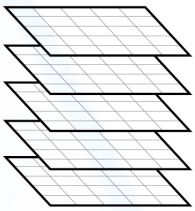
SECTOR

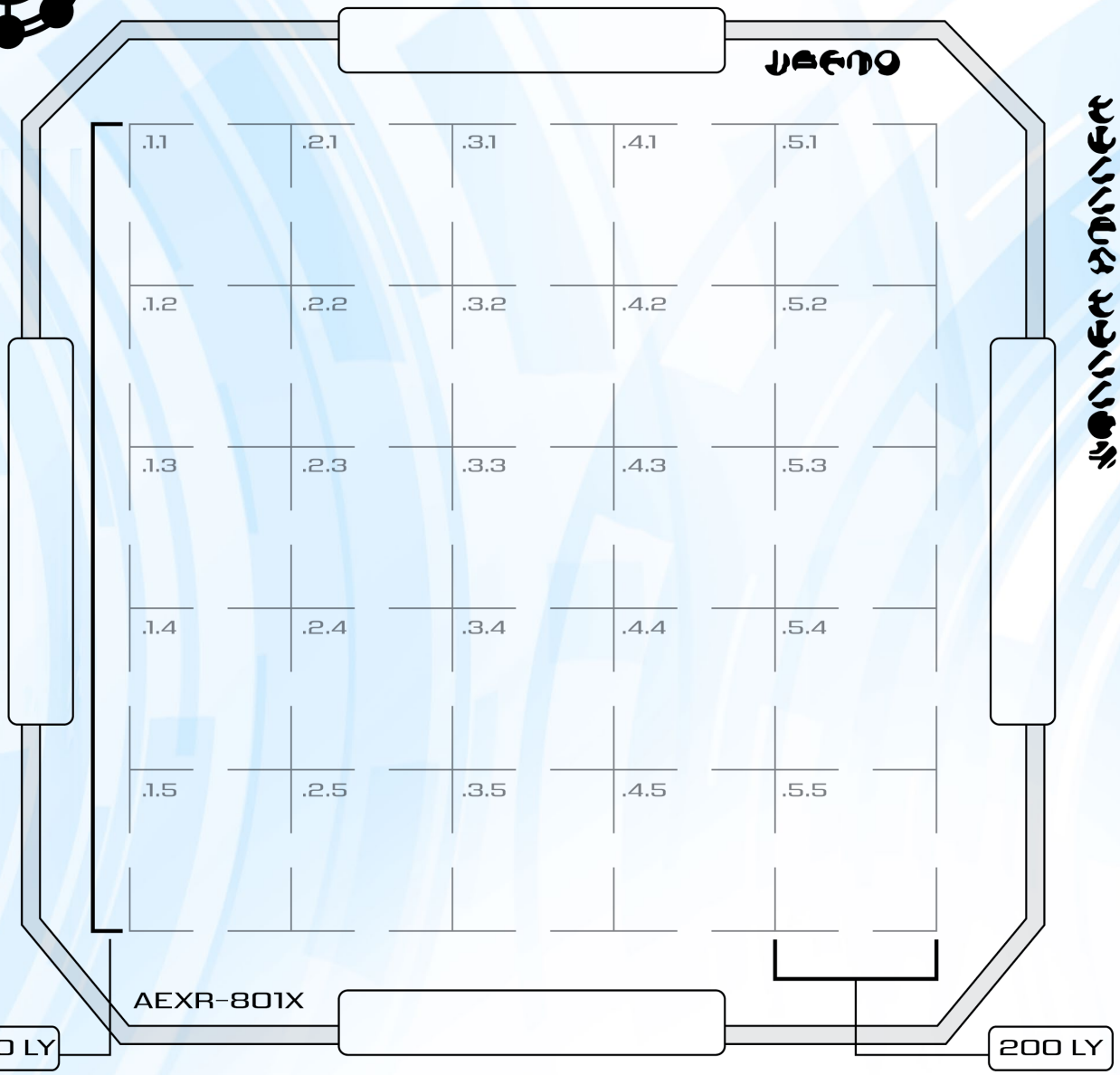
GALACTIC PLANE NORTH

NCE Sector Schematic 267/102.4 x-y projection.
Issued Titania Space Force ordinanace
14/e/r-Alpha, TItan Lagrange-2
Also available in holo and Virtuality

TRANSECT



- ○ PRIMARY
- ○ SECONDARY
- ○ TERTIARY
- ○ QUATERNARY
- ○ QUINARY



KEY

- ● STAR SYSTEM
- ◉ QUARANTINE
- ◉ EMBARGO
- ⬢ DEPOT
- ✦ OCTANT CAPITAL
- ✦ SUBSECTOR CAPITAL
- ✸ SECTOR CAPITAL
- ◎ FAR GATE
- ▒ DUST CLOUD
- ▒ NEBULA
- ■ RIFT
- +50 to – 50 Z COORDINATE
- ▬ MINDJAMMER ROUTE
- ┈┈ EXTRA-TRANSECT ROUTE
- ▪ ▪ ▪ ▪ BORDER (POLITICAL)

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The following is a glossary of the core essential terms for the Mindjammer setting. An exhaustive and updated version can be found at *www.mindjammerpress.com/x-memcore*

AU, Astronomical Unit: *The distance between Old Earth and Sol, approximately 150 million km (93 million miles), commonly used as a unit of distance within star systems.*

autotroph: *Hominid genurgically modified to produce its own food.*

avatar: *A remote controlled usually humanoid physical body used by installation sentiences.*

basic: *A simple artificial intelligence governing basic equipment.*

bioship: *A genurgically engineered semi-organic planeship bred by Chembu Genurgy.*

black chip: *Mindscape implant with the "safeties" illegally deactivated. See Special Ops Chip.*

brainjack: *Human Venu starship pilot used instead of ship sentiences. Usually psychotic.*

Chembu: *Hominid species evolved through contact with the Planetary Intelligence. Genurgy specialists.*

chronodisplacement: *Mental shock caused when local Mindscape is out-of-date with your own memories.*

Commonality, The: *Advanced interstellar transhuman polity centred on Old Earth.*

Commonality Space: *Volume of space roughly 3000 light years across, centred on Old Earth.*

corpus: *Synthetic brain at the heart of an installation sentience.*

CORESEC: *Ruthless security and enforcement arm of the Core Worlds Pansectorate.*

CORESPAN: *The Core Worlds Pansectorate. Intimidating and oppressive administrative network of the Core Worlds.*

Core Worlds: *Volume of Commonality Space immediately around Old Earth which formed the slower-than-light First Commonality.*

corporacy: *Commonality-wide megacorporation with more power than most governments.*

Culture World: *Cultural "strong point" created by the Commonality to resist cultural conflict.*

Custodian: *One of the mysterious rulers of the Commonality.*

direct perception feed: *Process by which Commonality citizens upload continuous sensory data to the Mindscape.*

dirt drive: *Dangerously unstable version of the planing engine reverse-engineered by the Venu.*

Dirty Mary: *Highly radioactive Venu disruptor cannon reverse-engineered from Commonality tech.*

discretionary interface, DI: *The ability of Mindscape participants to switch between a variety of Mindscape interfaces on the fly and at will.*

drone: *A servitor remote providing expert skill systems; usually a basic.*

EECU, aka Expansionary Era Credit Unit: *AKA "money", unsophisticated exchange medium reinvented to cope with primitive conditions on the Commonality Fringe.*

effector, aka finger field, fiddler: *Energy field manipulator used for "techno-telekinesis".*

eidolon: *Synthetic sentience with a personality derived from one or more thanograms.*

Eidolon Compliances, The: *Functional requirements for creation of a stable eidolon.*

eidolon crisis: *Mental damage suffered by an eidolon personality.*

eidolon rig: *Physical and virtual equipment required for eidolon creation.*

embargo, The: *Measure by which the Commonality prevents hypertech from falling into the hands of cultures unprepared for its use.*

emulator: *Form of Mindscape sentinel simulating your personality for remote communication.*

Event Horizon Probes, The: *Network of sentient probes exploring star systems beyond the Frontier.*

exomemory: *A memory engram uploaded to the Mindscape.*

Expansion: *Process by which the Commonality has been recontacting lost colony worlds and expanding its territory. See also Rediscovery.*

Expansionary Era: *AKA The Second Age of Space, the New Commonality Era. Period since invention of planing technology when the Commonality has been expanding to recontact lost colony worlds.*

far gate: *AKA 3-space gate. Method of travelling through 3-space.*

Far Gate Project: *Commonality endeavour to establish far gates at all sector capitals. Currently underway.*

fictional: *A Mindscape sentinel or pseudo-eidolon created from an entirely artificial thanogram.*

First Age of Space: *Period of slower-than-light colonisation by the Commonality beginning appx 10,000 years ago.*

Fringe, The: *Volume of Commonality Space integrated into the expanding Commonality since Rediscovery.*

Fringe World: *World outside the Core Worlds. May be a rediscovered or lost colony world, or a new Commonality world.*

Frontier, The: *Current extent of Expansion. The Frontier is being pushed outwards every year.*

genotype divergence: *The amount by which a xenomorph diverges from its source animal stock towards the human.*

genurgy: *Programmed manipulation of the human genome and associated biomatrices to customise and enhance natural abilities.*

gestalt controller: *Individual responsible for the creation and manipulation of gestalt language.*

gestalt language: *Language of incrementally powerful and effective hyperwords and similar utterances; posthuman form of language.*

gravity engines: *Principle slower-than-light star drives used by the Commonality.*

Great Diaspora: *5000 year period beginning 10000 years ago when the Commonality sent out most of its slower-than-light colony expeditions.*

halo: *Virtual assembly of an individual's enhancements powered by the Mindscape.*

handshaking: *Process of establishing direct Mindscape contact between individuals.*

haze field: *Low-powered force field. Personal and construct versions exist.*

heliopause: *AKA n/2 boundary. Edge of a star system where it's safe to engage planing engines; closest safe point of emergence from 2-space.*

hominid: *Divergent genotype derived from human stock. Many rediscovered and lost colony inhabitants are hominids.*

Human Space: *Theoretical volume of space reached by humankind during the First Age of Space; a flattened sphere some 20,000 light years in diameter, centred on Old Earth.*

imposality: *Virtuality in which DI is disengaged and the environment entirely controlled by the creator.*

Installation: *Large-scale synthetic sentience, usually in a construct such as a starship, building, metroplex, city, etc.*

instrumentality: *Administrative bodies constituting the executive branch of the Commonality government. Includes SCI Force, Space Force, the Armed Forces Instrumentality, etc.*

ISI: *Internal Security Instrumentality; the Commonality police.*

jump maximum: *Maximum cumulative distance a planeship can travel through 2-space before requiring overhaul.*

jump point: *Point at which it's safe to enter 2-space. Usually the heliopause.*

lost colony: *World settled by humankind during the Great Diaspora.*

makepoint: *Mass-energy converter capable of synthesising food, elements, air, etc.*

Manhome: *Solar system of Old Earth.*

mechanical: *Predominantly inorganic synthetic of roughly human scale.*

mediator: *Starship sentience specialising in coordinating fleet actions.*

memetic engineer: *Individual spe-*

cialising in cultural manipulation.

memoplex, aka servitor gestalt: *Exomemory aggregation providing common experiential background to specialist group.*

mindburn: *Mental attack using the Mindscape implant.*

Mindjammer: *Planeship dedicated to updating the Mindscape throughout the Commonality.*

mindlink: *Override of five primary senses by the Mindscape implant, allowing user to fully experience a virtuality or direct perception feed. A form of DI.*

Mindscape: *Virtual information storage and communications medium linking all Commonality citizens.*

Mindscape implant: *Genurgic enhancement allowing an individual to neurally interface with the Mindscape.*

Mindscape instance: *Device containing a discrete instance / copy of the Mindscape, connected to via Mindscape implant. May be updated by Mindjammer; often portable.*

monitor band: *Carrier signal emitted by Mindscape implants.*

monitor band cloak: *Portable / wearable device suppressing the monitor band.*

nanocells: *Direct physical interface to equipment usually controlled by Mindscape.*

neo-culture: *Artificial culture world sponsored and created by the Commonality.*

New Trader: *Individual engaging in trade and commerce of dubious legality on the Fringe.*

node: *Major Mindscape instance, usually orbital or global.*

n-space: *Normal space, travelled through using gravity engines.*

n/2 boundary: *AKA jump point; distance from star at which it's safe to enter or exit 2-space. Usually the heliopause.*

organic: *Strictly speaking a synthetic intelligence comprising mostly organic components; loosely, any organic life form.*

Outer World: *World currently beyond the Commonality Frontier.*

Pansectorate: *Sector-level Commonality government comprising multiple ministries.*

Planetary Intelligence: *Transcendent alien intelligence emerging from the biosphere of the planet Chembu. The largest known sentient organism.*

planeship: *Starship capable of travelling through 2-space.*

planing: *Faster-than-light travel in 2-space.*

planing engines: *Starship drive capable of travelling through 2-space.*

Predecessors: *Mysterious alien species extant in Commonality Space c. 1 million years ago. Their fate is unknown.*

privacy field: *DI-related Mindscape lock which makes an individual uncontactable by Mindscape. It doesn't cloak the monitor band.*

psionics: *Natural field and quantum manipulation and communication abilities evinced by rare exofauna. Humankind appears incapable of psionics, even with genurgy.*

Pulse Dragon Phenomenon: *Mysterious phenomenon causing destruction of any planeship dropping out of 2-space directly into the interstellar medium.*

quarantine: *Extreme form of the Commonality embargo, in which access to and from a world is forbidden or tightly controlled.*

Quarantine Zone, aka Q-Zone: *No Man's Land between Commonality Space and the Venu Empire.*

redaction: *Advanced mental trauma therapy using the Mindscape implant to directly modify an individual's memories and psychic configuration.*

rediscovered world: *Lost colony which has been recontacted by the Commonality.*

Rediscovery: *Process of recontacting lost colony worlds and integrating them into the Commonality civilisation.*

SCI Force: *Security and Cultural Integrity Instrumentality; part of Commonality government tasked with defending against culture conflict and contamination.*

Second Age of Space: *200-year period of modern interstellar era dating from the beginning of Expansion.*

sensorview: *Using DI and Mindscape perception to view the actual world environment.*

sentinel: *Mindscape security routine protecting against intrusion, etc.*

skill chip: *Mindscape enhancement augmenting an individual's skills.*

slowboat: *aka slowship; a starship without planing engines travelling slower-than-light.*

special operations chip: *Modified Mindscape implant with the "safeties" taken off.*

star city: *Extremely large space vessel travelling faster- or slower-than-light, often operated by Javawayn Industries.*

starship therapy: *Targeted form of redaction treating damaged starship sentiences.*

stasis boat: *Starship life boat placing crewmembers in protective stasis.*

suspension matrix: *Virtual disguise masking identity in the Mindscape.*

synthetic: *Artificial life form; see also installation, mechanical, organic.*

tachyon distortion field, aka 2-space field: *Protective torus which lifts a planeship from n-space into 2-space.*

technopsi: *Pseudo-psionic effects achievable via the Mindscape implant.*

technurgy: *Creation of virtual devices in the Mindscape.*

Temple of Universal Mind: *Basic Mindscape instance tailored for minimal culture shock on primitive rediscovered worlds.*

Ten Thousand Worlds, The: *Epithet for Commonality Space; in reality there are many more than 10,000 worlds.*

thanogram: *Aggregation of exomemories thoughtcast by an individual, usually upon dying.*

thanogram thoughtcast: *Process of thoughtcasting a thanogram to the Mindscape.*

thoughtcast: *Process of uploading internally verbalised communications or memory engrams via Mindscape implant into the Mindscape.*

3-space: *Other-dimensional phenomenon permitting extremely rapid interstellar travel, covering 1 light year per 30 seconds, between fixed points at 3-space "far gates".*

tightbeam: *Direct non-Mindscape communication using maser or other coherent beams; usually requires line of sight and limited by range.*

2-space: *Other-dimensional phenomenon allowing the warping of n-space to achieve faster-than-light speeds of approximately 3 light years per standard day.*

Universal: *AKA Unilingua or Galingua; language spoken by most citizens of the Commonality. Includes hyperlinguistic gestalt communication forms.*

variform: *Capability of a genurgic or mechanical enhancement to dynamically reconfigure its physical form.*

Venu, The: *Human lost colony culture from the Orion cluster, deeply inimical to the Commonality.*

virtuality: *Virtual Mindscape space; may be accessed by mindlink or other forms of DI.*

virtual vision: *Form of DI, enabling the Mindscape to be viewed as an "HUD overlay" over the user's normal visual field.*

xenomorph: *Group of sentient species derived from uplifted terrestrial animals, initially for cheap labour. There are many xenomorph species, some more human-looking than others.*

zanthrium: *Rare heavy transuranic element vital for the functioning of ZIP cells and planing engines.*

ZIP cell: *Zero-point energy cell, providing near-limitless power to equipment.*

ZIP plant: *Power plant for a large-scale construct such as a starship, space station, or city.*

z-radiation: *Radiation emitted by the torsion field in a ZIP cell; highly damaging to organic cells.*

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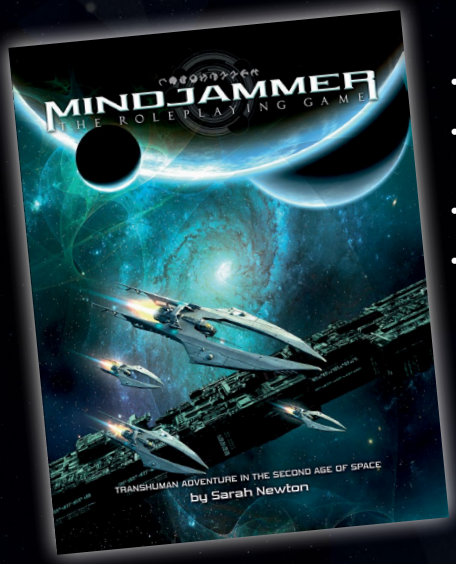

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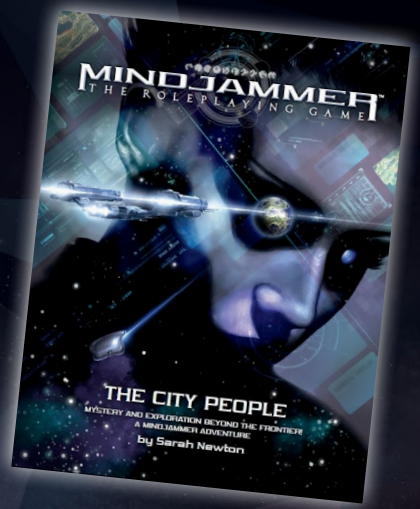

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