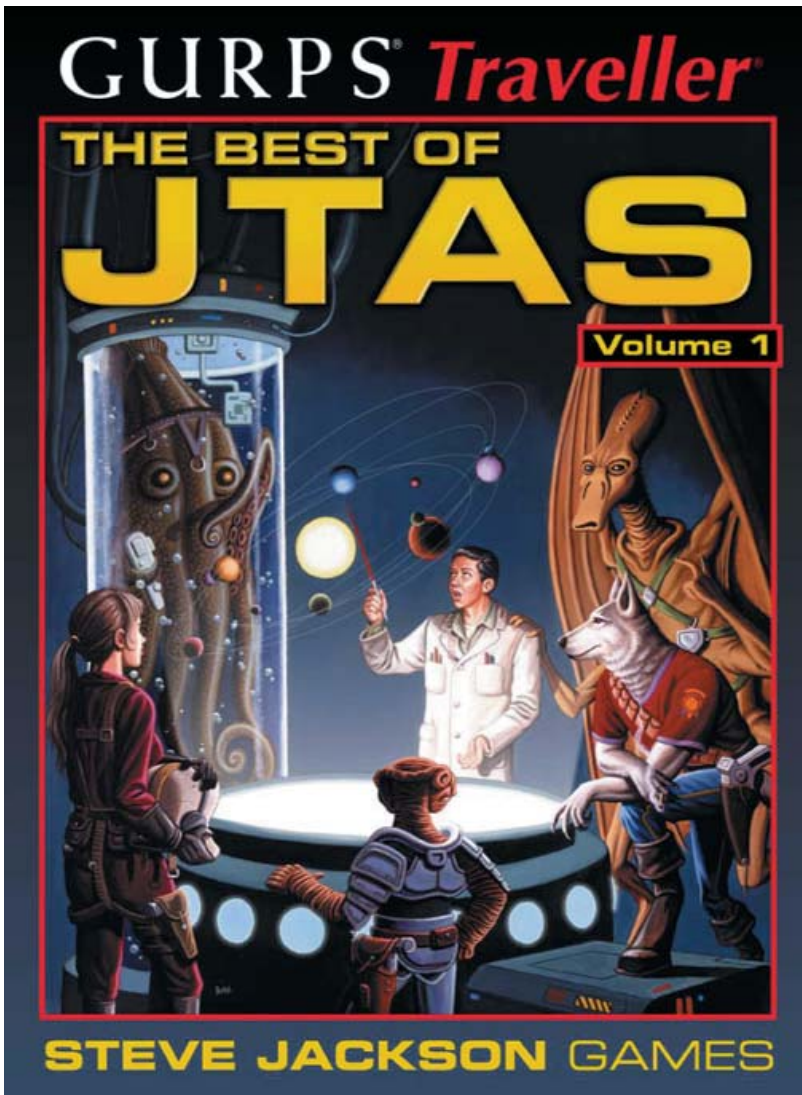


GURPS®



The Journal's Finest!

For over 20 years, the *Journal of the Travellers' Aid Society* has been the voice of *Traveller* and its fans. In February of 2000, Steve Jackson Games revived *JTAS* as an online magazine.

This book collects in one volume the very best articles published online in the year 2000, as picked by *JTAS* editor Loren Wiseman. There's material for *GURPS Traveller*, of course, but many articles can be used in any *Traveller* campaign – or any other science-fiction setting, for that matter.

GURPS, Warehouse 23, and the all-seeing pyramid are registered trademarks of Steve Jackson Games Incorporated. *Pyramid*, *GURPS Traveller: The Best of JTAS, Volume 1*, and the names of all products published by Steve Jackson Games Incorporated are registered trademarks or trademarks of Steve Jackson Games Incorporated, or used under license. Some art copyright © 2004 www.clipart.com. All rights reserved. *GURPS Traveller: The Best of JTAS, Volume 1* is copyright © 2000, 2004 by Steve Jackson Games Incorporated.

The scanning, uploading, and distribution of this material via the Internet or via any other means without the permission of the publisher is illegal, and punishable by law. Please purchase only authorized electronic editions, and do not participate in or encourage the electronic piracy of copyrighted materials. Your support of the authors' rights is appreciated.



STEVE JACKSON GAMES

e23.sjgames.com

Traveller[®]

The Best of JTAS



Volume 1

Accounts of the Imperium and Beyond

Compiled and Edited by

ALAIN H. DAWSON, MONICA STEPHENS, AND LOREN WISEMAN

Written by **ANDREW AKINS, KURT BROWN, BRANDON COPE, MIKE DARKE, MARTIN J. DOUGHERTY, NEIL FRIER, ALLAN E. JOHNSON, IAN MACKINDER, JAMES MALISZEWSKI, ROBERT PRIOR, HANS RANCKE-MADSEN, MATT STEVENS, DAVID THOMAS, AND CHRISTOPHER THRASH**

Based on the award-winning Traveller science fiction universe by **MARC MILLER**

Illustrated by **LEANNE BUCKLEY, JESSE DEGRAFF, AND GARY MCKEE**

Maps and Graphics by **ANDY AKINS, ALLAN E. JOHNSON, ROBERT PRIOR, AND CHRISTOPHER THRASH**

Cover by **DAVID DAY**

GURPS System Design ■ **STEVE JACKSON**
Managing Editor ■ **ANDREW HACKARD**
GURPS Traveller Line Editor ■ **LOREN K. WISEMAN**
Errata Coordinator ■ **ANDY VETROMILE**
Production Manager ■ **MONIQUE CHAPMAN**
Page Design ■ **JACK ELMY**
Production Artist ■ **GENE SEABOLT**
Art Director ■ **PHILIP REED**
Print Buyer ■ **MONICA STEPHENS**
Sales Manager ■ **ROSS JEPSON**

Experience the Journal of the Traveller's Aid Society at:

JTAS.SJGAMES.COM

GURPS, Warehouse 23, and the all-seeing pyramid are registered trademarks of Steve Jackson Games Incorporated. *The Best of JTAS, Volume 1, Pyramid*, and the names of all products published by Steve Jackson Games Incorporated are registered trademarks or trademarks of Steve Jackson Games Incorporated, or used under license. *Traveller The Best of JTAS, Volume 1* is copyright © 2004 by Steve Jackson Games Incorporated. All rights reserved. Printed in the USA. *Traveller* is a registered trademark of Far Future Enterprises, and is used under license.

ISBN 1-55634-568-2

1 2 3 4 5 6 7 8 9 10

STEVE JACKSON GAMES

Contents



INTRODUCTION 3

1. ADVENTURES AND SETTINGS 4

SIX ENIGMAS 4
Six adventure scenarios, each with six possible variations, for GMs in need of ideas. By James Maliszewski.

ECHISTE 8
An aquatic paradise in the Spinward Marches. By Robert Prior.

ERV – LIFE IN THE SPACE LANES 14
Adventure seeds for an emergency response team aboard the *Blakeway*-class Emergency Response Vehicle *Baker* operating out of Mora highport. By Kurt Brown.

THE REPUBLIC OF GAROO 16
A campaign setting in the Darrian sector of the Spinward Marches. Intrigue and rebellion create a challenging backdrop for adventure. By Martin J. Dougherty and Neil Frier.

PENELOPE 20
Kurt Brown details a dusty little world where the miners fight to keep their rights.

2. BACKGROUND 24

THE RULE OF MAN 24
Kurt Brown and James Maliszewski examine the Rule of Man period, collating existing information on this undeveloped time in *Traveller* history and adding ideas for campaigns and adventures.

THE HAUNTED IMPERIUM 30
Kurt Brown records several ghostly legends, from the Imperial Palace to the cold reaches of space.

THE SACNOTH DOMINATE 34
A historical campaign background for all Traveller variants set in the Sword Worlds in the days before there was an Imperium. By Hans Rancke-Madsen.

SWORD WORLDERS 40

The history, culture, and motivations of the aggressive Sword Worlders, as related by Robert Prior.

MAZJARU 40

The Mazjaru are the best known K'kree subject race. The K'kree consider them to be the perfect slaves, but as Robert Prior explains, there's a lot going on behind the Masters' backs.

3. GOVERNMENTS 51

CHARISMATIC GOVERNMENTS 51
Why "Charismatic Dictator" does not mean a guy who gained power by rolling 18 on 3d6. First in a series, by Matt Stevens.

EMPIRES OF THE PAPER-PUSHERS: BUREAUCRATIC GOVERNMENTS 55
Matt Stevens continues his comparative governments seminar with a look at bureaucrats.

THE PEOPLE, YES: DEMOCRATIC GOVERNMENTS 59
Third in Matt Stevens' series on governments: government by the people, of the people, for the people, and *to* the people.

SHATTERED WORLDS: BALKANIZED GOVERNMENTS 63
Countries armed to the teeth, soldiers glaring at each other through barbed wire, wars about to break out at any moment . . . Matt Stevens examines worlds with multiple governments.

DEFENDERS OF THE FAITH: RELIGIOUS DICTATORSHIPS 68
Fifth and last in the series, Matt Stevens enters the holy sanctum of religious dictatorships to throw some light on the subject.

4. TECHNOLOGY 73

CORTEZ-CLASS SALVAGE SHIP 73
A salvage ship and a discussion of salvage procedures by Brandon Cope.



DESIGNING DECK PLANS 76

Some advice on deck-plan creation by Andy Akins, who has done a few.

NAVAL ARCHITECTURE FOR *GURPS TRAVELLER* 80

A discussion of naval design philosophy by Christopher Thrash, to compliment and extend the modular design system in *GURPS Traveller*.

5. VARIANTS 97

THE IMPERIUM STRIKES BACK 97
James Maliszewski examines the possibilities of an evil Imperium. Cue the John Williams soundtrack . . .

ACROSS THE GALAXY 101
Allan E. Johnson explores what might happen if ships could make kiloparsec jumps: Galactic empires? Hidden civilizations? It's up to the GM to decide.

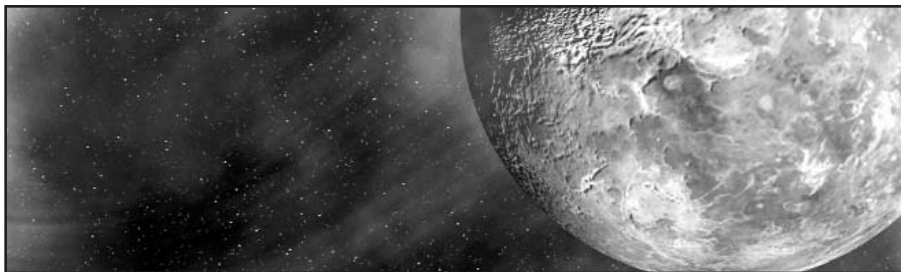
THE *TRUE SECRET* OF THE ANCIENTS 107
You didn't *really* believe that stuff about Grandfather, did you? Hans Rancke-Madsen sets the record straight.

TRAVELLER 3D: MAPPING THE SOLID SUBSECTOR USING *CHVIEW* 111
For those who are tired of a two-dimensional campaign, Christopher Thrash explains how to create 3D star maps.

JUMPING TO CONCLUSIONS 124
Mike Darke discusses a few possible consequences of jump travel you might not have considered.

THE WANDJINA THEORY 126
By Ian Mackinder. Everything you know is wrong. Maybe . . .

INDEX 128



Introduction

ABOUT GURPS

Steve Jackson Games is committed to full support of the **GURPS** system. Our address is SJ Games, Box 18957, Austin, TX 78760. Please include a self-addressed, stamped envelope (SASE) any time you write us! Resources include:

Pyramid (www.sjgames.com/pyramid/). Our online magazine includes new **GURPS** rules and articles. It also covers *Dungeons and Dragons*, *Traveller*, *World of Darkness*, *Call of Cthulhu*, and many more top games – and other Steve Jackson Games releases like *In Nomine*, *INWO*, *Car Wars*, *Toon*, *Ogre Miniatures*, and more. *Pyramid* subscribers also have access to playtest files online!

New supplements and adventures. **GURPS** continues to grow, and we'll be happy to let you know what's new. For a current catalog, send us a legal-sized or 9"×12" SASE – please use two stamps! – or just visit www.warehouse23.com.

Errata. Everyone makes mistakes, including us – but we do our best to fix our errors. Up-to-date errata sheets for all **GURPS** releases, including this book, are available on our website – see below.

Gamer input. We value your comments, for new products as well as updated printings of existing titles!

Internet. Visit us on the World Wide Web at www.sjgames.com for errata, updates, Q&A, and much more. **GURPS** has its own Usenet group, too: rec.games.frp.gurps.

GURPSnet. This e-mail list hosts much of the online discussion of **GURPS**. To join, point your web browser to www.sjgames.com/mailman/listinfo/gurpsnet-l/.

Page References

Rules and statistics in this book are specifically for the **GURPS Basic Set, Third Edition**. Any page reference that begins with a B refers to the **GURPS Basic Set** – e.g., p. B102 means p. 102 of the **GURPS Basic Set, Third Edition**. Other page references are GT for **GURPS Traveller**, S for **GURPS Space**, VE for **GURPS Vehicles**, T:AI for **GURPS Traveller: Alien Races 1**, T:BC for **GURPS Traveller: Behind the Claw**, T:FI for **GURPS Traveller: First In**, T:FT for **GURPS Traveller: Far Trader**, and T:SM for **GURPS Traveller: Star Mercs**. The abbreviation for this book is T:Ji.

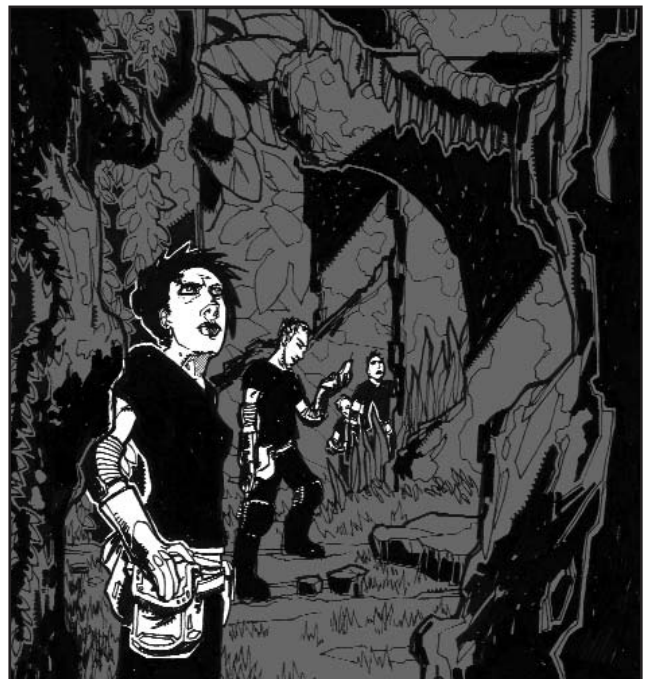
For a full list of **GURPS** abbreviations, see p. CI181 or the updated web list at www.sjgames.com/gurps/abbrevs.html.

This is the first of what we hope will be a continuing series of anthologies collecting the best articles from the new *Journal of the Travellers' Aid Society*. SJ Games began publication of the new *JTAS* in February of 2000, and it has achieved a reputation among the *Traveller* grognards as being well worth the subscription price.

To select the contents of this volume, I took a list of 2000's articles in order of their subscriber rankings and chose from the upper levels of that list those I felt were of enduring interest to *Traveller* fans. I decided not to include any of my own editorials – those are the sort of light extemporanea that will not stand the test of time very well. I think that articles like Allan E. Johnson's *Across the Galaxy*, however, will still be as interesting in 20 years as they are now. We could probably do a second anthology just choosing from the articles published in 2000.

ABOUT THE LINE EDITOR

Loren Wiseman was one of the founding partners of GDW, Inc., original publishers of *Traveller*. He spent more than 20 years there as a game designer, developer, typesetter, and editor. After GDW closed, Loren freelanced, then came to SJ Games, where he is *Traveller* Line Editor and expert-in-residence.



Adventures

Adventures and settings are the meat and potatoes of any game, and *JTAS* provides them in various forms for every taste. The original print *JTAS* published short adventures

called “Amber Zones,” and we have continued that custom, but added a greater variety of scenarios. Pregenerated settings save GMs time and let them get right to the adventure.

Six Enigmas

by James Maliszewski

Published August 1, 2000

The wide-ranging nature of *Traveller* campaigns means the GM often needs short adventures to use at a moment's notice. The following six scenarios each provide an easily adaptable circumstance in which the group encounters something unusual or mysterious. The details of each enigma are purposely sketchy, making their inclusion into an ongoing campaign easier. Likewise, each enigma has several variations, allowing plenty of flexibility.

THE CITY IN THE SANDS

While on a remote world with a small population, the adventurers hear stories about a mysterious “City in the Sands,” located in the middle of the world's largest desert. The locals don't know much about the city, having never braved the harsh conditions of the desert to explore it. According to legend, the city is old, pre-dating Human settlement of the world. Legend says it is well-protected with traps and other devices to prevent outsiders from getting too close. Of course, the city also contains incredible riches (or ancient technology or cultural artifacts – the details change each time the story is retold). The adventurers aren't the first offworlders to express an interest in the city; the locals express the hope that they won't be as foolish as the others, since no one has ever returned from such an expedition alive.

1. The city doesn't exist at all. It's just a tall tale told by the locals, some of whom may even believe the story.

2. As 1, but the locals (many of them, anyway) know the city doesn't exist. They use the story to con offworlders into buying lots of traveling gear and other equipment for the journey into the desert.

3. The “city” does exist, but it's not much of a city. Instead, it's the remains of a series of prefabricated survival structures built using Imperial technology from centuries ago. The structures contain a small number of old Imperial tools and other devices, which are of some value to historians and collectors, but pretty much useless otherwise.

4. The city exists but isn't what the locals think it is. It's a discarded set from a holovideo film made on this world more than 100 years ago. The set has suffered somewhat from exposure to the elements. Even so, an examination of the buildings makes it clear they weren't constructed to last or even to hold occupants; many are just elaborate facades.

5. The city exists. It's a small series of buildings and other structures, some of which hold artifacts and other remains that suggest this world was once inhabited by a non-Human race. The city is a major archaeological find that will take years to properly explore. Its discovery might not make the group rich, but they'll become minor celebrities and gain contacts in the scientific community for their efforts.

6. As 5, except the city is only the surface outpost of a vast underground complex that spans for kilometers beneath the world's surface. There's even evidence suggesting the underground portion of the city is still inhabited, a major – and potentially dangerous – find for the adventurers.

THE DERELICT

While in the far reaches of an inhabited system, the adventurers encounter what looks like a derelict vessel in orbit around a lifeless moon.

The ship doesn't respond to any attempts to communicate and seems to be completely without power or life support. According to salvage regulations, the adventurers have a claim to the hulk – if they can bring it back to a world where they can register that claim. To do that, they'll first have to venture on board.

1. The ship is an abandoned merchant freighter, attacked by pirates years ago and devoid of anything of intrinsic value other than itself. Claiming the vessel is a simple matter of either restarting its maneuver drives (currently without fuel) and piloting it back to an Imperial world, or towing it back. In either case, the group gets claim to the ship and may refurbish it or sell it, as they wish.

2. As 1, except the vessel still contains its cargo, unrefined lanthanum and other industrial metals worth hundreds of thousands of credits. Unfortunately, the corporation to which the vessel belonged will launch a counterclaim against the adventurers when they bring the ship to port, even going so far as to suggest the group is responsible for the crew's death.

3. As 1, except the vessel is a trap set by pirates to lure further ships to their doom. If the team boards the hulk, a pirate vessel will set upon their ship, while any boarding party will eventually encounter vacc-suited corsairs ready to capture them as well.

4. As 2, except the ship was carrying an illegal bio-engineered virus. The crew was killed when one of the containers accidentally broke open and the virus escaped quarantine. While the virus is no longer a danger, knowledge of its existence is enough to make the sponsoring corporation less than pleased with the adventurers. They'll do anything within their power to prevent word of their activities being broadcast throughout the local system.

5. As 1, except the ship is a military vessel lost during a recent conflict. The military will pay good money to the adventurers if they return the vessel intact.

6. The ship is, in fact, an alien vessel from a previously unknown minor race. The ship contains alien corpses and artifacts, which makes it an important find for the scientific community. Unfortunately, there's little to no evidence of what killed the aliens or where they came from. Scientists examining the vessel may be interested in hiring the group for additional forays into the outer system to resolve this and related mysteries.

ROGUE PLANET

While visiting a low-population world on the fringes of Imperial space, the local media begin to broadcast reports of a previously uncharted asteroid entering the system. The asteroid isn't on an intercept course with the world, so there is no immediate danger, but its sudden and unexpected appearance is baffling. Because resources are limited, a number of local parties – scientists, corporations, the military – are turning to outsiders for assistance. For a decent fee, they ask anyone with a ship to serve as transport to this unusual phenomenon.

1. The asteroid is simply that, having been thrown into the system millennia ago. It has no odd properties and poses no threat to the local system.

2. As 1, except the asteroid originated in a local asteroid belt and was thrown into its present orbit as the result of a botched mining attempt by an Imperial megacorporation. Tracing the asteroid's course back to its point of origin can easily uncover the megacorp's complicity. Since the asteroid isn't dangerous, there's no wrong-doing on the part of the company, only the embarrassment of having hired substandard miners for its operations.

3. As 1, except the asteroid contains large deposits of valuable ores and crystals. Mining the asteroid will prove quite lucrative – and a source of contention between various groups interested in its riches.

4. The "asteroid" is in fact a cometary body with an extremely long period of revolution around the local sun. The last time it passed this way, there were no Humans on this world. This discovery is of minor scientific interest, bringing the adventurers nothing except the payment originally offered by the group that hired them.

5. As 4, except the comet has a metallic core. The core consists of an ancient alien vessel, abandoned untold millennia ago. The vessel is no longer operational and gives very few clues as to its origin, but its discovery is a significant find for xeno-archaeologists.

6. The asteroid is actually a small generation ship, filled with hibernating aliens from a distant star system. The ship is still operational, on course for another system several parsecs distant. If the group enters the ship, they may be able to awaken the colonists, who (after language barriers have been eliminated) will explain that their own homeworld was destroyed millennia ago. They are the sole survivors of their race, having been selected by lottery to rebuild their civilization on a new world chosen for its similarities to their own.



MISTAKEN IDENTITY

During a stopover on a world to which they've never been, the adventurers receive a package addressed to their starship's docking bay from someone they don't know. When asked about this, the courier claims not to know anything about the sender, only that he's been paid to deliver it to the docking bay. The package contains hardcopies of what look like economic forecasts and other financial information. Soon thereafter, the group finds themselves observed by threatening-looking individuals. These watchers never approach them directly, preferring to observe from a distance. If the adventurers make any moves toward their observers, these individuals will fade into the background and disappear, only to return later.

1. The package was delivered by mistake. It was intended for a financier in the next docking bay. The observers are his agents, who hope to take back the documents without alerting the local law-enforcement authorities. If no opportunity to steal the documents back comes to pass, they'll reluctantly attempt to take them by force.

2. As 1, except the documents were intended for a megacorporate agent. He's on this world in preparation for a hostile takeover of a local corporation and the documents were sent to him by a local hoping to curry favor with the new regime. The observers are agents of a rival megacorp, seeking to do the same thing.

3. As 1, except the package was intended for an Imperial agent. The documents reveal a local corporation's efforts to reorder its assets in preparation for a takeover of the planetary government. While the Imperium will do nothing to stop this, it maintains an interest in what happens on this world in the event things take a turn for the worse. The observers are corporate agents hoping to prevent these details from being revealed.

4. As 3, except the documents were sent to the team on purpose. The corporate employee working with the Imperial agent knew he would be caught, so he sent the documents to the adventurers for safekeeping. In time, the Imperial agent will approach the group to reclaim the documents.

5. The documents were sent on purpose as part of a local political conflict. A planetary leader is hoping to stir up xenophobia by suggesting the world's economy is in the thrall of offworld interests. The adventurers are just convenient patsies in his bid for greater power. The observers are his agents. They won't hurt the adventurers, but will use them and their likenesses to help their employer in his plans.

6. The documents were sent as part of a Hiver's attempt to perform a manipulation. The Hiver is interested in determining to what extent Humans will attempt to uncover the truth, especially when faced with obvious – and enigmatic – danger. If uncovered, the Hiver will congratulate the group and thank them for aiding in his bid to be granted Manipulator status.

ARTIFACT FOR SALE

While walking through an open-air market on a frontier world, the adventurers are accosted by a strange-looking old man. He carries a large trunk, inside of which is an

alien artifact he unearthed in a desolate region of this world – or so he claims. If the adventurers seem interested, he'll open the trunk to reveal a bulky metallic object, covered with strange markings.

The old man offers to sell the artifact to the adventurers for Cr10,000, as he's extremely down on his luck and needs the money. He doesn't know what the artifact does (indeed, if it does anything), but he argues persuasively that it might be worth a great deal to a collector or xeno-archaeologist.

1. The "artifact" is just a piece of junk the old man put together to con offworlders out of their money. It has no value or special abilities whatsoever. If they purchase it, the adventurers will have been duped.

2. As 1, except the old man doesn't know that the artifact is a fake. He sincerely believes it to be valuable, since he unearthed it himself. The true nature of the so-called artifact is left to the GM.

3. As 2, except the artifact is a genuine find. It's not of alien manufacture; it's an old Vilani power conductor, as anyone who can read Old High Vilani will recognize. The artifact has some historical value because it suggests that Vilani explorers visited this world much earlier than previously expected. If the adventurers are lucky in finding the right buyer, they might be able to recoup the money they spent purchasing it from the old man.

4. The artifact is genuine. Its purpose is unknown, but it is alien in origin. Xeno-archaeologists have long suspected this world was once home to a non-Human sophont species, but had thus far found little evidence. The artifact is such proof, worth at least Cr20,000 to researchers interested in this aspect of the world's history.

5. As 4, except the old man stole the artifact from an archaeological team on the world. The team is currently looking for the artifact. If they find the adventurers with it, they may press charges with the authorities, charging them with theft of local antiquities.

6. As 4, except the artifact still works. If taken aboard a vessel, the artifact comes to life in jumpspace with a low hum and a display of brilliant lights. The artifact acts as a "jumpspace compass," which, if properly understood, prevents starships from misjumping farther than 6 parsecs. Properly understanding and utilizing the compass will take time and money. It's also possible that word of the artifact will attract the attention of both Imperial and megacorporate agents, some of whom may wish to seize the artifact for their own purposes.

MYSTERY MAN

The adventurers come across a young man lying unconscious in a dark alley. He has no obvious wounds or signs of trauma and is dressed in undistinguished clothing of offworld manufacture. He has no identification or any other belongings that might provide details about him. When he awakens, he'll thank the adventurers for having helped him, saying he's subject to frequent blackouts. He'll also explain that he's being pursued by a group of men, although he has no idea who they are or why they want him. In fact, he has no idea who he is. Apparently he's suffering from amnesia as well.



The old man offers to sell the artifact to the adventurers for Cr10,000, as he's extremely down on his luck and needs the money. He doesn't know what the artifact does (indeed, if it does anything), but he argues persuasively that it might be worth a great deal to a collector or xeno-archaeologist.

1. The young man has escaped from a local mental institution. While not violent, he has been legally committed to the care of the institution because of his mental illness. The men pursuing him are orderlies from the institution, and local law enforcers. If the man is returned to them, the adventurers will receive thanks for their assistance.

2. As 1, except the young man isn't mentally disturbed in any way. Instead, his younger brother, who hoped to gain control over their mother's corporation after her death, committed him to the institution. The young man will slowly remember these facts, after the drugs administered in the institution wear off. If taken to the authorities, he'll be able to corroborate his story, leading to his brother's ouster and his return home. The young man will reward the adventurers appropriately.

3. As 1, except the young man was committed because he shows latent psionic abilities. Since psionics are both illegal and deemed immoral by the Imperium, the young man's brother committed him to avoid bringing a scandal upon their family. While this may seem cruel, there is little the adventurers can do to change the situation – unless they take the young man offworld and outside Imperial space.

4. The young man is actually a pickpocket and thief, who uses his story to gain the confidence of his prey.

Once his rescuers have accepted him, he will attempt to steal their valuables before disappearing into the night. If contacted, local law-enforcement authorities will express familiarity with the young man and make minimal effort to apprehend him (they have more pressing matters to attend to).

5. As 4, except the young man is a violent sociopath who preys on the charitable. After gaining the adventurers' confidence, he'll choose an opportune moment to attack them. He has no regard for sentient life and will act accordingly. Local authorities will be quite pleased if the adventurers succeed in apprehending him, since he's been at large for several weeks.

6. The young man is actually the failed recipient of a memory overlay procedure – and a Zhodani agent! Instead of acquiring a new personality, as intended, the young man suffered temporary amnesia and escaped from the Zhodani with whom he was working. They're now looking for him before he accidentally reveals their presence. Once he regains his memory, the young man will attempt to leave the adventurers and rejoin his comrades. Should the adventurers discover his true identity and capture him, the local authorities will be quite pleased, rewarding them and according them celebrity status.

Echiste

by Robert Prior

Published April 18, 2000

Echiste is in a binary system, consisting of the K0 V star Rayonne, an unremarkable member of the main sequence (the few scientists who have studied it confirm its lack of anomalies), and Terne, a white-dwarf companion orbiting Rayonne at 154 AU. Terne is too dim to add any appreciable radiation to the Rayonne inner system, so it can be ignored. Six planets form the Rayonne system, but only one (Echiste) falls within the habitable zone. Only Vidure has a moon.

Navigators should note that the 100-diameter limit for Rayonne falls at 0.9 AU, just within the orbit of Geyoins.

Echiste is 0.7 AU from its primary and receives almost as much radiation as Terra. It is a small world of average density, having 1/4 standard mass and 2/3 standard gravity. Although the world has a molten core and tectonic plates, the comparatively low seismic-stress factor means Echiste has little orogenic activity. What activity does exist is confined to the shield volcanoes that form over “hot spots” in the mantle. These volcanic chains create the only dry land on Echiste, a number of island chains.

Little surface soil accumulates on the islands. The rock is hard and, due to the low atmospheric pressure, few plants are adapted to growing on land. An examination of sediments from the vicinity of Genèse has revealed that the shallows have been periodically exposed. Scientists have theorized that these exposures could occur when a volcanic chain reaches one of the poles, permitting the formation of an ice cap and the subsequent lowering of the sea level. Snaking through the ocean are the great *sineuses* – vast trenches formed by tectonic plate subduction. Extreme pressure makes travel in these areas dangerous and little is known of them. Another notable geological feature is the Grande Fosse, a vast uplift caused by the collision of two tectonic plates. Major currents are diverted by the Grande Fosse and the neighboring Grande Sineuse, each of which supports its own unique ecosystem.

ATMOSPHERE

With a surface pressure of only 0.2 atmospheres, the air of Echiste can charitably be described as “sparse.” Compressor masks are needed to breathe the air (but since virtually everyone lives underwater, this is not a serious problem). No definitive explanation has been found for Echiste’s lack of atmosphere, especially when the planet’s relatively high gravity is considered. The most favored theory involves a near-miss by a large cometary body, but the stability of Echiste’s orbit is an anomaly.

HYDROSPHERE

The water that makes up Echiste’s ocean is comparatively fresh. There is little weathering activity (other than the volcanoes) and few salts have dissolved over the millennia. Echistien society is based on an underwater existence.

ECOLOGY

Echistien ecosystems are aquatic, with a broad distinction drawn between surface ecosystems and those of the deeps. Surface ecosystems are subdivided into fixed and mobile. Both rely on sunlight for their energy. Fixed ecosystems obtain their mineral from bottom-dwelling plants. Mobile ecosystems are based on floating mats of plant life, such as the *champs dorée*, which extract minerals from the water. Even the land-based communities rely on the ocean for reproduction. Deep ecosystems are mainly scavengers, relying in the steady supply of food drifting down from above. Warm spots in the *sineuses* form oases of life in the generally barren sea floor.

PLANTS

Virtually all plants on Echiste are aquatic – the volcanic islands are too few to support a broad land-based ecology. Some genera have adapted to an amphibious existence, but all are capable of surviving underwater. Botanists believe that all amphibious plants are descended from dry-land plants that evolved during the last ice age.

The *crépuscule* is a small plankton analog that lives near the surface. A red-colored chemical acts as a chlorophyll analog, hence its name. *Crépuscule* refers to a whole genera of these organisms, distinguishable only under a microscope.

The *aube* is a microorganism closely related to the *crépuscule*. It can be distinguished by its softer colors.

The *grimpante* is one of the few amphibious plants. A large rubbery stem grows horizontally along the ground, anchored periodically by strong roots. At intervals, fronds branch upward from the stem, reaching a height of 5 feet (1.5 meters). Overland travel on most islands is extremely difficult because of the dense growth of *grimpante*.

The term *rampante* refers to a number of species of bottom-growing plants (much like Terran grass). They thrive in strong sunlight, and cover the bottom within about 9 feet (3 meters) of the surface.

Églantine grows only in the shallows. It roots on the bottom, sending long fronds floating toward the surface. It thrives in deeper water than the *rampante*.

The *ronces* is a semi-mobile plant. After sprouting, it is free-floating. When nearing maturity, it grows long tendrils and eventually takes root in a sheltered spot. After seeding, the parent plant dies and breaks free, and the seedlings begin the cycle anew.

SYSTEM SUMMARY

Morceau: 0.2 AU

Vidure: 0.4 AU

Echiste: 0.7 AU

Geyoins: 1.0 AU

Gabeau: 1.6 AU

Risset: 2.8 AU

Terne: 154 AU

The champs dorée is a higher-order plant with broad yellow fronds. It is found growing in vast mats floating on the surface, where it can entangle both swimmers and small vehicles. A mat of champs dorée forms a small ecosystem, providing food and shelter to a bewildering variety of life forms.

ANIMALS

All animals are aquatic. Some can survive on land for a few days, but all must return to the sea for reproduction. Two distinct propulsion systems have evolved on Echiste. One order uses a jet-sac to expel water, moving itself in the other direction in reaction. Advanced members of this order have developed chambered jet-sacs that can produce rapid pulses of water. This system, although efficient for short distances, consumes more energy per mile and is thus limited to relatively stationary species. Free-ranging species typically use flukes or tails to propel themselves.

The poisson-fue is the most notable export of Echiste. These large marine hunters cannot be bred in captivity. Biologists have theorized the existence of a symbiotic relationship with an unidentified species, but no firm data has been uncovered. Poisson-fue is a delicacy on many worlds of the Spinward Main. Quality is often a problem, so live animals fetch premium prices.

The ménée, a small amphibious siren, is one of the few animals on Echiste to be domesticated. In the wild, it attracts prey by both olfactory and sonic lures, which Humans find attractive as well, although not overwhelmingly so. Many Echistien households have a pet ménée.

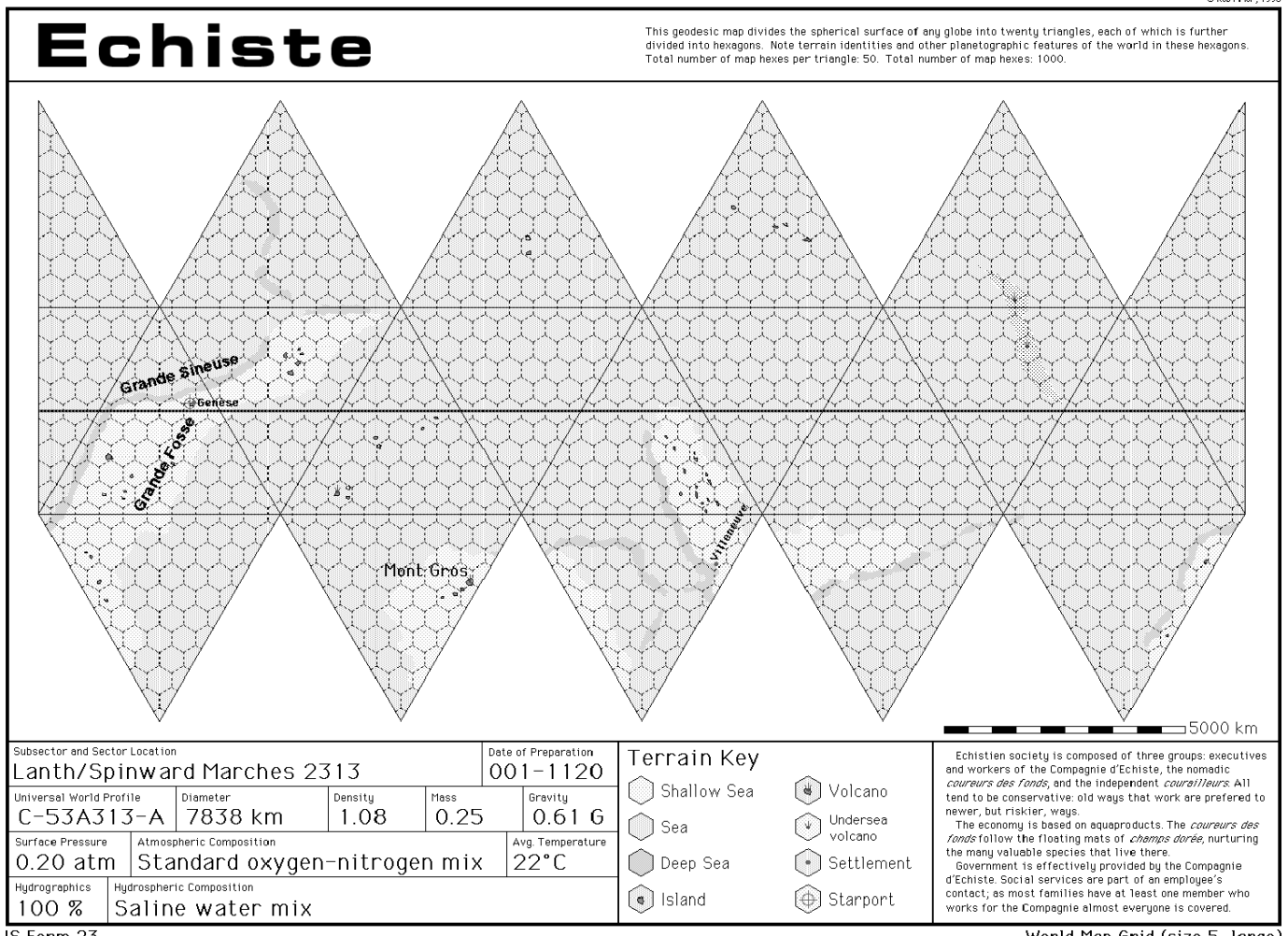
The vermine is a ubiquitous scavenger, rather like the Terran rat. Schools of vermine have been known to attack wounded swimmers without waiting for them to die, but the main danger is economic. The vermine are in direct competition with Humans for Echiste's resources.

The teteux de fonds is a pouncer inhabiting the champs dorée. The anterior portion of the teteux de fonds resembles the fronds of the champs dorée, hence its name. These limbs serve a dual purpose: they provide a disguise and grasp the prey. The teteux hunts by concealing itself within a clump of champs dorée with only its head exposed. When prey draws within range, it contracts its jet-sac and grasps the prey with its limbs.

One of the largest animals on Echiste is the gougeon; specimens have massed over 40 tons. Feeding primarily on champs dorée, they have little to fear from other animals.

The helicon is a gentle grazer, relying on speed to escape its enemies. Helicon have achieved speeds of over 40 km/hour over short distances. When cornered, or during the breeding season, a helicon will defend itself with the sharp spikes on its cranial structure.

© Rob Frow, 1990



IS Form 23

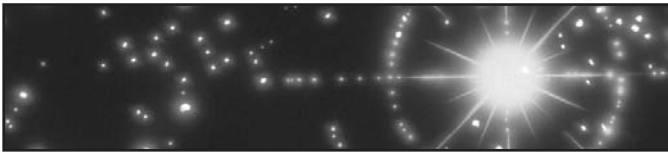
World Map Grid (Size 5, large)

HISTORY

Echiste was settled in the early 800s by employees of the Société d'Echiste, which obtained an Imperial exploitation charter in exchange for colonizing the planet. The Société d'Echiste was founded by Alexandre Dumont, who believed that the poisson-fue, a large submarine hunter, could be sold as a delicacy on Rhylanor. He was right, and the young Société prospered.

To convince people to settle on the fledgling world, Dumont created a mystique of the frontiersman, drawing heavily on the Norwesters of Terran history and picturing them as heroic explorers. The romance of this vision (and a grant of stock) persuaded enough settlers to immigrate that the colony survived.

Early overfishing led to a better understanding of Echiste's complex ecology. Echistiens now nurture and guard their stocks as well as hunt them. A generation later, the Directeurs of the Société decided to expand the world's resource base. A project to mine the rich volcanic ores for metals and minerals from the planet's mantle was begun. This plan was carried out until 881, when the vent of Mont Gros exploded, destroying all the young Société's mining equipment.



SOCIETY

The cultural profile of Echiste contains several misleading items. Students are encouraged to read the following description for more accurate information. The attention of Echiste is focused inward; the average Echistien is too busy surviving to spare much concern for the outside universe. Echistien society is shaped by two forces. The struggle to survive has created a society that is slow to change, as are most cultures that live close to extinction. They tend to stick with old methods of doing things rather than risk newer ones. Most settlement is in the shallows that serve Echiste for continents. These regions, close to the energy of the sun, teem with life.

Echistien society is composed of three groups. The Société executive and the workers at the permanent settlements of Genèse and Villeneuve are the most up-to-date in technology and current affairs. The majority of the population are coureurs des fonds. They are nomadic, living in small *caravanes* that follow the drifting champs dorée. Contact between different caravanes is infrequent, and always a cause for celebration. The couraillieurs are the frontiersmen of Echistien society. Independent, self-reliant, and tough, they roam the deeps in search of poisson-fue or other valuable species. Although they are the folk-heroes of Echistien legend, the couraillieurs are regarded with ambivalence, as their tendency to violence is also legendary. A couraillieur is rarely seen without his étripeur (the underwater version of an assault gun). The Echistiens cultivated the legend of the voyageurs of Terran history and adopted it as their own. Like

uprooted Acadiens, the couraillieurs travel through the seas in search of poisson-fue (instead of through the snows in search of beaver).

ECONOMY

The economy of Echiste is based (of course) on aquatic products. Direct farming has proven impractical; instead, roaming groups of coureur des fonds follow the champs dorée, pruning and nurturing the valuable species that live there.

Imports

Necessities: Manufactured goods, spare parts.

Luxuries: Foodstuffs, clothing.

Echiste has virtually no industrial base, and is unlikely to acquire one in the near future. The population is too low for economical mass-production, and the difficulties of adapting existing equipment to function underwater do not justify the necessary capital investment.

Exports

Large-scale: Processed protein, meats.

Small-scale: Skins and leathers, condiments.

Echiste is noted for the export of high-quality agricultural products. The Société enforces strict quality controls on exports to maintain this reputation.

TECHNOLOGY

Echiste has an average technology level of 9-10.

Three factors stand out from Echiste's Tech Level summary (see p. 13) – robotics, the environment, and personal military equipment. These are functions of Echiste's unique situation. The Société d'Echiste has invested heavily in robotic technology as a means of partially countering the labor shortage. Although these robots are manufactured off-world, workshops at both Genèse and Villeneuve are capable of assembling and repairing TL12 robots. Deep mining has not been attempted since the Mont Gros disaster, but Echiste retains the knowledge. On several occasions, the Société has sold this expertise to other worlds. Few weapons, other than the étripeur, are manufactured on Echiste. However, the lack of legal restrictions on weaponry has resulted in a generally high level of armament.

GOVERNMENT

The inhabitants of Echiste are too busy carving homes in the wilderness (figuratively speaking) to bother with a government. The world is thus effectively run by the Société d'Echiste. This arrangement suits both the Société and the Echistiens. Social services such as schooling and medical attention are provided as part of an employee's benefits. As virtually every family has at least one member in the Société, there is almost universal coverage (something that is prominently covered in recruiting brochures). Société laws and regulations are formulated by several advisory councils chosen by the Board of Directors. Although quite

large, in practice only a dozen or so members are active at any time (usually the retired ones). Employees are represented by occupation; these representatives are well-respected by the Echistiens and their opinions are listened to by the corporate management. Application and enforcement of these regulations is, naturally, carried out by the Société d'Echiste. Not all suggestions from advisory councils are adopted, so the IISS has rated the executive and judicial functions as the main branch of government.

LAW

A glance at Echiste's legal profile (see p. 13) shows several interesting anomalies. These are a result of the Société's position of power. Most travelers will note the lack of weapons restrictions; nothing is illegal here (except nuclear weapons, which are covered under Imperial law). Weapons are viewed as tools by the Société, so ownership and possession are not restricted. But visitors should note that although weapons themselves are not restricted, improper use of them is, and the penalties can be severe.

The Société d'Echiste relies on trade for its survival, so regulations dealing with trade are the most severe. Contracts

and agreements are generally complete and complex, specifying actions, penalties, and refunds applicable under a wide variety of circumstances. Although most trade agreements contain a "good intent" clause, the Société has historically tended to interpret them literally. Visiting merchants are urged to read the fine print. Civil law, as such, does not exist on Echiste; all civil matters are handled by trade agreements. For example, a colonist may agree to trade three years of labor for transport to Echiste, a salary, basic equipment, and certain benefits of residence. Compliance with Société regulations is a part of this agreement, and thus no separate "civil law" is necessary. This has led to some odd cases when one of the few "freelance" Echistiens has been injured by, or has damaged, another individual. These have been settled by mutual agreement; no one, except possibly the lawyers, feels a need for anything more elaborate.

Criminal law does exist, although it is limited to "crimes against individuals." Murder, rape, and assault are all considered crimes and are severely punished by the authorities. More minor crime is handled by the individuals concerned (ganging up on a bully, for example), and episodes of vigilante justice are common in Echiste's history. Personal freedom is nearly absolute. Residents of Echiste are limited more by the environment and the nature of the

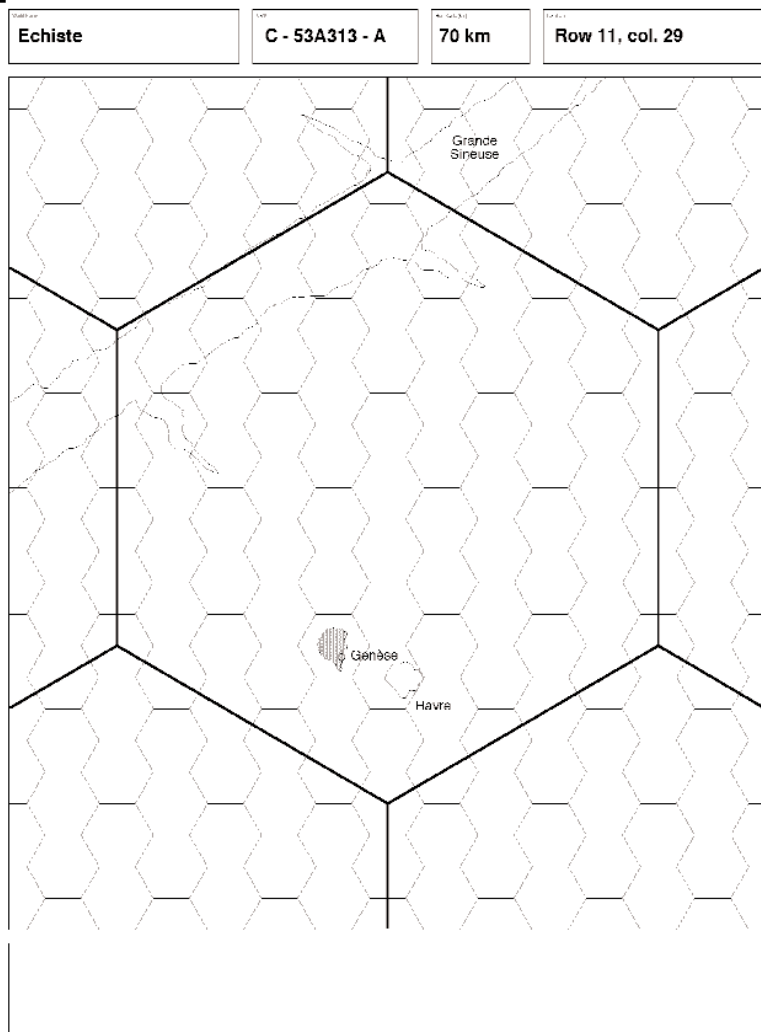
Société d'Echiste's monopoly than they are by any organization. Travelers should be aware that laws are not applied evenly across the population. Employment with the Société d'Echiste grants immunity to certain laws (generally those dealing with export permits).

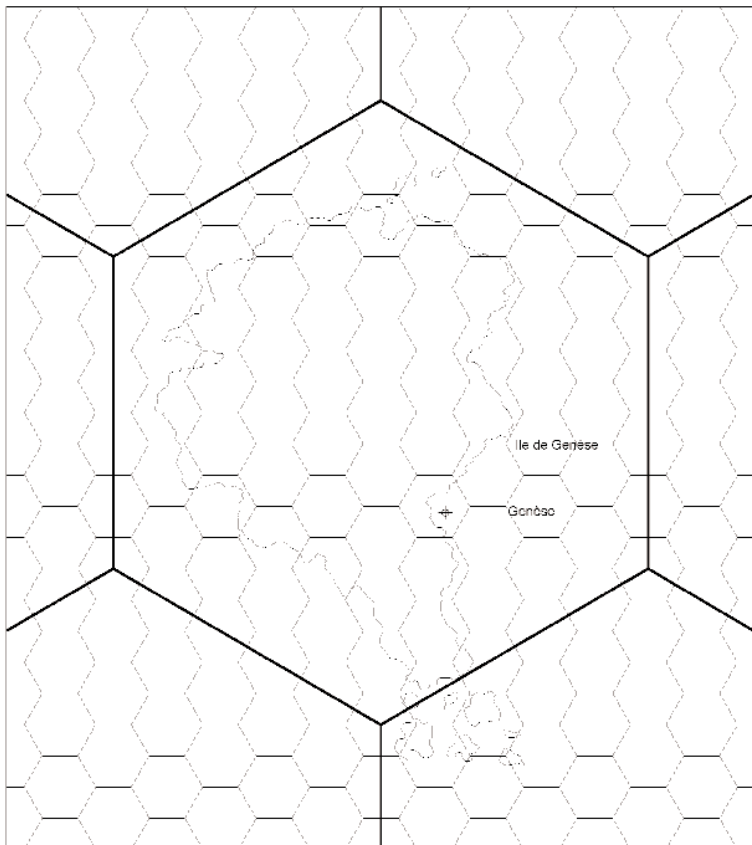
THE REST OF THE SYSTEM

MORCEAU

Morceau is a small world, seldom visited. Only the occasional researcher is interested in getting this close to Rayonne, and there is no other reason to travel to Morceau. Morceau has no moon, and is tidally locked to Rayonne. Morceau has a molten core, which is unusual for such a small world; normally, the heat would have long ago leaked into space. In this case, the lost heat is replenished by tidal heating, caused by the stresses of Morceau's close orbit.

- Orbital Radius:** 0.2 AU
- Orbital Period:** 35 days, 23 hours
- Orbital Velocity:** 1,451 km/s (906 miles/s)
- Orbital Eccentricity:** 0.010
- Axial Tilt:** 15° 58' 19"
- Rotation Period:** 0 hour, 0 min., 0 sec.
- Diameter:** 766 km (479 miles)
- Core Type:** molten
- Density:** 0.86
- Mass:** 0.000184
- Gravity:** 0.504 m/s/s (0.0513 G)





Diameter: 10,895 km (6,809 miles)

Core Type: rock

Density: 0.74

Mass: 0.456

Gravity: 6.18 m/s/s (0.630 G)

GABEAU

Orbital Radius: 1.6 AU

Orbital Period: 2 years, 83 days, 8 hours

Orbital Velocity: 513 km/s (321 miles/s)

Orbital Eccentricity: 0.000

Axial Tilt: 25° 58' 24"

Rotation Period: 20 hour, 25 min., 49 sec.

Diameter: 9,157 km (5,723 miles)

Core Type: rock

Density: 0.64

Mass: 0.234

Gravity: 4.49 m/s/s (0.458 G)

RISSET

Orbital Radius: 2.8 AU

Orbital Period: 5 years, 57 days, 20 hours

Orbital Velocity: 388 km/s (243 miles/s)

Orbital Eccentricity: 0.000

Axial Tilt: 41° 59' 2"

Rotation Period: 20 hour, 25 min., 49 sec.

Diameter: 12,735 km (7,959 miles)

Core Type: molten

Density: 0.96

Mass: 0.945

Seismic Stress: 3

Gravity: 9.37 m/s/s (0.955 G)

VIDURE

Vidure is the only planet in the Rayonne system that possesses a moon: a small asteroid. As this is hardly a tourist attraction, Vidure is almost never visited.

Orbital Radius: 0.4 AU

Orbital Period: 101 days, 17 hours

Orbital Velocity: 1,026 km/s (641 miles/s)

Orbital Eccentricity: 0.000

Axial Tilt: 40° 18' 23"

Rotation Period: 20 hour, 25 min., 49 sec.

Diameter: 7,726 km (4,829 miles)

Core Type: molten

Density: 0.98

Mass: 0.216

Gravity: 5.80 m/s/s (0.592 G)

GEYOINS

Orbital Radius: 1.0 AU

Orbital Period: 1 year, 36 days, 21 hours

Orbital Velocity: 649 km/s (406 miles/s)

Orbital Eccentricity: 0.000

Axial Tilt: 16° 13' 19"

Rotation Period: 20 hour, 25 min., 49 sec.

RAYONNE STELLAR SUMMARY

Spectrum: K0 V

Magnitude: 5.7

Luminosity: 0.42

Temperature: 4,900° K

Mass: 0.825

Radius: 0.908

ECHISTE ORBITAL DATA

Orbital Radius: 0.7 AU

Orbital Period: 235 days, 12 hours

Orbital Velocity: 776 km/s (485 miles/s)

Orbital Eccentricity: 0.000

Axial Tilt: 30° 44' 35"

Rotation Period: 20 hour, 25 min., 49 sec.

ECHISTE GEOLOGICAL DATA

Diameter: 7,838 km (4,899 miles)

Core Type: molten

Density: 1.08

Mass: 0.248

Gravity: 5.99 m/s/s (0.611 G)

ECHISTE HYDROGRAPHIC PRESSURE TABLE

Depth (m)	Pressure (atm)
0	0.20
1	0.27
2	0.33
3	0.40
4	0.46
5	0.53
6	0.60
8	0.73
10	0.86
12	0.99
14	1.13
16	1.26
18	1.39
20	1.52
25	1.85
30	2.18
35	2.51
40	2.84
45	3.17
50	3.51
55	3.84
60	4.17

ECHISTE TECHNOLOGY SUMMARY

High Common: 10
Low Common: 9
Energy: 11
Computer/Robotics: 12
Communications: 11
Medical: 10
Environment: 12
Land Transportation: 10
Water Transportation: 10
Air Transportation: 10
Space Transportation: 11
Personal Military: 12
Heavy Military: 10
Novelty: 12

ECHISTE LAW LEVELS

Overall: 3
Weapons: 0
Trade: 6
Criminal Law: 2
Civil Law: 0
Personal Freedom: 3

ECHISTE ANIMAL ENCOUNTER TABLES

Note: These are for *MegaTraveller* rules.

Surface

Roll	Type	Weight	Wounds	Armor	Weapons	Behavior
2	1d Swimming Intimidators	1,600 kg	16/6	Mesh+1	Teeth (4/0/12)	A7 F2 S1
3	1 Amphibious Gatherer	1,600 kg	13/9	none	Thrasher (8/1/11)	A4 F6 S1
4	1 Swimming Intimidator	6,000 kg	9/5	none	Thrasher (8/1/6)	A6 F2 S2
5	1 Swimming Hunter	50 kg	6/2	none	Claws (3/1/2)	A5 F8 S1
6	1d Swimming Grazers	200 kg	3/3	none	Teeth (4/0/3)	F3 A3 S2
7	1 Swimming Intermittent	3,200 kg	12/10	none	Teeth (4/0/12)	F8 A6 S2
8	2d Swimming Grazers	800 kg	4/6	none	Horns (5/1/3)	F0 A6 S4
9	1 Swimming Killer	25 kg	6/3	Mesh+1	As broadsw. (7/2/3)	A1 F5 S2
10	Event					
11	2d Amphibious Chasers	400 kg	2/6	Jack	As pike (2/1/5)	Am F5 S2
12	1 Swimming Siren	100 kg	6/4	none	Claws (3/1/3)	As F5 S0

Shallows

Roll	Type	Weight	Wounds	Armor	Weapons	Behavior
2	1 Swimming Intimidator	25 kg	3/3	none	Thrasher (8/1/2)	A4 F4 S1
3	1 Amphibious Gatherer	200 kg	10/6	none	Teeth (4/0/3)	A4 F8 S1
4	1 Swimming Intimidator	50 kg	6/3	none	Claws (3/1/2)	A3 F2 S1
5	1 Swimming Hunter	100 kg	2/2	none	Claws (3/1/2)	A6 F7 S1
6	1 Amphibious Intermittent	50 kg	1/4	Jack	Horns (5/1/2)	F5 A7 S2
7	1d Swimming Grazers	36000 kg	14/9	none	Thrasher (8/1/24)	F5 A8 S3
8	1 Amphibious Grazer	1600 kg	16/8	none	Thrasher (8/1/7)	F1 A8 S2
9	1 Amphibious Siren	12 kg	4/2	none	Claws (3/1/3)	As F9 S2
10	Event					
11	1 Swimming Trapper	800 kg	7/4	Jack	Teeth (4/0/5)	As F3 S0
12	1 Swimming Chaser	3200 kg	10/10	none	Teeth (4/0/3)	Am F4 S2

Beach

Roll	Type	Weight	Wounds	Armor	Weapons	Behavior
2	1 Amphibious Hijacker	200 kg	8/5	none	Claws (3/1/3)	A5 F3 S1
3	1 Swimming Gatherer	3,200 kg	7/8	none	Claws (3/1/10)	A7 F6 S1
4	1 Amphibious Reducer	50 kg	2/4	Jack	Teeth (4/0/2)	A4 F6 S1
5	1d Amphibious Eaters	3,200 kg	10/5	none	Teeth (4/0/10)	A1 F7 S1
6	5d Amphibious Grazers	12 kg	6/2	Cloth+1	Horns (5/1/2)	F0 A8 S2
7	3d Amphibious Grazers	50 kg	6/1	none	Claws (3/1/2)	F2 A7 S2
8	3d Amphibious Grazers	200 kg	3/3	none	Horns (5/1/3)	F5 A7 S3
9	1 Amphibious Chaser	25 kg	2/3	Mesh+1	As blade (3/2/2)	Am F5 S2
10	Event					
11	3d Swimming Chasers	800 kg	10/6	Jack	As pike (2/1/9)	Am F7 S3
12	1 Amphibious Killer	400 kg	11/6	none	As blade (3/2/3)	A5 F5 S1

Champs Dorée

Roll	Type	Weight	Wounds	Armor	Weapons	Behavior
2	1d Swimming Intimidators	25 kg	5/3	none	Thrasher (8/1/2)	A4 F4 S1
3	1d Swimming Hunters	6 kg	4/1	none	Teeth (4/0/1)	A2 F3 S2
4	2d Swimming Carrion-Eaters	50 kg	1/6	none	Teeth (4/0/2)	A7 F7 S3
5	1 Amphibious Gatherer	6 kg	2/1	none	Claws (3/1/1)	A6 F6 S3
6	1 Swimming Intermittent	200 kg	4/2	Jack	Teeth (4/0/3)	F5 A6 S1
7	1d Swimming Grazers	50 kg	2/4	Mesh+1	Horns (5/1/2)	F2 A8 S2
8	1d Swimming Filters	200 kg	5/7	Jack	Thrasher (8/1/3)	F3 Ap S0
9	1 Swimming Siren	50 kg	1/4	none	As blade (3/2/2)	As F6 S0
10	Event					
11	1 Swimming Trapper	100 kg	5/2	Jack	Teeth (4/0/3)	As F5 S0
12	1 Swimming Pouncer	400 kg	8/7	none	Teeth (4/0/3)	As Fs S1

ERV - Life in the Space Lanes

by Kurt Brown

Published May 23, 2000

ERV Baker, ERV Baker, this is Mora Control. We have a Code 3 distress call from the independent trader Illoesh. They report serious injuries from an explosion in their engineering spaces, possible capacitor rupture. Proceed to coordinates 243 by 14 by 458, optimum speed.

Mora Control, this is ERV Baker, we copy. ETA 43 minutes.

These seeds assume the adventurers are members of the crew of the *Blakeway*-class Emergency Response Vehicle *Baker* operating out of Mora highport. The immense distances that separate incoming and outgoing starships from the full facilities of the highport make the need for highly trained medical and emergency rescue crews even more urgent. The crews of ERVs must act as surgeons, firefighters, police officers, and counselors – sometimes all at the same time. The group is trained and ready to respond to any situation from births to emergency triage in a time of war. With the huge volume of traffic moving through the Mora system on a daily basis, their days are anything but routine. These are some of their stories.

WELCOME ABOARD

Sometimes in the cramped quarters of an interstellar vessel, tempers run hot. Grudges can become rages, and heated words can lead to violent fights, or worse.

ERV Baker is contacted by Mora Control requesting that they intercept a ship that has not responded to hails for several hours and appears to be adrift. As the *Baker* approaches the 200-ton free trader, they notice flashes of what seem to be gunfire through the windows to the bridge. The *Baker*'s crew are the only authorities nearby. They will need to find a way onto the free trader without decompressing it and killing any survivors. Once they manage to work their way inside, they will discover that one member of the crew appears to have gone berserk and is trying to kill his shipmates. The crew must disarm the crazed gunman, and treat the wounded and dying victims of his attack.

IT BURNS, IT BURNS!

Fire is one of the most dangerous shipboard hazards. Although most ships carry ample fire-suppression systems and compressed-air reserves, even large vessels can fall prey to an uncontrolled fire.

ERV Baker is called in to assist *ERV Tango* in trying to bring a fusion-plant fire under control aboard the IISS *Lewis & Clark*, a *Donosev*-class survey vessel. Most of the non-essential crew have been evacuated to *ERV Tango* and the fire-control crews are struggling to make headway against the white-hot flames. As *ERV Baker* arrives, the flames rupture the *Clark*'s hull, decompressing the engineering spaces and endangering the crew of the *Tango*. The group must try to effect a rescue of their fellow ERV crew before the situation grows more desperate.

BRACE FOR IMPACT!

As one of the largest naval facilities in the Marches, Mora sees a constant, heavy flow of official Naval vessels, ranging from small fleet couriers to the largest battleships. Given such a large volume of traffic, accidents are inevitable.

ERV Baker is the first on the scene of a massive fender-bender – an Imperial Navy fleet tender has been rammed by a light destroyer while on refueling and resupply maneuvers in the outer system. Although neither ship is in immediate danger, their onboard medical facilities have been swamped with injuries ranging from minor contusions to massive internal injuries caused by decompression. The ERVs have been called on to help treat the injured sailors and assist the damage-control parties of both ships in locating survivors in the twisted hulls. To complicate matters, the team receives word that there may be live warheads in the damaged forward section of the destroyer . . .

CORK IN A BOTTLE

There are fortunes to be made among the icy moons and starlit asteroids of the outer system. Sometimes, the lure of easy credits can cloud the judgment of even the most experienced miner.

ERV Baker receives a faint distress call coming from an independent mining vessel in orbit around a small asteroid in the outer system. It is a simple automated distress beacon, so the crew heads to the ship to investigate. On arrival, they find a modified *Seeker*-class mining vessel being held in a station-keeping orbit by the ship's autopilot, but no sign of a crew. Further investigation reveals that the owner of the vessel is trapped on the asteroid below. He has fallen into a crevasse and passed out from lack of oxygen. But, before he lost consciousness, he managed to trigger his ship's distress beacon. The miner has been trapped for several hours and is only minutes from death. Removing him safely from the crevasse will be a challenging task.

MORA, WE HAVE A PROBLEM . . .

Mora is one of the busiest shipping hubs in known space, a crossroads for goods traveling from the Core to the Marches and back again. Sometimes, those cargoes have a mind of their own.

ERV *Baker* is dispatched to help the crew of a 200-ton *Empress Marava*-class freighter solve an unusual problem. Their cargo of small, fast, and extremely vicious Baily's Darters have somehow managed to escape and are running loose throughout the ship. These small, poisonous flyers pose little threat to people in vacc suits or armor, but will prove elusive and potentially dangerous. Darters, known to have a taste for insulation, have already begun to chew on the more easily accessible wires aboard the freighter. The rescuers will be asked to be as gentle as possible since Darters are expensive and highly prized for their ability to keep small pests under control on farms and plantations.

CODE 10

One of the rarer calls that an ERV crew receives is a Code 10, or birth in progress. The crews train to handle every kind of emergency, but a Code 10 is always challenging.

ERV *Baker* receives a Code-10 call to rendezvous with an unusual visitor to the Mora system: an Aslan merchant vessel. The captain of this particular vessel, the leader of the small trading family that owns the ship, happens to be female. She is experiencing a difficult pregnancy and is in considerable pain. Her judgment is clouded, which could pose a threat to the ERV team members if they are not careful. In addition, the ERV team must be careful not to break any taboos regarding Aslan females and childbirth. Any social missteps could provoke an armed incident with the males of the family.

CLOSER TO HOME

ERV crews are trained to deal with emergencies in the depths of space, but sometimes, the emergency is closer than anyone could have imagined.

The crew of ERV *Baker* is preparing to embark on another run to the outer system when they feel a slight shudder run through Mora Highport. At almost the same moment, they receive a General Alert Call. There has been a massive accident in and around docking port 12-Gamma involving a large freighter and its hazardous cargo. The explosion has decompressed a large section of the station. All ERV crews are scrambled to respond to the hundreds of injuries and the massive fires that will be spreading through that section of the highport. ERV *Baker* has been tasked to search the exterior of

the station near the scene of the accident for any survivors, then proceed to a nearby dock and assist with internal issues.

FINDERS, KEEPERS

With the high volume of traffic through the Mora system, sometimes cargo can get – misplaced. When these unclaimed packages are discovered by more than one ship at a time, it can lead to violence.

ERV *Baker* is making a sweep through the trailing Trojan Point of Mora's gas giant when they detect two mining vessels engaged in combat. They are firing on one another with their mining lasers and seem to be maneuvering around a large, modular cargo container. They will warn off ERV *Baker* and continue to attempt to drive one another off. They will not respond to orders to stand down, nor will they give any hint that they have received any additional hails. While it is likely that these ships are smugglers, ERV *Baker* must still try to stop the duel and defuse the situation until a system defense boat arrives.

LOSING CONTROL

Starships contain many advanced and automated systems. While most crews are able to handle any unexpected situation, sometimes they are caught off-guard.

ERV *Baker* is dispatched to intercept a *Beowulf*-class merchantman that appears to be out of control. It is spinning wildly and does not respond to hails. As ERV *Baker* arrives on the scene, they are treated to an unusual sight – the merchant vessel is rotating once every second along its long axis. The ERV crew is unable to raise any of the merchant crew on radio, so they will need to match velocities and attempt a docking maneuver with the out-of-control ship. The ship has suffered a major malfunction of its maneuver drive and anti-gravity systems, leaving the crew pinned to the walls under the massive centrifugal force produced by the rotating ship. The *Baker* will need to dock and attempt to bring the ship under control before rendering aid to the injured crewmen.

ALWAYS ON DUTY

ERV crews grow as close as family during their long months of training and weeks of duty spent together in the cramped confines of their ship. It is only natural that they share some of their off-duty time. But when you're an ERV crewman, you're always on duty.

Team *Baker* is enjoying some relaxation on the surface of Mora by watching one of the monthly high-speed hydrofoil races. The flashing, speedy boats are a big attraction for locals and visitors alike. The larger races can draw thousands of spectators and the more talented drivers can earn hundreds of thousands of credits a year for their victories. As the team enjoys the sun and sand, disaster strikes. One of the hydrofoils clips another as it attempts to pass on the straightaway, sending both boats into a crowded beach. As panicked civilians run from the scene, Team *Baker* springs into action.



The Republic of Garoo

by Martin J. Dougherty and Neil Frier

Published May 16, 2000

INTRODUCTION

The Republic of Garoo is a very minor interstellar power in the Darrian subsector of the Spinward Marches. This article develops the Republic as an adventure setting and details the worlds of the Garoo System for use by GMs.

Full details of the Republic of Garoo and the “Darrian Renaissance” are presented in the sourcebook *Behind the Claw*, but for the GM’s convenience the following facts are presented.

In the wake of the Fifth Frontier War (1107-1110), the Spinward Marches were left in a political mess, with various interstellar powers struggling to take advantage of the situation. One such power was the Darrian Confederation, which retook the Entropic Worlds from the Sword Worlds in 1109 and has since annexed Condaria and Nonym. The Darrians see no glory in conquest but are driven by cold-blooded necessity to establish control over the entire subsector in order to defend their domains.

Most of the independent worlds of the subsector view this “Darrian Renaissance” in a positive light, since the Darrians’ benevolent control of the region offers protection from potential conquerors, such as the barbarous Sword Worlds or the Zhodani Consulate.

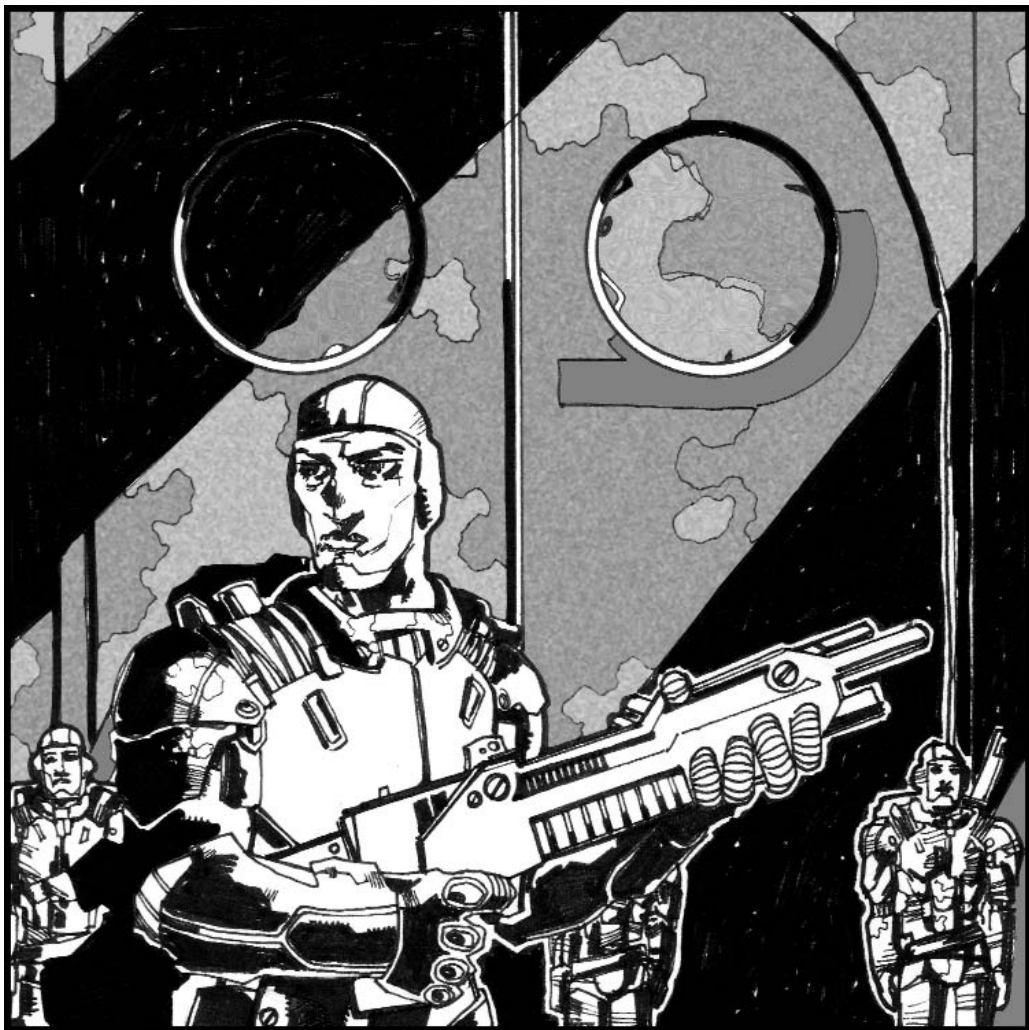
On the world of Garoo, capital of the tiny interstellar Republic of Garoo since 1117, the Darrian expansion is viewed with horror and foreboding. The Republic’s claim to the world of 886-945 (renamed New Garoo) has not been recognized by the Darrians or the Imperium, though the Zhodani Consulate has declared its support.

With a resurgent Darrian Confederation on its border and no firm allies, the Republic of Garoo is walking a tightrope over an abyss.

THE REPUBLIC OF GAROO

The people of Garoo have maintained a democratic government since Solomani colonists settled the world in -1508. Contact with the Third Imperium led to the construction of an excellent starport to serve Imperial traders traveling between the Five Sisters and Reidan subsectors.

The old Garoo Republic was founded in -1482 but did not become an interstellar entity until 806 when a colony was set up on Uniqua with financial support from the Imperial



megacorporation Naasirka and the Imperial Colonial Office. The colony was very unsuccessful; the world's population was confined to a few caverns, operating hydroponics farms simply to sustain themselves. Supporting the colony became such a financial burden that the Old Republic granted the world its freedom in 902. The Imperial Colonial Office remained until 979, when it withdrew its personnel and financial support due to the outbreak of the Third Frontier War.

In 1117, the Republic took action to counter the growing threat from the Darrian Confederation. A war council was appointed to take charge of what became known as the New Republic, made up of representatives of Garoo's six main political parties. Its goal was to ensure that Garoo remained independent. The New Republic's first move was to reclaim Uniqua, a move welcomed by the population of the world. Only Naasirka voiced concern, as it had continued to invest in the world and viewed the New Republic as anti-Imperial in outlook, posing a threat to Naasirka's ownership of the starport and other commercial interests. This situation has not yet been resolved.

In 1119, the New Republic made an overtly expansionist move and claimed the world of 886-945. The annexation met with protests from the Darrian Confederation, followed by a declaration of economic sanctions on 32-1120. All Darrian trade with Garoo was to be cut off until the Republic withdrew from 886-945. Political pressure was also brought to bear on Darrian allies to endorse and comply with the action.

On 207-1120, Archduke Norris declared that the Republic's military action in claiming 886-945 was a destabilizing influence in the region and that Imperial vessels would no longer be allowed to trade with or via Garoo. However, the Archduke did offer to host diplomatic talks at the Karin Naval Base and dispatched Marquis Victor Aledon, cousin to the Archduke and a trusted advisor, to negotiate with the war council.

Naasirka used its power at the Archduke's court to have Naasirka vessels operating to and from their base at Uniqua exempted from the trade prohibition, but still the main threat to the New Republic is economic. Without the revenue from trade through the starport, the Republic is sure to plunge into a downward economic spiral.

The Garoo Question (as it came to be known) took on a new and disturbing tone when a *Shivva*-class patrol frigate of the Zhodani Consular Navy (see p. T:AI47) arrived carrying Ambassador Chipystelr, who offered economic support and technical assistance with the salvage operations at Graveyard (the space sargasso discussed later under *The Garoo System*, p. 19).

THE FUTURE OF THE REPUBLIC

If it comes to a military clash with the Darrian Confederation, the Republic is finished – with one aging Vargr heavy cruiser and a squadron of composite vessels salvaged from Graveyard, the Republican Navy has no chance.

However, if military conflict can be avoided, there is some chance that a diplomatic solution can be found. The

Zhodani are the key to this situation. Supposing the Zhodani captain threatened to block or even fire on any invaders of the system? It would certainly be necessary to return fire, and firing on a Consulate warship is an entirely different matter to destroying the Republican fleet. It could even lead to a Sixth Frontier War.

The question is: would a Zhodani captain really intervene? And would the Consulate go to war over one live-fire incident? Nobody wants to find out, but a dangerous game of brinkmanship is being played, notwithstanding.

There are not likely to be any huge space battles in the near future. Instead, there will be economic and political maneuverings, and covert operations in support of political policy – perhaps the odd starship infiltration and even single-ship actions. Everything that happens in the Republic will affect the political outcome.

Will the Republic remain independent? Be forced too far into the Zhodani camp? Or will some compromise be reached? This is "The Garoo Question."

MILITARY FORCES OF THE REPUBLIC

The Republic has a somewhat unusual military structure, in that they don't follow the usual service distinctions (Navy, Army, etc.). Instead, the Republic has several "Corps" which are assigned vessels and personnel of whatever type are needed from a central pool of trained personnel. Mobility between corps is quite common. All have a standard rank and command structure, and use the same equipment.

The Garoo armed forces, which have been expanded greatly over the past few years, are now larger than the Republic can reasonably afford. Maintenance of the Graveyard ships is a nightmare, and the technical branches are particularly large. The Republic cannot afford these ships and troops, yet the military keeps expanding out of necessity. Sooner or later, the War Council is going to have to slim down, rationalize, or launch an attack on someone.

The armed forces are organized as follows:

The Reconnaissance and Intervention Corps (RIC)

Generally referred to as "the scouts," the members of the RIC are assumed by uninformed Imperial citizens to be equivalent to the IISS. In fact, the RIC is a small special-forces corps whose duties include intelligence gathering, covert operations, and the operation of sensitive outposts. This is the Garoo force most likely to be encountered during adventures. The RIC has six companies of TL9 infantry equipped for the strike role, a maintenance branch, and naval personnel manning a number of starships. In addition, the "Covert Company" is an administrative body to which special agents and covert-ops teams belong.

The RIC operates a 2,000-ton armed transport (on a merchant hull) and two 300-ton covert-infiltration vessels (stealthy scout ships with the ability to land small teams on-planet).

The Salvage Corps

Composed mainly of small-craft crews and technicians, plus security personnel and a single SDB crew. The SDB is built around the hull of a *Broadsword*-class mercenary cruiser, crammed with weapons salvaged from other ships. It is stationed at Graveyard and is not jump-capable. The Salvage Corps protects the Graveyard installation and also supplies security personnel for the shipyards at Garoo.

The Planetary Defense Corps

The Planetary Defense Corps (PDC) operates orbital and ground defense stations, SDBs assigned to the orbital-defense role, and most of the ground troops of the Republic. In addition to the TL9 ground forces, a number of reserve units are being raised for the duration of the crisis. A small contingent of the PDC defends Uniqua, but most of the corps is based at Garoo.

Uniqua is defended by three SDBs created from merchant craft, plus a number of armed cutters and other small craft. These are based out of the starport, which has a few salvaged turrets and some security troops. Garoo itself has a large (12,000-ton) orbital defense station, which is the base for three squadrons of TL9 fighters, a flight of TL9 gunships mounting salvaged weapons of a higher TL, 12 SDBs of various types ranging from a missile boat converted from a scout/courier to a 1,000-ton Xboat tender retrofitted with heavy hull armor and a particle accelerator bay. The mainstay of the PDC is a 5,000-ton monitor built out of six other ships.

The Republican Naval Corps

The RNC operates out of Garoo Starport, where a few security troops and a far greater number of technical personnel look after the ships of the fleet. The RNC actually operates fewer warships than logistics and transport vessels (although all transports are lightly armed and could contribute to a last-ditch defense of the system).

The RNC operates 11 transports, along with a fleet of 7 jump-capable warships. These range from a pair of 300-ton escorts to a 20,000-ton Vargr heavy cruiser (now much modified).

The Republican Customs Corps

The Customs Corps has about 300 personnel stationed around the Republic. It also operates three cutters, mainly to enforce prospecting restrictions at Garoo III.



No statistics are given here for Republican units. If a vessel is required for a scenario, its statistics will be presented there. GMs are encouraged to design their own ships for the Republic, using the following guidelines:

- Most Garoo ships are built around components salvaged at Graveyard. Construction is thus directed by what is available, and most ships are highly individualized. Some mount Darrian, Aslan, or even Droyme systems alongside Imperial-standard ones. A few ships, especially small craft, are locally built with TL9 components, making them far more standardized.
- There is always a lot of wasted space in Garoo designs as a result of using non-standard components.
- Design philosophy is to maximize firepower, at the expense of mobility if necessary. Low jump numbers and poor to inadequate defenses are common.



ADVENTURES IN THE REPUBLIC

There are many, many opportunities for adventure against the backdrop of the Garoo Question. Covert operations may be undertaken by all sides. Free traders may engage in illicit trade and smuggling. Scouts may be assigned to infiltration and intelligence-gathering. The military might even conduct surgical strikes. An ambitious GM might choose to run a diplomatic-level campaign in which the above may all come into play. With so many powerful groups involved, such a campaign could take many interesting turns.

THE GAROO SYSTEM

The Garoo system comprises three worlds and a sparse asteroid belt, orbiting two suns.

Garoo Prime is a main-sequence star which provides little warmth to the two worlds orbiting it (Garoo and Garoo III), while Garoo Beta is a tiny subdwarf in a far orbit. Garoo Beta provides a little light to its single frozen world, Graveyard.

The asteroid belt lies in an extreme orbit around Garoo Beta. It consists mainly of small dust particles with few bodies massing more than a few pounds. Ton-plus asteroids are very rare.

For a binary system, Garoo is empty and rather barren, with no gas giants. A microjump is the quickest mode of transit between the distant worlds of the system. If transit is made without using jump drive, the following table should be used to compute travel time. All transit times are given in days.

Transit Times

	1g	2g	3g	4g	5g	6g
Garoo Prime to Garoo III	1.7	1.2	1	0.8	0.8	0.7
Garoo III to Garoo	2.1	1.5	1.2	1	0.9	0.8
Garoo to Garoo Beta	5.6	4	3.2	2.8	2.5	2.3
Garoo Beta to Graveyard	14.5	10.3	8.3	7.2	6.3	5.9
Graveyard to Planetoid Belt	21.9	15.5	12.6	10.9	9.8	8.9

Garoo

Starport: Class V

Diameter: 1,802 miles (2,900 km)

Atmosphere: None

Surface Water: None

Climate: Frozen

Population: 200,000,000

Government: Oligarchy (the Garoo War Council)

Control Rating: 5

TL: 9

Garoo is the outermost of the two small rocky planets orbiting Garoo Prime. The world possesses an abundance of minerals but has little else to recommend it. Sealed habitats, in which the population is fairly self-sufficient, cover roughly 65% of the planetary surface.

Garoo Starport is the world's greatest asset; it contains a TAS hostel, a large highport, an Astroburgers franchise office, an Al Morai brokerage, and a sizable complex of shipyards. The population of Garoo is mostly Solomani in descent, with Vilani and other Humans making up less than 10% of the population. An enclave of Vargr (3.6% of the population) inhabit a ghetto known as Fenris Town. These Vargr are descendants of a group that arrived on Garoo in 603 during the First Frontier War aboard a misjumped heavy cruiser. The vessel and the plunder it contained were traded for the right to live on Garoo as part of its society.

Although they live apart from Humans, the Vargr are full members of Garoo society, with a representative on the war council. However, some extremists still view the Vargr as unclean "foreign dogs" and want to send them home to the Vargr Enclaves – or anywhere but Garoo.

Vargr starship design and weapon systems have greatly influenced the design of Garoo war and merchant vessels.

Garoo III

Starport: Class I

Diameter: 8,000 miles

Atmosphere: Standard Oxygen-Nitrogen

Surface Water: 43%

Climate: Cool

Population: 200

Government: Colony

Control Rating: 6 to 3, depending upon location

TL: 9

Garoo III is the nearest planet to Garoo Prime, and is actually more habitable than Garoo itself. The world was the last body in the system to be explored, hence its name.

Garoo III has remained undeveloped because it has little or no mineral wealth. This has not stopped hopeful prospectors from continuing to search for the deposits which, they reason, surely must lie hidden somewhere. And there may be something in the rumors of hidden wealth, for in 1101, Sternmetal Horizons set up a 12-man base and began extracting uranium from a site in the Dorra Badlands.

The only other settlement on the planet is the Republic's starport, Port Herty. This is a simple affair of precast concrete structures, operated by about 100 personnel of the Republican Customs Corps. Their main function is to check all the mineral claims, sell supplies to prospectors, and collect prospecting taxes.

All spacecraft arriving at Garoo III are required to land at Port Herty for an inspection, and no ships are allowed to operate away from the port. Prospectors are thus forced to use small ground vehicles. This simple law allows the customs service to effectively regulate prospecting activity, as all claims and finds must come through the port.

Graveyard

Starport: Class 0. The Salvage Corps operates a polar refueling station for salvage operations.

Diameter: 1,260 miles

Atmosphere: Trace oxygen-nitrogen

Surface Water: None

Climate: Frozen

Population: 750 naval and salvage personnel

Government: Commander in the Salvage Office

Control Rating: 5

TL: 9

Graveyard is a small iceball of a world at the very outer edge of the system. It has been something of a gold mine for the Republic. Over the years, many vessels have misjumped into Graveyard's gravity well (notably the heavy cruiser which brought the Vargr population to Garoo). The reason for this strange attraction is unknown, but as usual, the Ancients have received the blame.

Salvage operations have yielded a number of composite vessels to add to the growing strength of the Republican Navy. At present, the silent wrecks orbiting Graveyard include several Imperial traders. A Salvage Office SDB guards the wrecks, as a swarm of gigs carries technicians and salvage officers between the polar salvage station and the various derelicts.

Penelope

by Kurt Brown

Published July 4, 2000

Ignaz Ruffleran surveyed the small, dusty, unimpressive world that rotated beneath his ship. Its dusky russet color reminded him of Penelope's hair, and the small stature of the world reminded him of the delicate features of his ailing youngest daughter.

With a hint of remorse, Ruffleran pronounced, "This world I will name for my little Penelope. A world whose face reveals nothing, but surely hides worthy virtues."

As the world continued to roll beneath him, Ruffleran beheld a scar, a blemish on the face of the newly named world. A massive crater, one day to be known as Chixilub, was revealed in all its glory. Ruffleran smiled as the rays of the morning sun danced on the surface of the huge crater-lake. The long-exposed mineral deposits along the rim of the crater, untouched since their fiery creation untold thousands of years before, sparkled brightly even from orbit.

"Ahhh! My little one shows great promise, after all!"

*— The Dancing Sisters: From Dream to Reality,
University of Regina Press, 1103.*

km/186 miles) impact basin known today as Chixilub. This impact added enough volatile gasses from the body of the comet and vaporized planetary crust to thicken the planet's atmosphere. There are indications that the Darrians had begun to terraform Penelope, transforming the tainted atmosphere into a breathable one, but their efforts were abandoned during the Maghiz. There have been several minor archaeological finds related to the Darrian project, but none has generated a serious inquiry into their occupation of Penelope. Scientists estimate that Penelope's atmosphere will revert to a thin standard rating within 15,000 years unless more gasses are added.

A full system survey, conducted to locate potential sources of water for the terraforming project, has identified a massive comet that some researchers think could be the source of the impactor that created the Chixilub crater. (Its orbital period of nearly 50,000 years lends credence to these speculations.) While there is a great deal of academic interest in the comet, the Spinward Development Corporation (SDC) does not have the resources for a research expedition to the distant, frozen body. This comet, dubbed Mother, will return to the inner system in approximately 250 years.

Chixilub, the deep crater lake located in the northern hemisphere of Penelope, contains almost half of the planet's water. The water is highly metallic, so it must be thoroughly filtered to provide fuel and drinking water. The remainder of the planet's water is locked in permafrost layers at the north and south poles. Penelope's starport, located at the north pole, gets much of its water from deep wells that tap into the permafrost layer. There is some concern that the permafrost of the northern cap may be depleted in the near future, adding another incentive to speed up the terraforming process.

While the major features of Penelope are its extensive deserts and boulder fields, there are ancient signs of water in the form of dry riverbeds, lakebeds, and a large oceanic basin near the south pole. Penelope currently has no active volcanoes, although there are signs of eruptions as recently as 1,500 years ago. The world boasts several major mountain ranges, including the rugged Enckar Massif and the Semmaj "islands," a chain of 12 volcanic peaks in the southern oceanic basin. These islands have been visited recently by scientists from the University of Rhylanor, although the reason for their visit is unknown.

Soil analysis of Penelope indicates a high metallic content (a boon for the miners and the local industries constructing terraforming machinery) that makes it currently unsuitable for farming. Geologists have theorized that once the terraforming process is underway, the heavy planet-wide rainfall should leach most of the metals from the soil within 50 years. This, along with the addition of organic compounds such as microscopic algae, should leave the soil suitable for large-scale farming. Planetary biologists have indicated that

PLANETARY DATA

A small desert world with no moons, Penelope has a standard atmosphere but very little standing water, most of which is concentrated in one crater lake and in permafrost layers at the north and south poles. Penelope is classified as hot, with daytime temperatures at the equator averaging 104°F (40°C). To date, there are no indications that life has ever arisen on Penelope, although there has been little organized research into the subject.

Penelope's population averages 3,000,000, including in-system miners and terraforming specialists. Penelope has a Class III starport with minimal highport facilities, mostly used to service the comet-wranglers and bulk freighters importing food for the workers on the surface. Penelope's Control Rating is 1, although it may be higher in some areas; visitors are advised to check with local authorities regarding restrictions on weapons. Penelope has little in the way of industry that is not related to the terraforming project. The world is TL5.

PHYSICAL FEATURES

In many ways, Penelope resembles Mars in the Sol system. Its surface is dusty, wind-blown, and inhospitable to most forms of life. Penelope stands out from most planets of its size in that it has a standard atmosphere. Planetologists have determined that this is due to a cometary impact approximately 50,000 years ago that created the large (300

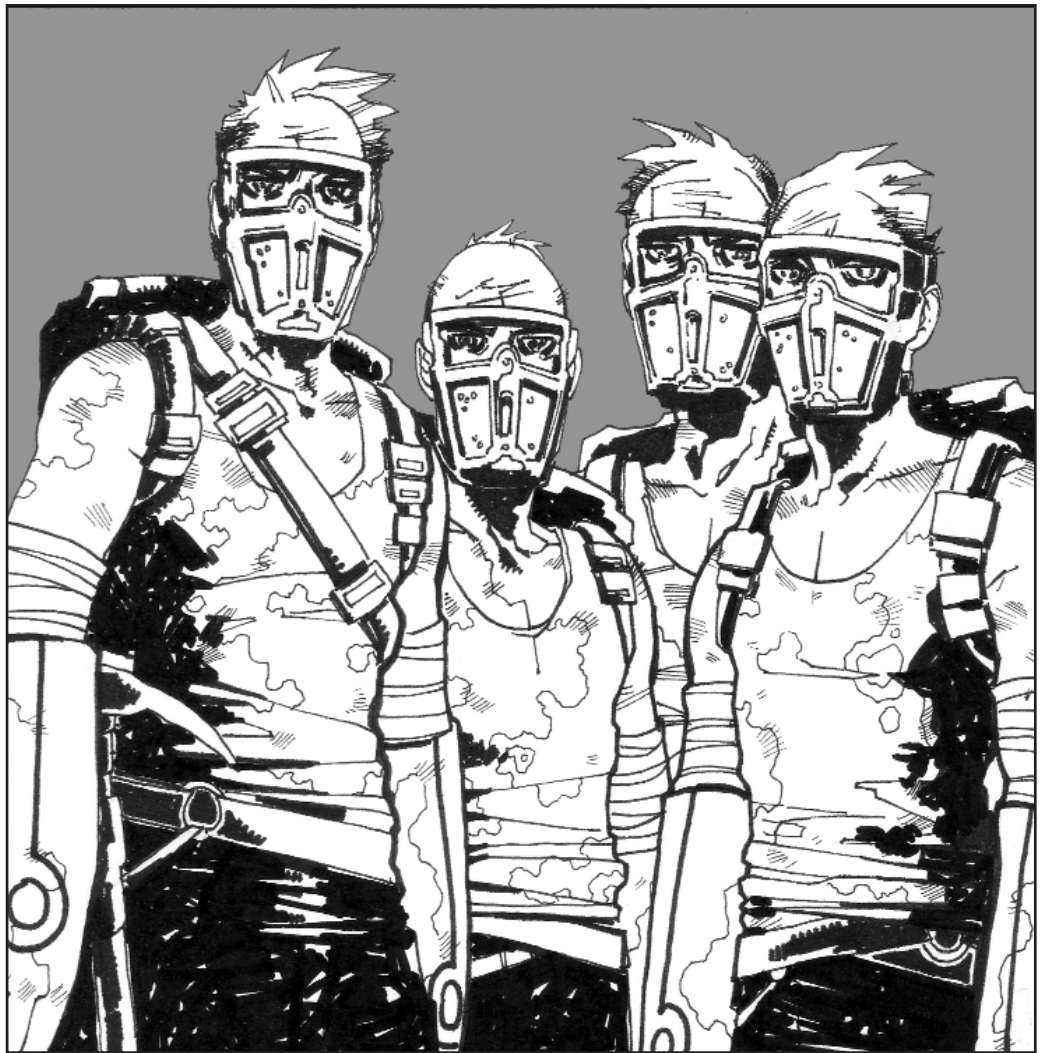
once the metallic poisons have been brought down to tolerable levels, Penelope should produce self-sustaining crops. Most estimates indicate that this should be possible within 50 years of the first 'berg-fall, scheduled for 3/1130. SuSAG, under contract to the SDC, has established a small research facility near the south pole to develop fertilizers and other chemical agents to speed the process of plant growth on Penelope. There are rumors that SuSAG has already developed a hybrid microscopic bacterium that thrives in a heavily metallic soil, converting the metal into usable organic compounds. If this were the case, it would trim years from the terraforming project.

GOVERNMENT

Technically, Penelope is a representative democracy. In reality, the small population results in a system that is closer to a true democracy, where every citizen has one vote in all matters and the majority decides the outcome of the vote. There are elected officials at the local and planetary level, but their influence is very limited. The dispersed nature of the population and the fact that the Spinward Development Corporation is the primary employer leads to low voter turnouts and gives the megacorp a great deal of influence over important matters on Penelope.

Penelope's League of Independent Miners (LIM), although not as numerous as the SDC employees, have on occasion banded together and voted in large enough numbers to overturn SDC decisions. The most notable of these was the Ancestral Landhold Resettlement Act of 1115, which was to have assigned plots of land above the projected sea-level to individuals in exchange for their property rights to areas that will be inundated during terraforming. The miners saw this as a transparent land grab by SDC, intended to divest them of their mineral rights in and around Chixilub crater. Since the majority of the population that is loyal to SDC lives above the projected sea level, they failed to grasp the significance of the issue. Despite a vigorous campaign by the SDC, they were unable to muster enough votes to defeat the miners.

The Main Council, located at Penelope Downport, is the only ruling body that may pass binding legislation. It is supported by local councils, consisting of 10 members, elected by the population of the town or village that they serve. The



local Councils serve as deliberating bodies that determine which issues of local importance will be sent to the Main Council via their representative. The local Councils send one representative to the Main Council once per year to vote on matters affecting the entire planet. Any citizen can propose a measure before their local council, but it must receive a "yea" vote from at least 50% of the members before it will be forwarded to the Main Council for further debate.

Voter apathy and the dispersed nature of the population keeps most frivolous measures from getting on the ballots, ensuring that only well-publicized items or those perceived as vital by the populace will be debated and voted on. However, there have been some notable exceptions, such as the famous "No Underwear Thirdday" referendum of 1108 that was narrowly defeated in general voting.

The Imperial Navy's Five Sisters Naval Administrative Region (FSNAR) maintains a small office at the main starport to oversee the votes and ensure their legitimacy. This office is frequently the scene of protests by independent miners and other citizens not directly employed by the SDC. While the FSNAR has not interfered in Penelope's internal affairs, they have expressed concerns about the nature of the democratic process on Penelope. They have noted numerous instances of influence-peddling by SDC employees and have levied fines against the corporation on several occasions.

Despite the nearly pure democracy of Penelope, there are elected officials at various levels of government. From the mayors of local settlements to the President, these individuals primarily serve as referees during the spirited public debates and are responsible for administering the policies enacted by the people. The President of Penelope, K'eeagan Gallitin, is in essence a figurehead. She serves as the point of contact between Penelope and the Imperial government, passing along the concerns of the planet and its population, and conveying Imperial wishes to the people. All elected officials except the President serve a one-year term. Although they may serve an unlimited number of terms, they many not do so in consecutive years. The President serves a four-year term, allowing for more continuity in the overall representation of Penelope. Elections are held annually, on Holiday.

Due to the more libertarian nature of the government of Penelope and the fact that SDC supplies much of the essential infrastructure of the planet, such as water treatment, garbage collection, roads, and the starport, taxes are fairly low. There are no income taxes or taxes on private business. Instead, the needs of the government are met by a 5% sales tax on all goods and services. These funds are used to pay the salaries of elected officials, purchase tracts of land for the establishment of future cities and installations, and provide for the law enforcement and planetary defense forces of Penelope. Once the terraforming project is complete and SDC withdraws, this situation will no doubt change dramatically.

JUDICIAL SYSTEM

Due to the more rugged and individualistic "frontier" nature of Penelope, the planetary Control Rating is much lower than the Imperial average. While the few planet-wide laws are designed primarily to protect personal property rights, enforcement of these laws is swift and forceful. Generally speaking, Penelope's legal system follows a "live-and-let-live" policy. However, some local enclaves have more restrictive laws, so travelers are advised to check with local authorities for more detailed information.

Juries of nine citizens, randomly chosen from the local population, handle legal matters at the local level. The jurists are chosen from among people who have voted on at least one occasion in the prior year, ensuring that only civic-minded individuals with at least a minimal knowledge of current events sit in judgment of criminals.

Trials are presided over by an elected judge, who is responsible for relating the relevant laws to the jury and answering questions that they might have about the application of those laws. The judge does not render a verdict, but is responsible for passing sentence based on established laws and precedents, as well as administering the punishment of convicted criminals. In many cases, judges also serve as law-enforcement officials, roughly analogous to sheriffs on pre-starflight Terra. There have been complaints in recent years of corruption by the judges in several outlying communities, but to date, no official investigation has been launched. A panel of nine judges selected at random from all currently appointed judges on Penelope hears matters of planetary sig-

nificance at the Supreme Court. Judges are elected for terms of one year; they may serve an unlimited number of terms, although not in consecutive years.

ECONOMY

In effect, Penelope has two economies. By far the most important to the future of the world is the Spinward Development Corporation's administration of the planet as a major terraforming project.

SDC purchased a charter to develop Penelope for MCr1,000,000 in 1020. This purchase included the surface and mineral rights to large tracts of the planet, allowing SDC to sell plots of land to speculative buyers for Cr2,000 per acre. There have been reports of sales of forged land grants by offworld speculators, but local authorities have been unable to identify the source of the bogus deeds. There are also extensive portions of the surface set aside as Imperial preserves that may be developed or sold by the Imperium at some point. To date, SDC has sold over 500 million acres on Penelope. Sales of property are expected to increase rapidly over the next few years as the terraforming project enters its critical stages.

SDC and Imperial economists have projected that the terraforming project will cost nearly MCr20,000,000 over the 150-year life of the project. Over the last 50 years, SDC has injected nearly MCr7,000 per month into Penelope in the form of salaries and the purchase and import of high-tech equipment, medical care, and other goods and services that cannot be supplied locally. While the majority of goods on Penelope are sold in SDC-owned stores, the balance has begun to shift toward private enterprise, a move SDC is actively encouraging. Unfortunately, with the shift toward a privatized market economy, SDC has lost some of its control over what goods are imported. This has led to an increase in illegal goods such as the drug CBP, a highly addictive narcotic supplied by an unknown offworld source.

SDC offers discounts on acreage to individuals or small businesses that immigrate to Penelope and contribute to the local economy, easing the burden on SDC and reducing their costs. Despite the increased activity and the associated expenditures leading up to 'berg-fall in 1130, SDC's monthly costs have actually been reduced in recent years due to the increase in privatization.

The other segment of Penelope's economy is the League of Independent Miners, a loose confederation of hereditary mining families that lay claim to the mineral-rich cliffs that ring the Chixilub crater. Their position is backed by the fact that they occupied well-established settlements at the time of the Second Survey in 995.

This group is truly libertarian in their outlook, claiming complete independence from SDC and true loyalty to the "ideal" of Penelope: that of a free state of pure economics, powered by supply and demand. While they are relatively few in number (200,000 in several large "family" businesses), the LIM wields considerable influence in the Five Sisters subsector and beyond, due to their impressive wealth accumulated over several generations of mining the largest open-pit mine in the Spinward Marches.

The LIM has established the equivalent of their own Class II starport at Chixilub, where their own freighters load refined ores for export to offworld markets and, despite some reservations, to the SDC as well. LIM has imported food and other necessities in the past, but has recently begun to purchase these items from local independent merchants at the main starport as a show of economic solidarity with their “neighbors” to the north. To date, the LIM has managed to avoid the spread of illicit drugs that are beginning to affect the SDC operation at the north pole.

THE FUTURE

Terraforming technicians are currently shaping the landscape of Penelope, preparing biological packages that will be deployed to take advantage of the massive influx of water that the ‘berg impacts will produce. Hundreds of beltlers are preparing the icy moonlets of the system’s gas giants for delivery via low-energy orbits to their new home. Comet-wranglers have already begun to pull comets out of their elliptical orbits in the inner system and send them down the gravity well, where they will be herded into stable orbits around Penelope. They will be fractionalized and de-orbited to begin the process of creating oceans and building a more robust atmosphere. Work has already begun installing massive maneuver drives on the larger iceballs in preparation for the move.

This is the future that the Spinward Development Corporation is working to achieve, but the League of Independent Miners and their claims to ownership of the Chixilub crater may be jeopardizing the terraforming project. As of 6/1120, a formal complaint has been filed by LIM with the local Judge Advocate General’s office for the Five Sisters Naval Admin-

istration Region. SDC is currently under notice that unless a settlement can be reached with LIM that resolves the situation to the satisfaction of all parties by 001-1122, the terraforming project will be placed on hold by the Naval Administration pending further investigation into the claims of LIM and SDC.

LIM’s position is strengthened by the fact that they claim ownership of the Chixilub crater mines, backed by their Imperial Charter. They also present a strong case that the mines are an important strategic resource for the Spinward Marches. SDC points out that LIM’s Imperial Charter states that their claim is valid so long as it is being put to the “best possible use.” SDC states that a fully terraformed Penelope would become a potential breadbasket for the Five Sisters and beyond, far outweighing the value of the mines at Chixilub. Most outside observers note that both sides can make a legitimate claim and predict that the battle for control of Penelope could be protracted and expensive for both sides.

LIM has retained the respected law firm of Gerhardt, Yaleewoleh, & Tinsie to represent them in their case against the powerful in-house attorneys of the SDC. The conflict on Penelope holds the potential for setting several precedents and is being closely watched as far away as Capital/Core.

While there have been few reported incidents between SDC and LIM employees, tensions are expected to rise as the settlement date nears. The FSNAR is watching the situation closely through their on-planet personnel, but so far has maintained a “hands-off” approach in order to avoid the appearance of using strong-arm tactics to force a resolution. Despite the desire of the Navy to stay out of the situation, many experts feel that they will eventually be drawn into this conflict.



Background

Articles expanding the history of the *Traveller* universe are also extremely popular, whether exploring the “canon” or presenting a variant to the official background. *Traveller* presents a

very large canvas for GMs to paint their own universe upon, and part of the fascination of the game is how the characters interact with the myriad different societies and cultures.

The Rule of Man

by Kurt Brown and James Maliszewski

Published July 11, 2000

Part of the popularity of *Traveller* is its extensive history. Beginning 300,000 years ago and stretching into the far future, this history adds a level of detail to its background that few game settings can match. Consequently, players and Game Masters alike have a ready-made context in which to place their adventures among the stars. In addition, it's theoretically possible to set those adventures in different time periods, thereby taking further advantage of *Traveller*'s sweeping history. In two of its later incarnations, *Traveller* did just this, setting its action at the founding of the Third Imperium (Marc Miller's *Traveller, 4th Edition*) and in the rebirth after its demise (*Traveller: The New Era*).

A history as broad as *Traveller*'s will inevitably have gaps – even significant ones – that limit one's options for roleplaying in other eras. One of the largest concerns the Third Imperium's immediate predecessor, the Second Imperium, more popularly known as the Rule of Man. With its valiant-but-doomed ethos and emphasis on individual accomplishments, the Rule of Man has great potential as an alternate campaign setting for *Traveller*. Unfortunately, what little canonical material has been published on the period is scattered throughout numerous sources, many of them long out of print. The purpose of this article is thus twofold. First, it is intended to collect and collate previous information on the Rule of Man, so as to create a clearer picture of the period. Second, it will show how that material can be used to create an excellent backdrop for a historical *Traveller* campaign.

One of the ironies of the paucity of information on the Rule of Man is that it gives the GM a free hand in the development of his own campaign. For instance, we know the names of only the first two emperors of the Rule of Man. The rest of its history is no more detailed. Therefore, a GM can make the setting his own without fear of contradicting canon. Likewise, the players have no idea how events will unfold, giving the campaign an uncertainty it could never possess in the more detailed Third Imperium. This article provides a framework of “known facts” against which a GM can set his own game, as well as suggestions on how to do just that.

TIMELINE OF THE RULE OF MAN

All dates on the timeline (see p. 25) are listed first in Imperial years, followed by the Terran dating system (known either as A.D. or C.E.) used during the Second Imperium.

The 428-year history of the Rule of Man can be broken into three distinct phases. The first, lasting from -2204 (2317) to -2000 (2521), is a period of dynamism and growth, as the Solomani take over the reins of power in the Ziru Sirka. It will be called “The Rule of Man period.” The second phase, lasting from -2000 (2351) to -1850 (2671), is a period of increasing instability and internal conflict. This article will refer to it as the “Second Imperium period.” The third phase, lasting from -1850 (2671) to -1526 (2995), is a time of civil war and deterioration. This article will refer to it as the “Ramshackle Empire period.” Each period offers opportunities for adventure unlike those found during the reign of the Third Imperium.

THE SEEDS OF EMPIRE

The Interstellar Wars ended when the Vilani Grand Imperium of the Stars (Ziru Sirka) collapsed, partially from its own age and fragility, and partially from the Terran victories. The Terrans moved quickly to occupy Vilani territory. Many Vilani subject races, like the Vegans, welcomed the Terrans as liberators. Terran naval officers were dispatched throughout the Grand Imperium. Between 2299 and 2314, over 100,000 naval officers were sent to take up the reins of government, direct local bureaucracies, and maintain peace and order.

These officers occupied key posts in the Vilani bureaucracy, which otherwise remained intact. In some cases, Terran ensigns administered entire worlds and mere commanders whole subsectors. Vilani military forces were incorporated into the Terran forces.

- 2422 (2099): First contact with the Vilani.
- 2219 (2299): Nth Interstellar War ends. Collapse of the Ziru Sirka.
- 2204 (2317): Hiroshi Estigarribia establishes the Rule of Man.
- 2177 (2344): Estigarribia's aide-de-camp assumes the title Emperor Hiroshi II.
- 2170 (2351): After consolidating his position, Hiroshi II transfers the government from Dingir and Vland to Hub/Ershur.
- 2170 to -2000 (2351-2521): Terrans spread through charted space, as Terran diseases ravage the Vilani.
- 2100 to -1849 (2421-2672): The Rule of Man fails to settle on a formal method of choosing an emperor. Succession struggles routinely cause massive civil unrest.
- 2000 (2351): First contact between Zhodani and Vilani traders on the Spinward frontier.
- 1900 (2451): Governor Frances Repzinski becomes High Protector of Sylea.
- 1850 (2671): Lack of cooperation between member worlds of the Rule of Man becomes more common. Solomani Rim cut off from the core of the Rule of Man.
- 1849 to -1776 (2672-2745): Succession struggles becomes worse. Up to a dozen individuals may be vying for the throne at any time.
- 1800 (2721): Resurgent nationalism among minor races becomes common.
- 1799 (2722): Border worlds start refusing offworld currency.
- 1776 (2745): Financial collapse of the Rule of Man. The treasury on Hub/Ershur refuses to acknowledge a monetary issue from the branch treasury at Antares. Generally regarded as the date for the fall of the Rule of Man.
- 1776 to -1500 (2745-3021): The first stages of the Long Night is marked by warfare among the RoM's small successor states, sometimes no more than large-scale piracy. Interstellar trade ceases in most areas. Some worlds, not self-sufficient, simply die; many worlds' economies are ruined; most lose the technology to construct starships.
- 1526 (2995): The last governmental body claiming to be the Rule of Man (on Sylea/Core) ceases to exist. Interstellar ships can no longer travel (on average) more than one year (perhaps 30 parsecs) without being attacked. The net growth of industrial output throughout the Empire is negative; factories are closing faster than new ones can open.
- 1500 (3021): The wars in most of the former Rule of Man are over. Most of the old starships have broken down and no one knows how to repair them. Only a few scattered areas have managed to keep jump technology and rarely are any of these pocket empires close enough to interact with one another.

During this period, the Terran Navy learned to deal effectively with the Vilani and understand their culture. That the Vilani openly accepted the Terrans made it easier to view them as friends deserving of respect and protection. The Terrans had to administer an immense interstellar empire that had already proven unable to do so itself. If the bureaucracy had collapsed – and commerce ended – hundreds of worlds would have died as supplies were cut off. The Terrans thus fought a heroic battle simply to keep the Vilani Imperium functioning on a day-to-day basis.

DECLARATION OF THE RULE OF MAN

In 2314, the Terran Secretariat voted to transfer control of the conquered Vilani territories directly to Terra, and incorporate the Ziru Sirka's territory into the Terran Confederation. Such a move would have enriched the Terrans but at an untold cost to the citizens of the Vilani Imperium. Admiral Hiroshi Estigarribia, commander-in-chief of the Terran Navy, realized that the Confederation government could not possibly control the vast territories of the Grand Imperium. In a military *coup d'etat*, he proclaimed himself Regent of the Vilani Imperium and Protector of Terra, with both states now united in a new government he called the "Rule of Man." Nearly all of the fleet sided with Estigarribia, both because it was composed mainly of colonials (who were under-represented in the Terran Confederation government) and because of his careful preparation. Estigarribia dissolved the Terran Confederation without significant resistance. During this time, the term "Solomani" was coined to describe humans of Terran descent.

Terran fleet headquarters at Dingir became the capital of the Rule of Man. The bureaucracy remained centered on Vland, although arrangements were made to gradually transfer it elsewhere. Upon Estigarribia's death, his chief of staff succeeded him, and crowned himself Emperor Hiroshi II. Estigarribia did not actually assume the crown, but is nevertheless known to history as Emperor Hiroshi I.

GOVERNMENT

Hiroshi II transferred all government functions from Dingir and Vland to a more centrally located world, renamed bilingually Hub/Ershur (Massilia 0402). This world remained the capital of the Rule of Man for the next 400 years. Terran rule was no more enlightened or progressive than that of the Vilani. From a tight, paternalistic, economic empire, the pendulum swung to a disjointed military empire. Neither was tenable over such a large area of space. The heroism of the Rule of Man period gave way to the quiet desperation of the Second Imperium period.

Initially, the Rule of Man eschewed noble titles and the trappings of aristocracy. Hiroshi I never proclaimed himself emperor and there is some suggestion that he was uncomfortable with the absolute power he wielded as leader of the Rule of Man. To the Vilani mindset, the Solomani military rulers were replacements for their disenfranchised nobles.

As the Solomani became more familiar with Vilani culture, they slowly accepted this association and the trappings of nobility appeared. It was only a matter of time before the Rule of Man government acknowledged ancient Vilani titles and created new ones to serve its own ends.

Under Solomani rule, minor races prospered. For example, the Vegan Polity came into its own. The Darmine culture of Zarushagar was also allowed to flourish within the Rule of Man. While some historians attribute these events to Solomani “broad-mindedness,” the fact is that simple pragmatism demanded such a stance. Numerically outnumbered by the Vilani, the Solomani granted regional autonomy and home rule to many groups that supported and assisted the new regime.

The Rule of Man was increasingly an empire in name only, as nobles, corporations, and military commanders exercised wider and wider authority of their own accord. Many of the Second Imperium’s coreward sectors became detached from those to rimward. Large Vargr migrations passed through Meshan, Mendan, and Amdukan sectors. Many worlds in those sectors gained and retained significant Vargr populations. These sectors became largely self-governing, except for a small bureaucracy that presided over it.

DEMOGRAPHICS

The Vilani had coped with the problems of ruling a large interstellar empire by a rigid caste system, with all citizens permanently rooted in their places. The Terrans abolished this system, but were unable to replace it with a new social order. Destruction of the caste system swept away the foundations of society. Key industries fell apart as their workers moved elsewhere. In addition, the Solomani spread throughout much of the region presently ruled by the Third Imperium; the Terrans were superb in expanding to other systems and other worlds. Meanwhile, people of Terran ancestry or culture (many of them assimilated Vilani) assumed positions of power on most worlds, becoming industrialists and administrators. During the Rule of Man, wealthy Vilani tended to change their names to Solomani surnames.

COLLAPSE

The new blood that the Terrans infused staved off collapse for 400 years, but it could not stop the inevitable. The problems of sheer size and scientific stagnation, which brought about the fall of the Ziru Sirka, continued to plague the Rule of Man. After 2,000 years, the collapse of the Vilani Imperium was inescapable. The arbitrary -1776 date for the end of the Rule of Man notes the financial collapse of the central government. Monetary circles lost confidence when the Hub/Ershur Treasury refused to honor a monetary draft of the Antares branch treasury. This marked the end of large-scale interstellar trade, and of effective government power within the Rule of Man.

Although it survived for many years, the Rule of Man had ceased to be a viable interstellar community. The period known as Twilight had begun.

TECHNOLOGICAL CONSIDERATIONS

The Rule of Man, like the Ziru Sirka, ruled more worlds than the Third Imperium. Yet, the overall technological level of the Second Imperium was no greater than 12 (*GURPS Traveller* TL10). The innovation that had distinguished the Solomani during the Interstellar Wars effectively stopped during the Rule of Man, whether due to the acceptance of Vilani conservatism or distraction while staving off the collapse of the Imperium.

At this tech level, jump 3 was the fastest at which starships could travel. This is an important consideration, as it was yet another factor in the regional autonomy that characterized the Rule of Man. The slowness of communications in this era ensured that wide latitude was given to governors and military commanders alike. Any attempt to micromanage events was doomed to failure. Similarly, communication lags undoubtedly contributed to the incessant rebellions and coups that marked the dying days of the Second Imperium.

THE ROLE OF THE MILITARY

The Rule of Man had its beginning as a military state and that origin colored its entire history. In the earliest days of the Empire, naval administrators ruled many worlds. The Navy had inordinate power over local affairs as well as Empire-wide policies. The first (and many subsequent) emperors were naval officers. As one might guess, the Navy had a prominent place in the Rule of Man.

THE IMPERIAL NAVY

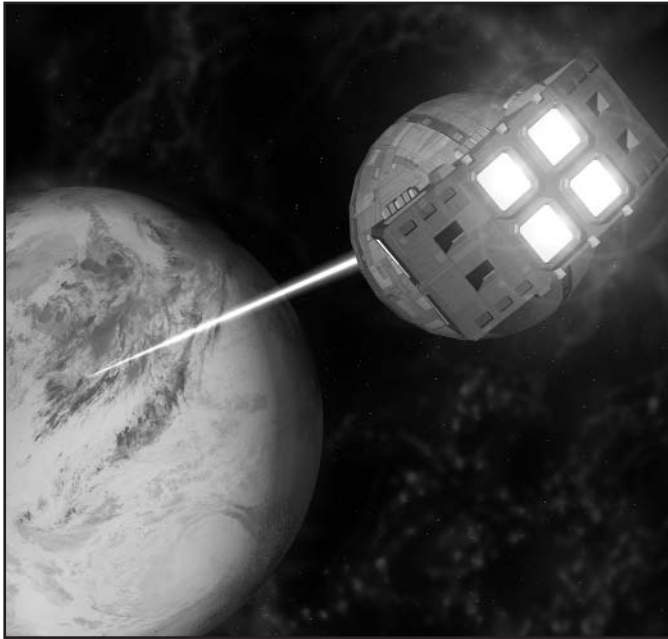
The overall structure and mission of the Imperial Navy can be traced directly back to the victorious Terran Confederation Navy. Vessels tended to be large, powerful affairs, combining many roles to allow for the more autonomous actions that communication lags dictated. The Imperial Navy undertook several missions under one banner that future empires would handle by separate services. Naval vessels serve as scouts, diplomatic vessels, system defense boats, convoy escorts, and numerous other functions. This is a reflection of the militaristic nature of the Rule of Man, and the utilitarian nature of her rulers.

An example of this can be found in the earliest days of the Empire. After the formal surrender of the Ziru Sirka, naval vessels were dispatched to the outlying worlds of the former Vilani empire to spread the word of the integration of the two empires. The vessels would stop over at Vilani worlds, broadcast their edicts, and then move on to their next stop. In many instances, these initial contacts resulted in armed confrontations that reinforced the view of the military rulers of the Empire that armed and armored naval vessels were the best choice to greet their new neighbors.

As the naval “scouts” passed beyond the edge of the Ziru Sirka, they took on the role of explorers and ambassadors of the Empire. Naval vessels mapped new systems, made first

contact with many minor and major races, surveyed archaeological sites, and conducted the business of administering the outlying worlds of the new Empire.

When the Rule of Man began to unravel in later years, the Navy played many roles as well. As the instrument of policy for the Emperor, the Navy would often find itself enforcing unpopular edicts, fighting to maintain or regain control of rebellious worlds, and conducting campaigns against increasingly aggressive external threats. Emperors were careful to maintain the favor and loyalty of their admirals. Many times, their most trusted officers would turn on them and place themselves on the throne.



THE IMPERIAL MARINES

While the Navy was the glamour service of the Rule of Man, the Marines were the glue that held the Empire together against the forces constantly threatening to pull it apart. Marine detachments policed the streets of the cities of the Empire and fought her wars on airless moons and in the deepest seas.

Marines were actually held in higher regard on many worlds than their compatriots in the Navy, simply because the Navy was distant while there might be a Marine barracks down the street. Many military strategists understood the importance of maintaining the goodwill of the local populace, and Marines were viewed as an effective way to “win the hearts and minds” of the new citizens of the Empire while maintaining security forces on-world. Marines tasked with barracks duty called their tours “Public Relations,” with a tongue-in-cheek nod to their use as riot troops during times of unrest.

Despite their use as goodwill police on occupied worlds, Marines maintained their training for their primary and enduring purpose: shock troops. Imperial Marines were expected to drop directly into raging firefights and smoldering, slag-filled craters with no thought to anything except their ultimate goal: to capture another world for the Emperor.

Popular entertainment shows and publications of the time frequently exaggerated the exploits of the Navy; no such embellishments were required for the stories of the Marines.

While the Marines bore the brunt of the fighting in the efforts to secure worlds for the Empire, their political power was vastly inferior to their shipboard comrades. As one Marine commandant of the time remarked, “We prefer to put our knives into the chests of our enemies, not their backs.” Despite this, the Marines were a well-regarded service that was respected by the majority of Emperors. Several Emperors’ personal guards were Marine veterans.

THE IMPERIAL ARMY

The “Forgotten Service” of the Rule of Man, the Imperial Army was charged with the long, hard surface-campaigning that truly earned the worlds of the Empire. While the Navy fought splashy battles overhead and the Marines secured the beachheads, the Army spent the time, resources, and manpower needed to conquer a world.

Imperial Army units served as garrisons on worlds where it was important to maintain a significant military presence, but as the Empire aged, their role began to be reduced. The stagnation of the Imperium meant there were no wars to fight and no worlds that needed conquering. The Army was tasked with building and maintaining much of the infrastructure of the Empire on the assumption that a busy Army was a loyal Army. Despite this policy, disgruntled Army officers and their troops fomented some of the earliest open revolts against the throne. Some of the fiercest fighting of the final years of the Second Imperium took place amongst her own troops.

CORPORATIONS IN THE RULE OF MAN

Prior to the rise of the Rule of Man, Vilani society had no “corporations” in the traditional sense. The majority of production, research and development, and exploitation of resources was conducted by governmental “bureaus”: rigid organizations directed by centralized authorities that were, in essence, monopolies steered by state directives.

In contrast, Solomani corporations grew out of Earth’s long history of economic and social Darwinism. The strongest privately owned businesses prospered while their less capable competitors struggled to survive. The corporate pecking order was periodically overturned as larger companies grew too ponderous to compete with their younger, faster rivals.

These two wildly dissimilar economic systems met head-on during the consolidation of Vilani worlds within the Rule of Man. Although Solomani corporations were more than willing to fill the perceived void within the Vilani territories, they found themselves in direct competition with the entrenched, monolithic bureaus that had provided the needs of the billions of citizens of the Ziru Sirka. Vilani citizens were slow to accept the products and services of the aggressive Solomani corporations, slowing their growth and stifling the anticipated economic increase of the Solomani private sector.

A NEW ERA OF COMMERCE

In 2321, Admiral Gwen Firstenberg was assigned the task of overseeing the integration of the Vilani and Solomani economies. She realized that in order to foster the robust competition for goods and services that would allow for economic growth, the Vilani bureaus would need to be remade in the image of Solomani corporations. Her office, backed by the authority of Emperor Hiroshi I, instructed the leaders of the various Vilani bureaus in the finer points of capitalism and competition. Within a decade, the Vilani bureaus had converted themselves into privately owned corporations in direct competition with their Solomani rulers.

Initially, the Solomani corporations held the upper hand in the “trade wars” that erupted; their centuries of experience in advertising, product development, and marketing gave them an edge that the fledgling Vilani corporations were hard-pressed to master. Many years passed before the leaders of the “Vilanicorps” (as they were derisively termed by their Solomani competitors) fully understood and began to master the art of trade. The first decade of the integration saw huge expanses of the Vilani market fall before the advancing Solomani marketers. The second decade would see the rise to dominance of the only corporations that would survive the Long Night: the Vilanicorps.

The Corporations of the Rule of Man

The following is a list of several of the corporations that were active during the Rule of Man. Interestingly, there were no true megacorporations during the Second Imperium. Most corporations of this period were locally based, the largest spanning a sector or two. Few survived the Long Night. Those that did not make the transition are indicated with an asterisk.

***Allied Aerospace, Inc.:** Allied Aerospace was one of the oldest manufacturers of small craft, launches, and fighters in the Solomani Confederation. Active and successful for over 400 years, Allied finally filed for bankruptcy in 2558.

***Barracuda Arms, Ltd.:** Barracuda Arms held the distinction of being the longest continuous manufacturer of long arms for the Solomani military before it was absorbed by the Vilani firm Kumarrusirmagan in early 2618.

Gesichtkreis Sternschiffbau AG: GSbAG managed to survive the turmoil of the Rule of Man to become a leading manufacturer of starships during the Third Imperium.

***Ishagninana:** A Vilani corporation formed after the consolidation that specialized in the manufacture of cargo vessels, it eventually became the primary manufacturer of medium warships for the Imperial Navy. Ishagninana’s attempted takeover of GSbAG in 2535 led to severe restrictions regarding naval contracts. Unofficially blacklisted by the Imperial Navy, Ishagninana closed its doors in 2621.

***Kwame Communications:** The leading Solomani communications and computer hardware manufacturer, Kwame survived numerous takeover attempts and even managed to absorb some smaller Vilani corporations before finally being bought out by Naasirka in 2728.

Makhidkarun: Makhidkarun was formed from a number of smaller entertainment-based bureaus that merged into one entity during the consolidation phase of the Rule of Man. This diversification allowed Makhidkarun to become one of the most successful Vilanicorps in history. Operating on the premise that all sophonts need entertainment, Makhidkarun has specialized in the communication, entertainment, and software industries. They produce fine musical recordings, two- and three-dimensional motion pictures, books, magazines, and original as well as reproduction art. Makhidkarun also has a gourmet-foods division specializing in all manner of exotic foods, spices, and wines.

***Midrange Manufacturing:** A consumer-goods manufacturing corporation, Midrange specialized in home and office appliances and fittings for starships. Successful for many years and well-regarded for its workmanship and affordable prices, Midrange formally closed its doors in 2634 under mysterious circumstances – employees across the Empire arrived for work to find the factories locked and their severance packages electronically transferred to their personal accounts. The factories and their contents were auctioned off, with the proceeds deposited in several private accounts throughout the Rule of Man.

Naasirka: Another of the more successful Vilani corporations, Naasirka specialized in the manufacture of information-storage and -processing equipment, software, computers, robots, and other complex electronic equipment. Another company that managed to survive through diversification, Naasirka was one of the few corporations that managed to survive the Trade Wars period with a relatively clean record. Speculation abounds as to how Naasirka managed to prosper in a market saturated with numerous electronics and software corporations without resorting to some form of back-room dealings.

Sharurshid: A Vilani trade and speculation corporation, Sharurshid survived the battles between the corporations mostly through luck and its small size. Sharurshid was a minor corporation during the Rule of Man that finally came into its own during the later years of the Long Night.

***Sokashi y Terlingua:** The parent company of several media and entertainment outlets, SyT survived numerous takeover attempts before receiving “official” patronage of the Royal Families of the Imperium in 2516. In effect, SyT became an official media organ for the Emperors. SyT survived until the collapse of the Empire, when it faded from history. No official record exists indicating its ultimate fate.

ADVENTURING IN THE RULE OF MAN

Adventures and campaigns set during the Rule of Man can be very similar to ones set in the Third Imperium. There are opportunities for mercantile adventures, mercenary strikes, archaeological expeditions, and more. In some ways, the “frontier” nature that marked the history of the Rule of Man lends itself to more rough-and-tumble adventures. Additionally, the players may want to try their hand at

empire-building, taking their roleplaying experience to a higher level: that of attempting to shape the destiny of whole worlds, as opposed to their own personal ambitions. The flavor of the adventure is heavily dependent on what period the GM wishes to set his campaign in.

RULE OF MAN PERIOD (-2204 TO -2000)

During this time, the Solomani attempted to consolidate their gains while struggling against their own internal forces threatening to splinter the newly formed empire.

Commander Despot (Adventure)

During the early years of the Rule of Man, the Navy took over administration of thousands of worlds from the Vilani bureaucracy. In a scene played out many times during this period of consolidation, the party is dispatched to remove a local governor whose hatred for the Vilani and inherent instability has led to a series of atrocities and repression of the local population. Now the Commander has issued a “Declaration of Independence” from the Imperium. He must be taken care of and the world brought under more stable control to prevent unrest from spreading, and to send a message to other officers who may be harboring similar ideas.



First Contact (Campaign)

The adventurers are members of a “First Contact” team assigned to travel to the far corners of the fledgling Empire to assist in assimilating local Vilani worlds into the Rule of Man. Acting as front-line ambassadors, the party must use tact as well as tactics in an effort to show the outlying worlds the wisdom of joining the Empire as full partners. Encounters with established Vilani worlds and unknown minor races make this an exciting opportunity for a diplomatic campaign, with some action mixed in for flavor.

Second Imperium Period (-2100 to -1850)

During this period, the Rule of Man was attempting to establish a firm economic and cultural identity. Corporations added their independent agendas to the mix of strong and disparate political factions. The struggles for control of the throne of the Empire also helped lay the groundwork for its eventual collapse.

We Have Met the Enemy . . . and He Is Us (Adventure)

As Solomani and Vilani societies began to intermix and develop cultural and economic ties, it was inevitable that the result would be a joining of cultures and races that would eventually lead to a homogeneous empire. But extremist factions from both societies viewed this development as a threat to their “pure” civilization and made moves against those who would promote such mingling. The adventurers can be members of these factions, agents acting to neutralize the dangerous extremists, or neutral third parties caught in the middle of a struggle for racial supremacy.

Trade Wars (Campaign)

The corporations of the Rule of Man are young, vigorous, and competitive. In the outlying reaches of the Empire, where governmental authority is sometimes distant and corrupt, the corporations come to rule entire systems. The adventurers are members of the armed forces of a corporation, working to ensure that their trade position stays strong by whatever means necessary. Covert action, espionage, and outright warfare are possible, allowing for a wide range of adventure possibilities.

RAMSHACKLE EMPIRE PERIOD (-1849 TO -1526)

The forces at work within the Empire finally overcome the authority of the Rule of Man. Local governments refuse to adhere to the orders of centralized institutions such as banks and courts, and rebellion flares. As local nobles struggle to maintain their authority, the Long Night looms ever closer, threatening to erase from the pages of time everything the Solomani and Vilani have accomplished.

Smash 'n Grab (Campaign)

Things are falling apart around the adventurers’ ears, and those with cunning and power are seizing entire worlds. The adventurers attempt to grab their own corner of the Empire in which to ride out the Long Night, but the locals and their competitors will not go quietly.

Alternatively, they could be defenders of the weak, trying to preserve the independence of a world or group of worlds, or locals fighting for their homes.

The Time Ships (Campaign)

The Imperium is collapsing, sinking under the weight of revolution, secession, and economic collapse. The adventurers are assigned to assist with the last act of the dying Empire – gather as much information, research, art, etc., as possible from all corners of the Empire and deposit them in secret caches for retrieval should a civilization ever rise again. If not, these scattered storehouses will one day allow future researchers to piece together the glory of the greatest Human empire ever known. There will be many hazards along the way, from hostile “emperors” to pirates and even competing agents working for their own ends.

The Haunted Imperium

by Kurt Brown

Published October 31, 2000

SUPERSTITIONS AND STARSHIPS

With dozens of species, hundreds of civilizations, and thousands of years of history, the Third Imperium rules the stars and planets as no other civilization has since the time of the Ancients. While science and technology rule the stars, the superstitions and customs of the individuals who make up the diverse whole still permeate the fabric of society.

Almost every culture in known space has a heritage of worshiping unseen forces known variously as spirits, ancestors, gods, etc. In more primitive times, this worship included a belief in an insubstantial motive force possessed by all living beings known as a “soul.” This mysterious energy was said to contain the actual qualities of the individual, such as the personality. The soul was actually the individual, not the physical body or “container” that housed it.

This belief in the nature of consciousness led many cultures to theorize that, after death, the soul would depart the body for an “afterlife” – an existence beyond the physical world where the soul would carry on much as it had in life. Although the exact nature of this afterlife varies from culture to culture, it is another near-universal constant.

Along with a belief in a soul and an afterlife, many professed the belief that the soul of a deceased individual could, in some manner, maintain a presence in the physical world. Known by various cultures as ghosts, *min-ju*, *ilyarowi*, and hundreds of other names, these spirits are said to haunt the material world, seeking revenge, understanding, peace, or other powerful desires that keep the spirit from “moving on” to their afterlife. Other tales are of beings who died “before their time” or in a violent manner but continue to “live” in the material world because they cannot accept their own death.

Despite the fact that the Imperium today enjoys a level of sophistication and advancement unseen in millennia, the superstitious nature of her citizens cannot be denied. Along with certain modernized rituals such as “christening” new starships with alcohol (an offering to the gods to protect the vessel) and dimming the lights on-board before entering jump (an ancient technical necessity that has become a permanent piece of interstellar superstition), a belief in ghosts and hauntings persists on many worlds.

There are literally hundreds of thousands of documented examples of hauntings spread throughout the Imperium and her neighbors. Cataloging these modern myths is an ongoing

process for hundreds of “Supernaturalists” who make their way across known space, visiting the busiest cities and the most out-of-the-way worlds of the Imperium. These researchers, usually individuals operating on their own or in small groups, tend to be seen as eccentric at best and charlatans at worst. But despite the fact that they are generally looked down upon, their investigations have turned up some surprising results.

The most provocative finding to date seems to be the relationship between haunted locations and psionic forces. Sensitive individuals have, on many occasions, been able to “feel” what they claim are spirits and other entities that exist beyond the realm of normal physical matter. Despite scattered reports of actual contact with these entities, no major government is willing to officially recognize or investigate these phenomena. Some universities have departments (generally small and underfunded) devoted to research into other esoteric matters, such as jump-space monsters, unidentified craft “visiting” Imperial space, and other subjects on the fringe – or beyond – of modern thinking.

HAUNTED HISTORY

Stories of ghosts pervade the Imperium – no world is immune from the disembodied souls of Emperors, soldiers, lovers, or even lost starships. New or rediscovered hauntings emerge faster than they can be recorded by the handful of investigators who devote themselves to such tasks. Here are a few of the more interesting tales of the Haunted Imperium.

FAMILY QUARTERS, THE IMPERIAL PALACE AT CAPITAL

The Imperial Palace at Capital has been the seat of Imperial power for over 1,000 years. The splendor of the Imperial Court is unmatched in time or space, a grand testament to the power and wealth of the Third Imperium. The palace has been the scene of the greatest triumphs and most devastating tragedies of the Imperial families. While it is rumored to be the most haunted structure in the Imperium, occupied by restless spirits of assassinated Emperors and long-dead lovers, the tragedy that seems to be played out in the family quarters is one of the most well-known.

One of the larger suites in the family quarters, known as the Amber Room, is reserved for guests of the Imperial family who are visiting Capital. While it is in use almost

every day of the year by VIPs and their families, it is on those rare nights when the room is not occupied that the ghosts of an unidentified man and a young woman begin their eerie performance.

Witnesses report that shortly after midnight, indistinct voices can be heard coming from the Amber Room – voices raised in anger. As the minutes pass, the argument grows more violent – sounds of furniture being overturned can sometimes be heard echoing down the halls. People who have gone to investigate the disturbance report that, upon opening the doors to the Amber Room, a tall, well-dressed man with indistinct features is in the middle of the floor, choking a young woman as she struggles for her life. The room is said to be unnaturally cold, and chairs in the room are overturned as though from a violent struggle. As soon as the investigators move to interfere, the spectral figures vanish. At times, when the room is occupied, lodgers report mysterious drafts around midnight. There have been no reports of overturned furniture or sounds of a struggle in the room while it is occupied, however.

Researchers into this incident have not yet identified the man or woman in the haunting, although theories abound. Possible suspects include Admiral Dennis Van Der Hoost, a distant cousin of Emperor Martin V, or possibly Prince Fedirah hault-Ipsoran. Fedirah is thought by many to have killed his sister in order to protect his succession to the Iridium Throne – a succession that never took place, as he himself was killed in a “hunting accident” several years before his father passed away. Reports of the style of dress worn by the ghostly couple indicate the event took place between 350 and 500, which seems to rule out Fedirah, but investigations into this and other hauntings in and around the Palace continue. While these investigations are something of a parlor game among the ladies of the court, none of them are officially sanctioned by the Imperial Historical Society.

Despite the fact that who or what transpired in the Amber Room all those years ago may never be known, the mysterious pair still sends a warning echoing up the corridors

of time – beware of those who crave power, for they will say or do anything, to anyone, to secure their place in history.

FORWARD MAGAZINE, INS LINTHICUM

The INS *Linthicum*, a *Gilgamesh*-class missile cruiser, has a long and distinguished history. The *Linthicum* served in the Fourth and Fifth Frontier Wars, engaging and destroying no less than 24 Zhodani vessels and serving as an effective and feared picket ship during the interregnum. While under the command of Captain Hrothgar Wilsharana at the Battle of Rhylanor (1107), the *Linthicum* singlehandedly managed to destroy four Zhodani transports and their escorts, ramming the last ship when her missile stores were depleted. After the Fifth Frontier War ended, the *Linthicum* was decommissioned and kept in a distant orbit around Rhylanor as a member of the orbital monument known as the War Memorial Fleet, a fitting honor for a ship that had served the Imperium so well.

The damage to the *Linthicum* after her last action was extensive – the entire forward section of the ship was badly mangled from ramming the Zhodani transport. Repairs were made to the vessel, and the bodies of the sailors who perished as the forward spaces collapsed were recovered and given a proper burial. But according to visitors to the *Linthicum*, those sailors still man their posts in the forward magazine of the ship.

Caretakers of the *Linthicum* have, for years, reported hearing the sounds of hatches slamming shut in distant parts of the ship where no one was supposed to be stationed. During quiet periods when no tourists are aboard, there have been reports of klaxons sounding on their own and faint voices often echo through the forward magazine. On several occasions (especially on the anniversary of the ramming of the Zhodani vessel), the hatchway leading to the forward magazine has become stuck firmly closed while piteous wailing is said to reverberate from behind the dogged hatch.



While most investigators attribute these stories to the overactive imaginations of superstitious sailors, there is one intriguing piece of evidence. While touring the *Linthicum* in 1118, a retired sailor took a photograph of the magazine space that appears to show a woman, dressed in a naval uniform, manning the forward fire-control station. The quality of the photo is good, but the fire control station is almost 50 meters from the actual focal point of the picture, and the lighting was not optimal. While skeptics claim the ghostly sailor is just a “trick of light and shadow,” researchers point to this photo as proof that the men and women of the *Linthicum* remain true to their oaths to remain at their posts no matter the cost.

COUNTER-LUNAR LAGRANGE POINT (L-3), EARTH

Naval battles invariably lead to the destruction of dozens of ships and the deaths of thousands of sailors, marines, and soldiers. Stories abound of places where the energies unleashed in battle, both supernatural and manmade, have been impressed upon the fabric of space itself. Most would shrug off these reports as the silly superstition of sailors or as stories designed to frighten new recruits. Veteran sailors, however, never smile when they tell the tales of “ghost space.”

The most recent war between the Imperium and the Solomani resulted in the capture of Earth, the Solomani ancestral homeworld, by the Imperium. Since that time, the Imperium has maintained Earth as a vital and heavily defended military outpost to keep the frontier of the Solomani Sphere under control. Capturing Earth, however, was not an easy task. Some people claim that the war still rages at LaGrange Point 3, trailing Earth in its orbit around Sol.

The Solomani had fortified the LaGrange Points (locations of orbital stability in a two-body system, where objects placed in orbit will remain “stationary” with respect to the more massive bodies) in preparation for the expected invasion by Imperial forces. The L-points housed incredibly powerful “floating fortresses,” repair and rearmament facilities for ships, and important command and control relays that enabled the entire Solar System to be controlled from any of several locations – a tactic employed to ensure that no single strike could cripple the defense of Earth.

L-3 was designated as a secondary target of the approaching Imperial fleet. Military planners felt that its location on the opposite side of Earth from Luna meant that it would be relatively lightly defended as compared to other L-



points. The plan of battle called for a smaller detachment, known as Task Force 83 (consisting of light cruisers, destroyers, and escorts), to take out the Solomani facilities at L-3.

Unknown to the Imperial fleet, L-3 was the major orbital supply depot for the “last line of defense” of Earth, the Solomani Third Fleet. Several asteroid monitors had been placed in the L-3 space, allowing large, heavily defended repair and refit facilities to be constructed. It was there that the Third Fleet based the majority of its ships, and there that the small Imperial Task Force would meet its doom.

Jumping in-system close to Earth, the Imperial fleet began its long fight down the gravity well toward its targets. Solomani vessels rose to meet them, and the entire system sparked and flared with the fury of ship-to-ship combat. As the battle raged, Task Force 83 approached L-3. What they saw on their scanners chilled their blood – the Solomani Third Fleet, in full force, rising to meet them. Task Force 83 was only minutes from utter destruction.

More powerful elements of the invasion fleet began to move to meet the unexpected threat, but they would arrive too late. The Third Fleet shattered Task Force 83 in less than half an hour, one of the most costly engagements in Imperial Navy history and one mourned to this day. The eventual success of the invasion helped blunt the edge of such a loss, but several senior officers resigned or were decommissioned as a result of the debacle.

The facilities at L-3 have been rebuilt since the War, and are used by the Imperials much as they were by the

Solomani. Old Navy hands say that when the alignment of Earth, Sol, and Luna is just right, you can still see Task Force 83 struggling for survival in the dusty gap between the Earth and L-3. Merchants and others have periodically reported mysterious vessels that disappear when fighters or system defense boats are scrambled. Some think these may be radically stealthy Solomani spy ships, but the sailors of the occupying fleet know better. They are the ships of the 83rd, reminding them that pride goes before the fall, even in the depths of space.

THE SPINWARD MAIN

One of the busiest mercantile corridors in the Imperium, the Spinward Main annually carries tens of thousands of starships as they ply the spacelanes carrying gigatons of cargo and millions of passengers. With such a large number of vessels, passengers, and crews from every corner of known space, the number of ghostly sightings in this region is higher than anywhere else in the Spinward Marches.

Some of the “hauntings” on the Spinward Main have assumed the status of legends, with variations of these stories taking place in many different locations around known space. One of the most famous is the “Homesick Soldier (Sailor/Marine/Scout).” This story actually dates back thousands of years, and most sentient cultures seem to have similar legends. This similarity has led psychologists and sociologists to speculate that it may have some deep-seated significance from the “collective subconscious” of civilized species.

The story is always the same – a forlorn traveler, obviously down on his luck, approaches the captain of a vessel asking for passage to his homeworld. He is recently discharged from the service, but has had a run of bad luck that has left him broke and far from home. He offers his services aboard the vessel for passage home. Kindhearted ship’s masters often take in these honest, hardworking people, who live up to their end of the bargain by cleaning decks, helping cook meals, working in the cargo hold, or whatever tasks may need doing. They tend to be reluctant to talk about their families but are not unsociable.

Once the vessel reaches the homeworld, however, the crew finds that their passenger has vanished without a trace from their sealed vessel while still in orbit. Captains who have followed up with relatives on-world almost invariably discover that the mysterious passenger died years before in a war or accident. Legend has it that the kindness of the captain and his crew is sometimes paid off in the form of good luck in finding or selling valuable cargo at their destination, an inducement that many penniless corporeal travelers have used to their advantage on the Main.

Another legend of the Spinward Main is that of the IISS *Cavalier*, a vessel whose disappearance in 375 is said to have been the result of the greed of her captain. The *Cavalier*, a vessel taking part in the First Survey, was said to have discovered a minor race (now lost to history) that numbered only in the hundreds, living on a world that would one day be a part of the Main. These beings worshiped the visitors from the sky, offering the crew of the *Cavalier* great gifts of precious metal,

jewels, and, more important, a source of nearly pure lanthanum that could make the crew rich beyond their dreams.

The captain, an avaricious man, knew that once word was received about this new and incredibly rich source of the strategic material, the Imperial government would lay claim to the world and the natives would, in all probability, receive special protected status. The crew of the *Cavalier* would receive the usual bonus for discovering such a rich planet, but it would pale in comparison to what they could claim if the world was uninhabited.

The captain and crew of the *Cavalier* decided to eliminate the native population, eradicate the evidence of their existence (not difficult, since the small enclave occupied a fairly inhospitable region), and claim the world for themselves. The natives, trusting and naive, accepted the friendly overtures of the scouts and agreed to share with them the secret of their lanthanum. The captain and crew of the *Cavalier* eagerly noted the location of the rich vein, and then began the methodical process of eliminating the natives.

Legend says that before their deaths, the few remaining natives laid a curse on the *Cavalier* and her crew, vowing that they would never see a safe port again. Supposedly, the crew loaded as much lanthanum as the *Cavalier* could carry, disguised the vein of metal, and left the world after effectively erasing any evidence of the previous inhabitants. The *Cavalier* made for the jump point, her crew drunk on alcohol and the heady taste of wealth.

What happened next is not known. All that can be determined for certain is that the *Cavalier* and her crew were listed as “missing – presumed lost” in 377, long after they failed to report in from their mapping mission to the region. The world that was the source of the lanthanum is lost in the mists of time, and no major finds that correspond to the legend have been reported to date.

Since that time, there have been numerous reports of ships encountering a long-outdated scout survey vessel at the fringe of numerous systems, or as a ghostly form skimming gas giants in empty systems. It is said that anyone who can raise the *Cavalier* on radio or speak to her crew will be given the secret of the world where trillions of credits of precious metal lies waiting to be unearthed. The ghost of the *Cavalier* serves to remind those who would let their greed rule their hearts that some treasures come with too high a price.

THERE WILL ALWAYS BE GHOSTS

No matter what personal beliefs the citizens of the Imperium may hold, the scientific validity of ghosts and other supernatural beings remains in doubt. No one can deny that people encounter (or firmly believe they encounter) strange, inexplicable sights in the course of their daily lives. These encounters, whatever they may be, add a tinge of mystery and excitement that all beings need to enjoy life to the utmost. Until such time as their existence can be proven or disproven, ghosts will continue to haunt the popular imagination of billions of sentients across known space.

The Sacnoth Dominate

by Hans Rancke-Madsen

Published July 25, 2000

Note: Tech levels are expressed in *CT/MT/TNE/T4* format. See p. GT107 for conversion to *GURPS Traveller* terms.

The Sacnoth Dominate was the first interstellar government formed by the Sword Worlds, some 13 centuries before the reign of Strepthon. Except for the Darrians, who were content to leave the Sword Worlders alone, they were the only interstellar civilization for many parsecs around; for all practical purposes, they had no foreign entanglements. Nevertheless, the Dominate was rife with internal tension and dissolved into internecine warfare in less than three generations.

HISTORY

EXILES FROM EARTH

In -420, the Old Earth Union was in the middle of a civil war. The *Sword*-class troop transport *Gram* had left Terra carrying 40,000 troops, part of an invasion force. The troops were a miscellany of units: the 8th Scandinavian Army Corps, a colonial regiment from Agidda, and various specialist units, including a mobile field surgery, an engineer regiment, and three German *Jäger* battalions.

The capital ships had pounded the defenses of Chernozem, the target world, into the ground and the troop transports were moving in to unload when a relief fleet jumped in and caught the invaders deep in the gravity well. Hopelessly outnumbered, the invaders tried to escape by jumping from within the jump limit, but most misjumped and were scattered or destroyed. Only the *Gram* and six lesser destroyers and escorts jumped true. On the way back to Terra, they met a courier ship and learned that their side had lost and they had been branded war criminals. Eluding the pursuing squadrons, they fled spinward, since that appeared to be where the patrols were weakest. On the way, they picked up several more ships, including the light cruiser *Robert the Bruce*.

After some discussion, it was agreed to form a council of the Navy COs and the top Army officers to decide policy. The Council decided to find a suitable planet and settle down. It also decided to keep the troops in low berths until the new home was reached.

The flotilla roamed the Magyar sector for months trying to find a new home, but the Council finally decided that, limited though interstellar traffic was at the time, eventually the Union would learn their new whereabouts and might decide to hunt them down. So they elected to leave the area of the former Rule of Man completely.

On Wu, the capital of one of the Magyar pocket empires, they made contact with an envoy of the Faoheirlyu, a small Aslan clan situated on the trailing edge of Hierate space. The Faoheirlyu were at the time vassals of the Wahtoi, who were in turn vassals of the Aroaye'i, who were then engaged in a serious clan war with a rival clan, the Khaotyarl. With the Wahtoi busy helping the Aroaye'i and thus unable to support their own vassals, a small, independent clan named the Roihtyo had seized the opportunity to encroach upon the holdings of the Faoheirlyu. The Gram Council decided to hire out their escorts as mercenaries in return for passage out of Human-dominated space.

The *Gram* itself was not involved in the fighting, and as the Faoheirlyu had little need of extra ground troops and could not afford to feed so many, the soldiers were left in low berth while the escorts fought a number of small skirmishes. They succeeded in warding off the Roihtyo until the Aroaye'i made peace with the Khaotyarl and the Wahtoi could turn their attention to helping the Faoheirlyu.

By helping their vassals at a time when the Wahtoi could not do so themselves, the exiles had imposed a debt of honor on the Wahtoi. As a reward, they were offered land in fief to the Wahtoiko. But the Council had seen enough of the Aslan way of life in their years of service to know that it would not suit them, so instead they asked for free passage to the other side of the Hierate.

The logistic and, especially, diplomatic problems involved in getting a fleet of barbarians across several hundred clan territories took years to work out, but with the help of the Aroaye'i, it was eventually accomplished. In the interim, the Gram Council had time to wake the troops in slow rotation and offer each of them the opportunity to leave. Fewer than 200 did so. In mid -404, the *Gram* and her escorts began their epic journey across the Aslan Hierate. Crossing the Great Rift alone took almost a year; diplomatic delays often forced them to stay in the same system for months, and on two occasions, they had to fight off raids by uncooperative clans. Nonetheless, in late -401, they arrived at the coreward edge of the trans-rift Hierate, which at the time lay somewhere around the border between Riftspan Reaches and Trojan Reach.

Fully cognizant of the Aslan attitude toward real estate, the Gram Council decided not to settle too close to the Hierate, instead making its way into the Spinward Marches before beginning the search for a new homeworld. Several likely worlds were found, but none seemed quite ideal, so the search continued until a decision was forced upon them.

In late -400, while jumping to Spinward Marches 1223, the crew and passengers of the *Gram* experienced severe jump-sickness, indicating a malfunction in the jump drive. While the engineers attempted to make repairs, the escorts visited the neighboring systems and surveyed the system's main planet. It proved to be a Terran-prime world with a thriving ecosystem fairly compatible with terrestrial life. The atmosphere was dense but breathable, and although most of the interior of the single large super-continent was desert, the coastlands and islands provided ample living space. In the end, it was agreed that the risk of jumping to a system with a better world was not worth it. So on Day 127 of the Year -399, the Council decided to colonize the world, which was named Gram after the ship. The sun was named Sigurd, and its companion, Sigmund.

THE EARLY DAYS

The survey found the Darrians, but the Council decided against any contact with them. Instead, mindful that it would be a long time before the industry to build new starships could be developed and wanting to preempt possession of the worlds between Gram and the closest world with surviving Darrians (Cunnonic), the escort ships were used to establish small, but hopefully viable, colonies on Joyeuse, Colada, Tizon, and Hrunting.

The Council decided that the ships and all the equipment they carried would be community property and that strong central planning of the economy was necessary to develop Gram. Lip service was paid to democracy and civil liberties, but in practice, Gram became a tight, repressive oligarchy. Maybe to justify the hardships, maybe because they genuinely believed in what they preached, the leadership developed an ideology whose basic tenet was the importance of colonizing the surrounding worlds and eventually grow into a strong interstellar power capable of protecting the Sword Worlds way of life against all comers.

Robert the Bruce was sent back through Aslan space in an attempt to establish contact with the families left behind and (if possible) to bring some of them back to Gram. Although the cruiser disappeared on its return journey from Earth and its fate is unknown, it did reach Earth first and, with the help of the Wahtoi, a tenuous connection was maintained for almost two centuries; a few small emigrant ships actually made the trip from time to time. The connection was broken some time around -200 when the Faoheirlyu rebelled against the Wahtoi and the obligation ceased to apply.

In -387, it was decided to limit the use of the escorts to training and one yearly visit to the four colonies. Despite this, the ships eventually had to be mothballed, one by one, as irreplaceable parts wore out. In the meantime, the population of Gram grew rapidly due to the skewed demographics of the settlers, who were mostly young people between the ages of 20 and 40.

The culture of Gram was shaped by the military outlook and the lopsided sex ratio of the settlers. The navy element had a male/female ratio of almost 1:1, but a number of them had settled on the four secondary worlds and the army troops had a male/female ratio of 4:1. It was therefore

decided to allow women to exempt themselves from dangerous jobs. This is the origin of the male-dominated society that evolved on the Sword Worlds. However, despite the great social pressure to do so, a sizable fraction of the women refused to avail themselves of this, thus establishing the easy acceptance of females in "male" jobs that is also a part of Sword Worlder culture.

The common language of the first generation was the Anglic of the Old Earth Union armed forces, but with almost 80% of the original settlers speaking Sagamaal, a variant of Icelandic (see Library Data), Anglic disappeared in less than a generation, replaced by a mixture of Sagamaal, other Nordic tongues, Germanic, and the Vilani of the Agidda troops.

LANGUAGE TABLES

Tables for generating words in Swordic were published in the *JTAS* article *Creating Language Tables*.

In -321, a group of emigrants from Earth made their way through Aslan space and settled on Caladbolg. One of the expedition leaders came from Denmark and knew of the Faoheirlyu pipeline through a grandfather, but the expedition was mostly composed of English speakers. Though many Sword Worlders subsequently moved to Caladbolg, the world has never fitted comfortably in the Sword Worlds culture.

GETTING BACK INTO SPACE

In -300, Gram had a population of over 400,000 and the four colonies had about 75,000 between them. Driven by their ideology, the Grames diverted a lot of resources to their space program.

In -298, they began refitting the old escorts and embarked on a program of colonizing the remaining worlds in the region. Eight years later, they built their first new jump-capable ship. For most of a generation, Gram sent off much of its population increase to settle Tyrving, Sacnoth, Hofud, Durendal, Dyrnwyn, and Excalibur. Strangely enough, Beater (at that time called Galatine) did not receive any permanent settlers, though a fuel station was constructed in the system and several surveys were made of the planet. It is generally believed that the Gram leadership was reserving the world for their personal use, but no explanation has ever been found in the records.

In -292, the Zhodani contacted Gram to begin trading with them, but the contact was tenuous and the trade never amounted to much.

In -265, an exploration ship from the Darrian world of Mire came to Tizon. The Sword Worlders, still wanting to be left alone, did not encourage trade or any other interaction, but the knowledge that a rival interstellar power was emerging in the neighboring subsector did cause Gram to divert resources from the settlement program toward building some military ships. At that time, Gram had a population of 600,000, the four "First Colonies" had 200,000 between them, and the six "New Colonies" had 400,000, of which the lion's share had gone to Sacnoth.

The period from -265 to -232 was a time of consolidation and retrenchment. Gram's economy was suffering under the tight central control and from disruption caused by a political movement for greater freedom. No new colonies were planted, but emigration from Gram to the most pleasant of the other settled worlds continued apace. In -232, when Sacnoth built its first starship, the total population of the Sword Worlds was 2,400,000, of which Gram had 800,000 and Sacnoth 500,000.

A new wave of colonization took place in the last three decades of the century. Narsil, Anduril, Orcrist, Sting, Biter, and Beater were all settled in this period. The names were not traditionally legendary or mythical; instead, they were all taken from the works of a popular 25th-century PI writer from Terra whose works had been carried on the *Gram* and had by then achieved legendary status on the Sword Worlds.

Three more planets were settled from -200 to -186: Morglay (Gungnir) and Haulteclere (Mjolnir) in the Sword Worlds subsector and Isenfang (Margesi) in Vilis subsector were all settled from Gram.

THE SACNOTH DOMINATE

From -232 to -187, Sacnoth's economy grew by leaps and bounds, overtaking Gram, to establish itself as the leading power of the region. After a short conflict from -187 to -186 (war seems too strong a word when the total forces involved on all sides were less powerful than an Imperial destroyer squadron), Sacnoth emerged as the head of the Sacnoth Dominate, the first interstellar government of the Sword Worlds.

The Dominate established formal diplomatic relations with the Darrians in -164, but the Sword Worlds remained aloof and there was no significant trade between the two realms. From -149 onward, survey expeditions were occasionally sent to the closest worlds, in Vilis, Lanth, Lunion, Glisten, and District 268 subsectors. Colonies and outposts were established on a number of worlds, including Bowman, Caliburn, Dainslaf (Saurus), Dragvendel (Tenalphi), Eriksen (Tarsus), Hoding (Dawnworld), Igliim (Steel), Lyusing (Asgard), Skofnung (Gunn), and Tanoose (Garda-Vilis).

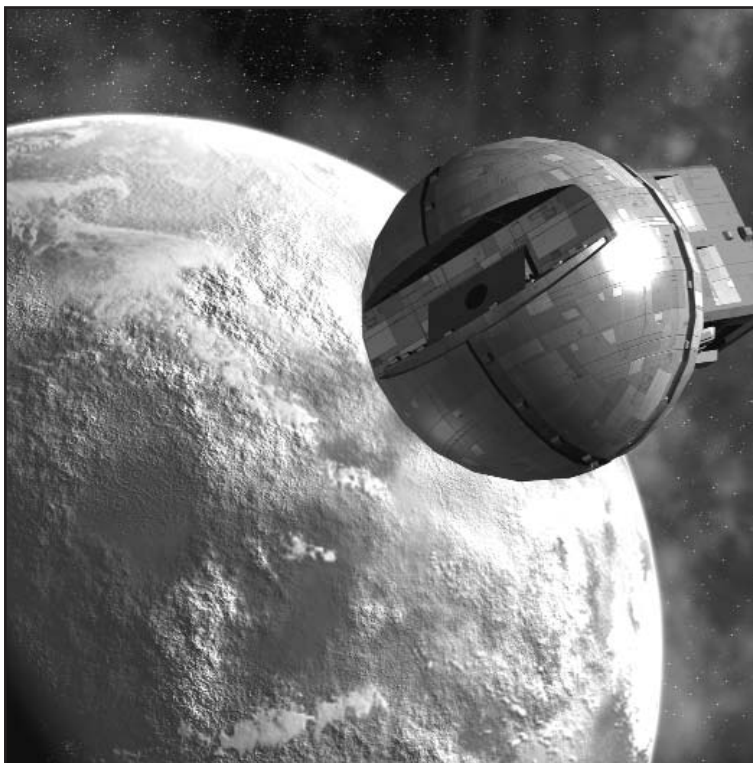
GOVERNMENT

The government of the Sacnoth Dominate is that of Sacnoth itself. Sacnoth's ruler, *Statskansleren* (the Chancellor of State), is also the head of the Dominate administration.

Sacnoth is supposedly a democracy, but in practice, it is not. The seats in the ruling body, *Stortinget* (the Great Council), have become associated with a score of great families who nominate candidates for election, and election has become automatic. So in reality, the great families appoint the members of the council as they see fit. The Great Council appoints the Chancellor of State from among the five most powerful families and he appoints the other ministers, usually in such a way that all the great families are satisfied.

The Sacnoth oligarchs balance the need to control their subject worlds with the desire to keep local resentment low by having hereditary local rulers govern in conjunction with appointed officials. Each system has a hereditary *hertug* (derived from a Scandinavian word for duke) who, with a governor-general appointed by the Dominate administration, shares the running of the planet.

Similarly, worlds with more than 200,000 inhabitants are divided into districts containing up to 200,000 subjects. Each district has a hereditary *greve* (from a Scandinavian word for count) who shares the running of the district with a governor appointed by the Dominate administration. The Dominate hopes that the hereditary noblemen will have a stake in preserving the status quo while at the same time being acceptable to their countrymen.



SACNOTH IN THE YEAR -105

Sacnoth (Spinward Marches 1325, A765637-C) is a rich, agricultural, non-industrial planet orbiting Leothric, an F9 V star with a mass of 1.14 and a stellar luminosity of 1.94, at a distance of 1.33 AU, near the inner edge of the life zone. It has an orbital period of 1.08 standard years. Orbital eccentricity is 0.05. An M8 D companion, Tharagavverug, is too far away to have much effect. It is a medium-sized planet with a diameter of 11,540 km and a molten core. The density is 6.1, the mass is 0.82, and the gravity is 1.0 G. The rotation period is 21h 31m 54s and the axial tilt is 28 degrees. The atmosphere is a standard oxygen-nitrogen mix with an undiscovered carcinogenic taint. Surface pressure is 1.07. Surface water covers 50% of the planet. The base temperature is 28 degrees C.

GURPS TRAVELLER

STATISTICS

Starport: Class V.

Diameter: 7,172 miles (11,540 km).

Atmosphere: Standard oxygen-nitrogen, believed to be untainted.

Surface Water: 50%.

Climate: Normal.

Population: 2,200,000.

Government: Oligarchy.

Control Rating: 2.

TL: 10.

No one realizes that Sacnoth's atmosphere is tainted by a carcinogenic substance (see p. T:BC70 for details). There are no short-term game effects; the GM may want to give people who have spent decades on Sacnoth a DM of -1 to aging rolls.

TECHNOLOGY

The original settlers of Gram left the Old Earth Union without a proper colonist's database of technological information. But between their military database and the personnel themselves, the exiles had much of the knowledge common at the time and were aware of a lot more. They made a concentrated effort to record everything they knew and everything they knew about, even if they didn't have the details. In the years to come, research was almost exclusively directed at recovering specific technologies. The Sword Worlds never developed a tradition for basic research, so little, if any, was ever done. Today, the Sword Worlds have a solid knowledge of TL12 minus a few discoveries like Fusion+; just as the Rule of Man and the Old Earth Union stayed at TL12 for many centuries, so the Sword Worlds show every sign of staying there for a long time to come.

Accordingly, the discovery TL of the Sword Worlds is 12- (lacking Fusion+ and a few other technologies) while the application TL varies according to the economy of the world.

CULTURE

The Sword Worlders of the Classic Era believe themselves to be faithful copies of their early ancestors. In reality, they are funhouse-mirror copies with exaggerated and distorted versions of the old customs. For instance, the Sword Worlders of the Sacnoth Dominate era have refined the differences between male and female roles, with risky occupations such as police, military, exploration, and rescue work considered the domain of males. Public office and business roles are just as much female occupations as male, and females manage their low-risk occupations with all the authority a male would possess. Nor is there much emphasis on differences in behavior. Both sexes are expected to be honorable, stoic, strong-willed, and able to perform their jobs competently and with a minimum of fuss. The biggest difference is that females can avoid physical danger without being thought cowards. (This does not extend to those in "male" jobs, of course.)

MARRIAGE CUSTOMS

The lopsided sex ratio of the first settlers caused polyandry to become widely accepted. As the sex ratio straightened out in the next generation, it became a status symbol to have more than one wife, resulting in widespread acceptance of polygamy, as well. Polygamy is more prevalent in the upper classes, monogamy in the middle classes, and polyandry in the lower classes, but all three forms of marriage can be found on all levels of society. The custom is strongest on Gram and weakest on the four "first colonies." Curiously enough, group marriages (multiple spouses of both sexes) are almost unknown on most of the Sword Worlds.

NAMING CONVENTIONS

Many Sword Worlders follow a custom adapted from an old Scandinavian one: the use of patro- or matronymics. They have a given name, a p/matronymic, and often a family name. A patronymic is formed by taking the name of the father and appending -sen or -son in the case of a son, and -datter or -dottir in the case of a daughter. A matronymic is formed the same way using the name of the mother. Thus, *Ingrid Rolfsdottir Ravn* translates as Ingrid, daughter of Rolf, of the family Ravn. Children of polyandrous families use matronymics, children of polygamous families use patronymics. Children of monogamous families may use either, although there is a pronounced tendency for males to use patronymics and females to use matronymics.

About 25% of the original settlers had non-Nordic names, so names of almost any ethnic origin – even some Vilani – can be found in the Sword Worlds. Some follow their appropriate naming conventions, but many have been adapted to the above-mentioned custom, leading to some quite unusual names (such as Carlos Pietrosson, Ryoko Tomoesdottir, and Hassan Abdulsson Tyrk.)

MINORITIES

In the early days of the Gram settlement, the former 8th Corps members tended to dominate political and cultural life, while leading ex-members of the other army units and the Navy tended to stick together to counteract this. The effect was much like that of members of an ethnic group sticking together in a new country. Members of the same "unit" hung out together and helped each other. "Navies" tended to marry navies, "geenies" (from the Engineer Regiment) to marry geenies, "surgies" (from the Mobile Field Surgery) to marry surgeries, etc. Small symbols were worn to indicate membership of a unit and, in some cases, distinctive apparel even evolved.

When the Sword Worlders began colonizing other worlds, this clannishness diminished but never quite disappeared. For instance, a disproportionate number of *Jägers* were among the first settlers of Sacnoth, and even today many Sword Worlders think of themselves as belonging to this or that unit.

SWORD WORLDS SUBSECTOR DATA

This listing provides basic information about the Sword Worlds in -105. The information is in the standard *Classic Traveller/MegaTraveller* format. See p. GT123 for conversion to *GURPS Traveller*.

A few worlds with minor settlements that lie outside the Sword Worlds subsector are not included.

Name	Location	UPP Code	Notes	PBG	AI
Hrunting	0921	C463567-9	Ni	413	Sd
Tizon	0922	B386567-9	Ag Ni	323	Sd
Narsil	0927	B564567-A	Ag Ni	224	Sd
J0130	0930	X623000-0	Ba	010	Un
Colada	1022	B364567-A	Ag Ni	311	Sd
Anduril	1026	B985567-A	Ag Ni	722	Sd
Haulteclere	1121	D530467-8	Ni Po De O:1223	222	Sd
Joyeuse	1123	C464567-A	Ag Ni	801	Sd
Orcrist	1126	D8A6366-A	Fl Lo Ni O:1325	501	Sd
J0310	1130	X250000-0	Ba	010	Un
Morglay	1221	D444467-8	Ni O:1223	232	Sd
Gram	1223	A885667-C	Ag Ni Ri	303	Sd
Excalibur	1225	C324567-8	Ni	202	Sd
Tyrfing	1324	C637567-8	Ni	101	Sd
Sacnoth	1325	A765637-C	Ag Ni Ri Cp	201	Sd
Caladbolg	1329	B365567-8	Ag Ni	310	Sd
Beater	1424	C685567-8	Ag Ni	410	Sd
Skofnung	1429	E344117-C	Lo Ni	902	Sd
Caliburn	1430	E000200-8	As Lo Ni	624	Sd
Dyrnwyn	1522	C958567-A	Ag Ni	501	Sd
Durendal	1523	C687567-8	Ag Ni	214	Sd
Hofud	1524	A666667-C	Ag Ni Ri	101	Sd
Sting	1525	B645567-A	Ag Ni	902	Sd
Biter	1526	C354567-8	Ag Ni	401	Sd
Igliim	1529	E655367-C	Lo Ni O:1325	424	Sd
J0806	1626	X529000-0	Ba	014	Un
J0807	1627	X201000-0	Ba	010	Un
J0808	1628	X568000-0	Ba	001	Un

Alignments: Sd = Sacnoth Dominate; Un = Uninhabited. O:XXXX indicates the world is controlled by another system, where XXXX is the location code of the controlling system.

CAMPAIGNING IN THE SACNOTH DOMINATE

The most significant factor when campaigning in the Sacnoth Dominate is that populations are small; total for all Sword Worlds is less than 10 million, with about half of that concentrated on just two worlds, Gram (2.5 million) and Sacnoth (2.2 million). The rest are spread out across a score or so of worlds. That makes for navies small enough that a GM can keep track of all ships. Also, any adventuring group is going to be able to affect the big picture much more readily than with populations in the billions.

The reverse of that coin is that starships are few and far between. Privately owned starships are very rare; most belong to governments and corporations. PCs should have a ship only on loan from a patron. If they eventually get a ship of their own, it will make them quite powerful.

SOLDIERS AND SPIES

The main source of conflict in the Sacnoth Dominate is the cold war between Gram and Sacnoth. An espionage/special ops campaign could be run with the PCs being heroic Gramish freedom fighters or heroic Sacnotian anti-terrorist fighters. Or a naval campaign could be run with the cold war heating toward the boiling point.

As with all campaigns set in historical periods – even if, as in this case, the history is fictional – there’s the possibility that players may know more than their characters. Experienced *Traveller* players may have heard of the Tyrfing Incident, the clash between Gramish and Sacnotian ships in orbit around Tyrfing that touched off the War of the First Rebellion in -104. That’s not necessarily a problem. In -105, many people believe a war to be imminent and inevitable. And no one has said just what date the Tyrfing Incident took place. If that isn’t good enough, a GM can always start the campaign a few years earlier and spring the Tyrfing Incident on his players ahead of time.

WORLD TAMERS

Other campaign possibilities are the scout/pioneer campaign and the post-Collapse campaign. The Sacnoth Dominate sponsored a number of new settlements in the latter half of the century. Either start the campaign with the initial setup, some decades before -104, and run a normal First Founder campaign, or start the campaign in -104 with the colony getting cut off from support and left to fend for itself by the war. Such colonies are too small to be bothered by the combatants, but they are completely on their own. In either case, the *TNE* rulebook *World Tamer’s Handbook* would be a great help, if you can get it. Suitable colony worlds include Lyusing (Asgard), Tanoose (Garda-Vilis), Dainslaf (Saurus), Igliim (Steel), and Dragvendel (Tenalphi).

ARTIFACT HUNTERS

The Darrians are a minor Human race native to Darrian/Darrian (Spinward Marches 0627). Eight hundred years ago, they had a marvelously high technology. But their sun flared and their civilization perished in the disaster. They’ve only been back in space for something over a century and their present technology is only about as high as that of the Sword Worlds. Their artifacts were extremely durable, however, and some have survived. The Old Darrians visited worlds for 20 parsecs around them and had exploration bases all around this part of space. Some of these bases have been found but others remain hidden. Such a base could yield vast treasure in advanced technology (mostly scout equipment rather than military, but much of it could be adapted to serve other needs).

TIMELINE

- 420: Sword Worlder ancestors leave Terra.
- 399: Settlement of Gram.
- 396: Joyeuse, Colada, Tizon, and Hrunting settled.
- 387: Use of escort ships limited to training and one yearly visit to the four colonies.
- 300: Population of Gram exceeds 400,000. Combined population of the four first colonies is about 75,000.
- 298: Gram achieves jump industry.
- 294 to -265: Tyrfing, Sacnoth, Hofud, Durendal, Dyrwyn, and Excalibur settled.
- 292: Zhodani traders visit Gram.
- 275: Mire rediscovers jump drive.
- 271: Mire reestablishes regular communications with Darrian.
- 271 to -238: Interstellar trade and communication with the Darrian colonies reestablished.
- 265: Exploration ship from Mire visits Tizon.
- 232: Sacnoth builds its first starship. Total population of Sword Worlds is 2,400,000, of which Gram has 800,000 and Sacnoth 500,000.
- 232 to -200: Narsil, Anduril, Orcrist, Sting, Biter, and Beater settled, mostly from Sacnoth.
- 200 to -186: Morglay (Gungnir), Haulteclere (Mjolnir), and Isenfang (Margesi) settled from Gram.
- 186: First interstellar government among Sword Worlds, the Sacnoth Dominate. It consists of all 20 worlds settled by this date.
- ca. -165: Trade between Zhodani and the Sword Worlds increases.
- 164: Formal diplomatic relationship between Dominate and Darrians established.
- 149: Sacnoth Dominate explores selected systems up to 10 parsecs away.
- 145: Bowman discovered and named by Sword Worlds expedition.
- 140: Extensive Sword Worlder survey of Bowman Belt begins. Dominate naval vessel surveys Tarsus, Pavabid, Trexalon, and Motmos.
- 140 to -104: Several follow-up expeditions to Tarsus and neighboring worlds undertaken by Sword Worlds.
- 133: Strike at Caliburn Belt. Interest in Bowman wanes.
- 120: Tanoose (Garda-Vilis) settled from Gram.
- 105: Igliim (Steel) settled from Caladbolg.
- 104: Dominate establishes oil-mining outpost on Tarsus. Tyrfing Incident touches off the War of the First Rebellion. All bases in District 268 abandoned.
- 102: Sacnoth Dominate breaks up as a result of the War of the First Rebellion. It is fractured into the Gram Confederation, the Sacnoth Confederacy, and the Hofud Assembly. These governments rapidly disintegrate, beginning a period of disorganized infighting, with no clear dominant government.

A very dangerous way to get such artifacts is by raiding Darrian worlds for them. All the Sword Worlds have a policy of leaving the Darrians, who outnumber the Sword Worlders almost 50 to 1, strictly alone, but the Sword Worlders are an individualistic lot and some private expeditions have been known to try.



LIBRARY DATA

Black Bull: Symbol of Sacnoth. Adopted in -198 in defiance of Gram, whose symbol is the Red Worm (q.v.).

Tanoose: A corruption of “Danuuz,” the name of the enchanted sword of the legendary Vilani folk-hero Maashdiikhe.

Igliim (“Steel”): Sword belonging to the legendary Vilani hero Daaluusinnagi the Defender.

Maashdiikhe: Legendary Vilani hero, the protagonist of a set of fireside folk tales. When his village was threatened by a demon, he procured a magic sword, Danuuz, and proceeded to defeat the demon.

Ormen Hin Lange (“The Long Worm”): 10,000-ton cruiser, flagship of the Gram Navy. Named after Olaf Trygvesson’s longship, and second of that name; the first was a 5,000-ton escort destroyed after a heroic battle against Sacnoth forces in -187.

Red Worm: Symbol of Gram. Derived from the crest of the 8th Scandinavian Army Corps. The lindworm is a mythical monster that lies on a bed of gold and can only be killed by a bull specially raised on a diet of milk and nuts.

Sagamaal (“Saga-tongue”): An artificial language based on the old Icelandic sagas created on Earth during the Cultural Roots Revival of the 10th century pre-Imperium; spoken as a second language by almost all Scandinavians in the 5th century PI.

Sword Worlders

by Robert Prior

Published August 29, 2000

The Sword Worlds Confederation is a minor state in the Spinward Marches. While technologically behind its neighbors, the Confederation's economic clout makes it a player that cannot be ignored.

EARLY HISTORY

The Sword Worlders are descendants of Solomani exiles who arrived in the subsector four centuries before Cleon I founded the Third Imperium. From the first settlement on Gram, colonies spread to over 20 worlds in several subsectors. First unified in the Sacnoth Dominate (-186 to -102), various governments have risen and fallen over the centuries.

POST-CONTACT HISTORY

Imperial traders first reached the Sword Worlds in the first century. For a while, there was increased trade with the Imperium, but trouble arose when the Imperium absorbed much of Vilis subsector – including some worlds with Sword Worlder populations – in 470. In response, the Sword Worlds joined the Outworld Coalition when it was formed in the early 500s.

The First Frontier War (589 to 604) saw the founding of the Second Dominate, the first truly unified confederation in centuries. The Sword Worlds invaded the Entropic Worlds in 593, whereupon the Darrians allied with the Imperium in 595. Long-standing Sword Worlds opposition to the Imperium dates from this period.*

After the Second Frontier War (615 to 620), the Imperium occupied Biter, Colada, Durendal, Dyrwyn, Gungnir, Hofud, Hrunting, Joyeuse, Margesi, Mjolnir, and Tizon for five years, further inflaming anti-Imperial sentiments.

In 698, the Second Dominate was overthrown by the Gram Coalition. When Terant 340, Torment, Trifuge, and Cunnonic were lost to the Darrian Confederation in the Darrian War (788), public outrage replaced the Gram Coalition with the Trilateral Alliance. A decentralized entente headed by Durendal, Narsil, and Sacnoth, the Alliance was weak and unwieldy, and broke apart in 848.

The current Sword Worlds Confederation was formed in 852 with Joyeuse as its capital. In 979, at the beginning of the Third Frontier War, a constitutional crisis split the confederation, with Joyeuse, Cunnonic, Tizon, Hrunting, Mjolnir, Gungnir, Colada, Gram, Narsil, Anduril, Orcrist, and Excalibur on one side and Sacnoth, Tyrfing, Beater, Dyrwyn, Durendal,

Hofud, Sting, Biter, and the four metal worlds on the other. In 986, the crisis was resolved when Gram seized control of the confederation and the capital was moved to Gram.

During the Fifth Frontier War (1105 to 1110), the Sword Worlds Confederation invaded the Imperium, attacking Choleosti, D'ganzio, Garda-Vilis, Lanth, Saurus, Tavonni, and Vilis. Despite valiant efforts, the technical superiority of the Imperial Navy was too much for GTL9 ships and the Sword Worlds fleets were stopped, then routed. By the end of 1109, the Confederation Navy was in full retreat, fighting desperately to protect its supply lines from jump-5 intruder squadrons. Defeating the Sword Worlds armies took longer and was only accomplished through prodigious use of orbital munitions, leaving the occupied worlds to rebuild leveled cities.

A NOTE ABOUT CANON

* Hans Rancke-Madsen, keeper of the Spinward Marches canon, says:

For many years, there have existed two mutually exclusive versions of which worlds were lost by the Darrians to the Sword Worlds during the First Frontier War, regained in the Darrian-Sword Worlds War of 788 and lost again in the Fourth Frontier War. According to "Contact: The Sword Worlds" in *Journal of the Travellers' Aid Society* #18, *Library Data (N-Z)*, *Imperial Encyclopedia*, and, most recently, *GURPS Traveller*, it is Terant 340, Torment, Trifuge, and Cunnonic. But according to *Darrians*, *The Spinward Marches Campaign*, *The Regency Sourcebook*, and *Behind the Claw*, it is the Entropic Worlds. The maps in *The Spinward Marches Campaign* also show Torment as part of the group. Also, the text in *The Spinward Marches Campaign* claims Entrope, Winston, and Anselhome are occupied by the Sword Worlds from the end of the Third Frontier War even though the maps show that it is from the end of the Fourth. And to make the confusion complete, *The Spinward Marches* shows the three Entropic worlds as belonging to the Darrians in 1105 and the UWP listings of *SMC* and *RS* show them as belonging to the Sword Worlds in 1110 and 1117 – that is, the reverse of what the maps and the text show.

There is no possible way to reconcile these differences. I suggest that the Entropic Worlds and Torment were the four worlds lost by the Darrians in 593 and regained in 788. The Entropic Worlds (without Torment) were lost again during the Fourth Frontier War.

By the time the Armistice was signed, the Imperium had occupied Beater, Biter, Bronze, Durendal, Hofud, Iron, Mithril, Steel, and Sting. Rather than free them, the Imperium created the Border Worlds: a “protectorate” administered by the Border Office and guarded by the Imperial Navy. The Confederation Navy had few jump-capable warships left, so there was little the exhausted Confederation could do. Matters were exacerbated when Sacnoth and Tyrffing left the Confederation to join the Border Worlds.

By all logic, the Sword Worlds should have reached an accommodation with the Imperium long ago. No other small state has been so belligerent for so long with so little reaction. Why weren't they conquered long ago?

Sword Worlders claim the Imperium is afraid of the valor of true soldiers unafraid to die for their hearth fires. Imperial magnates profess that the cost of holding a few squabbling worlds isn't worth the returns. Both excuses ring hollow: the Confederation Armed Forces have never won a war against the Imperium, while the Sword Worlds' population makes them one of the largest economies in the Spinward Marches.

Do the Darrians want the Sword Worlds as a barrier against the Imperium? Does the Imperium preserve the Sword Worlds to keep the Darrians occupied? Are the rumors of Zhodani involvement true, and is the continued existence of the Sword Worlds part of some Zhodani plan? And what of the Hivers, what is their involvement, if any?

POPULAR PERCEPTIONS

How does the average Imperial citizen view the Sword Worlds?

“Touchy, dour, humorless, squabbling automatons, combining the worst features of Aslan, K'kree, and Vargr. Is this a true picture of the Sword Worlders? Not at all. They're also as traditional as the Vilani . . .”

– Ser Guilliame Vindamar, Imperial comedian

How do the Sword Worlders view themselves?

“Like most slanders, there's a grain of truth in the average Imperial picture of the Sword Worlds. But it's a very small grain inside a very large slander.

“Touchy? The Sword Worlds are smaller than the Imperium, and people are more closely connected. Reputations are more meaningful, and more closely guarded, when they are known to a wider portion of the population. While the average Imperial is inclined to shrug off slurs, believing that no one of any importance will hear them, the average Sword Worlder will take issue, knowing that word might easily reach his superiors.

“Dour? Sword Worlders value both words and silence. When two Imperial friends meet, they feel compelled to talk, even if they have nothing to say. Two Sword Worlders will give their news, then sit in companionable silence, enjoying each other's company.

“Humorless? This is a racist slur – Sword Worlders possess a fine ironic sense of humor, as illustrated by this hilarious joke:

“Two soldiers, Ragnar and Sigmar, are pinned down by a Darrian sniper. After a few minutes of quiet, Ragnar slowly creeps around the corner. ‘Is the sniper still there?’ whispers Sigmar. ‘I don't know,’ gasps Ragnar with his dying breath, ‘but his laser is.’

“Squabbling? Sword Worlds history has gone through its turbulent periods, but the Sword Worlds are no more fractious than

IMPERIAL RELATIONS

“Let us consider tonight the essentially static economic structure of the Imperium. While frontier worlds may occasionally be invaded, the Imperium as a whole has not been seriously threatened for centuries. Mercantilist policies allow faceless plutocrats beholden to no one – I'm referring, of course, to the megacorporations – to use Imperial troops for private gain . . .

“You, there. Yes, you in the blue. You don't believe me? Have you read the Sylean Scout Service Protocols of Contact? Then don't parade your ignorance in public!

“As I was saying, the megacorporations use Imperial troops to enforce an economic order that stifles meaningful competition. When was the last time a new . . .

“What do you mean, canceled? I have a contract . . . Let go of that! Unhand me, you dolt!”

– Dokter Snorri Freyðasson,

University of Regina Invitational Lecturer,

just before deportation for “reasons of state”

“The Sword Worlds' relationship with the Imperium is governed by mutual distrust. Early fears about being encircled and absorbed by the larger empire have been borne out. With half the Confederation an occupied puppet state and District 268 being integrated with the Imperium, Sword Worlders see the noose slowly tightening.

“Yet doomed battles against impossible odds are part of our zeitgeist. Few Imperial diplomats, influenced by the Vilani economic view of war, understand that to a Sword Worlder, it is not failure that is shameful, but failing to try.”

– Thingman Leif Sturmbairn

the Third Imperium. The difference is that the Imperium's internal conflicts are, by-and-large, played out in the economic arena, while the Sword Worlds' disagreements are political, and thus considered more newsworthy.

“Automatons? More determined and purposeful, certainly, but the average Sword Worlder is less of an automaton than the average Imperial. Our citizens are raised to consider the common good before their personal fortunes, our greatest heroes are those who sacrificed themselves for the community – but this does not make us mindless automatons. Say, rather, that we choose to be selfless, to deny ourselves comforts for our grandchildren's sakes.

“Traditional? Yes, we are. Centuries before the Imperium was founded, our ancestors traveled across uncharted space to settle these worlds. Since then, we have maintained a continuous civilization – expanding by colonization, not conquest, protecting ourselves against military, economic, and technological encroachments. Who wouldn't be proud of such a tradition?”

– Thingman Leif Sturmbairn



SWORD WORLDS CULTURE

*Years make prudent
who suffers long.*

*Woe is close-clinging;
wisdom for man.
Woman tends hearth fire;
farmer tills field.
All must have courage;
king in the hall
Army to gather.
Band of the brave*

*Death matters not.
Good name is all.*

– *Volksaga (ca. -300)*

As descendants of Solomani colonists, the Sword Worlders have no unusual physical features. Their culture, however, is sufficiently different from the Imperial norm to warrant explanation.

The truth, as always, lies between these two perceptions. Some Sword Worlders, especially the more insecure ones, really do verge on the Imperial stereotype. Most, however, are simply people who live in a quieter, more measured society than the Imperium.

How do Sword Worlders view the Imperium?

“Ah, the Imperium. At first glance, it looks not unlike our Confederation: a decentralized state run by men – the nobility – for whom honor is worth fighting. But upon closer examination, you can easily see the truth behind this convenient facade.

“First let’s examine its power structure. Who really runs the Imperium? ‘The Emperor,’ says my little son, but he’s young enough to believe that Out-Worlders tell the truth. No, look beneath the trappings of ceremony to the economy. Who controls the Imperial economy? Yes, the megacorporations. And who controls the megacorporations? That’s right: we don’t know. Decisions affecting billions of people are made by faceless men who disavow all responsibility when they are wrong. Investors’ money finances genocide, while the decision-makers hide behind anonymous financial trusts and disclaim all responsibility.

“That is the true danger from the Imperium: power without responsibility. For over a thousand years, we’ve preserved our society, our standards, our morals against its faceless power brokers. And make no mistake, we are still locked in battle: a battle of trade and tariffs, profits and proxies, rather than beams and battleships, bravery and bullets, but a battle nonetheless. Our future is in your hands now. Keep faith.”

– *Oberst Hans Berrison, retirement address*

The most obvious difference is that Sword Worlds culture assigns different roles to the two sexes: males are active and aggressive, females are passive and accepting. The roots of this lie in the days of the Sacnoth Dominate (see pp. 34-39), but these traits are still very much in evidence today.

Men – and those women who choose not to follow a traditional role – take all the risks and make all the important decisions. Sword Worlders view risk and decision as two sides of the same coin: responsibility. Authority – accepting responsibility for a course of action – grows from sharing the risks of that action. Leadership is usually exercised from the front lines, not only in military fields but in all walks of life – a CEO will invest his life savings in the company he runs; an engineer will accompany the pilot on the first manned test flight; an architect will live in the buildings he designs.

It would be a mistake, however, to equate risk-acceptance with passive courage. A male Sword Worlder feels no compunction about taking action to lessen the danger – a police squad storming a room will wear body armor; a military commander will maintain a reserve. This is good sense, not cowardice. Cowardice is accepting a task and then refusing it in the face of danger.

Passive courage – fatalistically enduring whatever life brings – is a female virtue, not a male virtue. Sword Worlds men are courageous, willing to endure pain, hardship, and death for a goal that they have accepted, but Sword Worlds women are better able to withstand unknown, unavoidable, random dangers.

Traditional females are expected to remain in the background, looking after household and family. They work at home and in the local community, both places that are

protected by men. While not restricted to child-rearing, the jobs considered “suitable” for women are limited to teaching, gardening, serving in small shops (owned by a male relative), and similar risk-free occupations.

Women who wish to eschew a traditional role may do so. They dress “as men” and can enter male careers, where they are expected to adopt male attitudes and mannerisms. Although there is no formal barrier to advancement, it is unusual to find women in the upper ranks of an organization. Sword Worlds society has no way of accommodating working mothers, because pregnancy and motherhood are female activities, so any woman who wants children must sooner or later give up her career and revert to a female role. There is a lot of social pressure to have a family – a remnant of the early emphasis on colonization – and many organizations see little point in training and promoting women who will “retire” sooner than their male counterparts.

Sword Worlders are frequently characterized as proud. This is true on two levels. First, a Sword Worlder takes pride in his ancestors, who colonized a subsector with virtually no resources. Second, a Sword Worlder takes pride in his accomplishments.

Sword Worlds society is more formal than the Imperium, although not nearly as formal as the Aslan Hierate. There are definite rules governing behavior. Because responsibility is such a large part of Sword Worlds culture, many of these rules deal with claiming, granting, and accepting responsibility and authority. While an experienced Sword Worlder knows that outsiders won’t follow these rules, they are so deeply ingrained that he still reacts to a violation as a personal challenge. Inexperienced Sword Worlders usually assume that a challenge is a deliberate slight – which it would be from a fellow Sword Worlder. (To see the effect of violating behavioral rules, try standing 12” away from someone when you talk to them. Most people will back up, or if that is impossible, become aggressive. “Interpersonal distance” is a behavioral rule that varies between cultures.)

Paradoxically, formal rules make Sword Worlders much more relaxed when among themselves, because everyone knows how to behave and what a particular action means. Members of an informal society which lacks clearly articulated rules are forever “on edge” and guessing. Sword Worlds neighborhoods are integrated: Families tend to remain in the same neighborhood and socialize with their neighbors. A Thingman may live beside an old school friend who became a janitor; both men can relax together and remain friends – social rules may limit the subjects of their conversations, but no rule prohibits their friendship. Sword Worlders do not understand the Imperial notion that socializing with poorer people is somehow “beneath” the wealthy.

Sword Worlds society is often described as militaristic, and in many ways this is true. Defending his community is the duty of every Sword Worlds man, and membership in regional self-defense units is almost universal. Most men also enlist in the regular armed forces before commencing their adult occupations. Yet the “militaristic” label applies even to civilian organizations. Personal responsibility is a part of the Sword Worlds psyche, and Sword Worlders feel uncomfortable when there is no one clearly personally

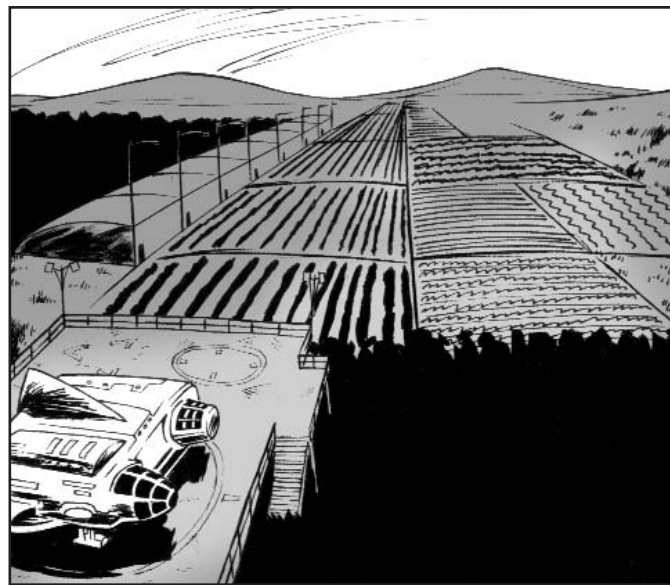
responsible for a decision. While “responsibility” in the Imperium frequently means “accepting the blame” without having any actual control, in the Sword Worlds, the responsible person *must* have the authority. Sword Worlds managers thus tend to be more autocratic than their Imperial counterparts, but they also willingly accept blame for failures as well as claim credit for successes.

GOVERNMENT

Despite recent setbacks in the Fifth Frontier War, the governmental structure of the Sword Worlds Confederation remains unaltered (though much reduced).

Individual worlds have nearly complete autonomy over local affairs, maintaining their own military forces and passing their own laws.

The Confederation Council governs interstellar affairs. Each world is represented by two Councilors. Gram has an extra Councilor, who leads the sessions and adjudicates disputes. The Council regulates interstellar trade, sets diplomatic policies, handles relations with other powers, and acts as an arena for resolving interworld disputes.



MILITARY

Every world in the Sword Worlds maintains its own military forces, equipped and supplied from its own factories. While this is economically inefficient, it does mean that an invader must conquer each world singly – the Confederation as a whole has no vulnerable manufacturing world.

The Confederation maintains a General Staff, to which officers are seconded for map exercises and the biannual Joint Maneuvers. During peacetime, planetary forces are under local command; during wartime, the General Staff is given strategic control. Planetary units are kept together as much as possible, the Staff realizing that tactical cohesion benefits from familiar chains of command.

Further details on the Sword Worlds military forces will follow in a later article.

THE CONFEDERATION PATROL

The Sword Worlds Confederation Patrol Service is often likened to a militarized version of the Imperial Scouts, but this is misleading. The Patrol acts as an interplanetary police and customs service within the Confederation, enforces trade restrictions between the worlds of the Confederation and outside, suppresses piracy, and adjudicates minor disputes between worlds.

The Patrol has three main duties: patrol, police, and port. Officers, especially younger ones, are assigned a wide selection of duties, both to train them in a variety of situations and to evaluate their suitability for command. Enlisted men may be shuffled around a bit at first, but usually concentrate on a particular duty.

Like Sword Worlds society, the Patrol is strongly hierarchical. There are definite differences between officers and enlisted men. The ideal officer is adaptable, capable of turning his hand to nearly anything; the model enlisted man is expert at his job but not necessarily skilled outside it. Unlike most military organizations, which have specialist branches, the Patrol is a single organization: specialties are a matter of experience and qualification rather than hierarchy.



This organizational structure has the odd effect that officers frequently do more “dirty work” than their men. If the visiting ambassador’s quarters must be cleaned and repaired, for example, the young Konstabel in charge of the repair detail may be the one cleaning the fresher, while trained enlisted Patrolmen repair the lighting panels and 3D viewer.

While most people think of the patrol duty first, it is port duty that requires the most men. Sword Worlds starports are not extraterritorial, unlike their Imperial counterparts; although they are run by the Confederation, they are built and owned by

the planet they serve. This arrangement can lead to some interesting legal friction, and Patrol officers assigned to port duty require good interpersonal skills, as well as legal advice.

Patrol duty is about what everyone thinks, but the reality is *very* different from holodramas. The bulk of the Patrol’s duties can be compared to the Coast Guard of contemporary maritime nations: long, boring cruises along assigned routes, inspecting routine shipping and enforcing customs regulations. Holodramas excepted, genuine piracy is rare in the Sword Worlds. Although planetary navies are better equipped to fight pirates, several nasty incidents related to interworld trade disputes led the Confederation Council to assign the neutral Patrol to that task, rather than more partisan planetary forces. A Patrol ship in hot pursuit has the authority to require assistance from planetary forces, but this is rarely used.

The most invisible duty of the patrol is policing. Individual worlds have their own police forces – sometimes more than one – but the Patrol has jurisdiction over interplanetary crimes. In most cases, it functions more as an information clearinghouse than a field force, collating and analyzing information supplied by planetary forces, and recommending actions. When it does take action, the Patrol usually collaborates with a planetary force: it simply doesn’t have the manpower to duplicate planetary organizations.

Senior Patrol officers also act as neutral adjudicators in minor disputes between worlds. This is only asked of Patrol officers with outstanding reputations for fairness.

<i>Officer Rank</i>	<i>CT/MT Rank</i>	<i>GURPS Rank</i>
<i>Konstabel</i>	O1	3
<i>Overhode</i>	O2	3
<i>Leutnant</i>	O3	4
<i>Overleutnant</i>	O4	5
<i>Kapiten</i>	O5	6
<i>Oberst</i>	O6	7

THE BORDER WORLDS

The Imperium’s creation of the Border Worlds was intended to split the Sword Worlds, allowing for gradual acceptance of the Imperium by integration with the Imperial economy, but this strategy may backfire. War profiteering by nameless functionaries at megacorporate head offices and “free” debates where Imperial Marines arrest dissenters have convinced many Border Worlders

that the Imperium cannot be trusted. The pressure is slowly mounting and rebellion is a very real possibility, even though the Imperium’s military and economic might is overwhelming.

The metal worlds – Bronze, Iron, Mithril, and Steel – were formerly under the administration of the Confederation government. While once reserved as resource worlds for the entire Confederation, current rumors claim that several Imperial megacorporations will soon be granted planetary exploitation rights. If this is true, the Border Office expects extended rioting or outright rebellion to follow the announcement.

Mazjaru

by David Thomas

Published May 23 and September 19, 2000

The Mazjaru (singular Mazjarā) are the best known K'kree subject race. They are ideal slaves, and acceptable personal servants, so they have spread widely across the Two Thousand Worlds.

On their home planet of Zjemu-ay ("earth" or "soil"), they evolved from omnivorous, fast-moving chaser-scavengers over a period of 300,000 of their Long Years (see *Timekeeping*). Despite being biologically omnivorous, they are culturally vegetarian.

PHYSIOLOGY

The Mazjaru are about 4' 6" tall and have a pear-shaped silhouette. They are homeothermic, oviparous bipeds with strong legs, short arms, and blunt, toothy snouts. They have five-fingered hands with opposable thumbs, and thick, stubby tails. Their skin is covered with turquoise scales; each has a darker, feathery fringe, pointing away from the snout. A line of substantial, more feather-like scales runs down the spine from between the eyes to the tip of the tail.

This crest is yellow, cream, or white. It usually lies flat, but it can stand on end, displaying a purple and violet peacock-like pattern. The K'kree make the Mazjaru pluck their skulls bare, as a token of submission.

Aside from when the female is ovulating, there is no external difference between the two sexes. Nearing ovulation, hormone levels rise and the female's crest becomes full, stands erect, and becomes orange along its base.

Each short year, a female Mazjarā can lay a single egg, which hatches in a month. The chick needs to be fed on mashed, predigested food for a short year. Physical maturity takes a long year, and adult life lasts for about two more. But for K'kree intervention, old age could last for a further long year, but is usually cut short.



PSYCHOLOGY

The main Mazjaru trait is fatalism. Even the ones who believe that they can free themselves accept that their remote descendants are the only likely beneficiaries. Tied to this are the determination to make the best of what is available, and a desire to ensure their children's survival.

Both of these attitudes simply lead to displacement behaviors, which tend to distract the Mazjaru from the conscious realization that their lives are really dismal and stressful. This anxiety often surfaces either as a profound clinical depression or as an explosion into full-blown mania.

TIMEKEEPING

The Mazjaru count time in terms of *lemla* ("minutes," actually 49 seconds). 81 *lemla* make an *elyey* ("hour," actually 66.15 minutes), and 18 *elyey* make an *ælum* ("day"), with day and night having nine *elyey* each. They have an *ina-yei* (month) of 31 *ælum*.

As their home system is binary, they have two years, the *Wra-Rriyei* (Short Year, 0.64 standard Imperial years) of 286 *ælum*, and the *Neurr-Rriyei* (Long Year) of 23.44 *Wra-Rriyei* (approximately 15 standard Imperial years).

The K'kree do not encourage the Mazjaru to subdivide the *lemla*.

HISTORY

The only known Mazjaru civilization developed in Zjemu-ay's southern subtropical zone, in the Ashen Plain (a broad valley between two high plateaus). The valley runs southeast to northwest, and a Nile-sized river runs from the marsh-fringed, freshwater Perfume Sea to the brackish Dreaming Gulf.

To the Mazjaru, history is synonymous with "written chronicles." Theirs begins with their development

of temple-states around the salt coast, and ends with the arrival of 17 large thin disks in the sky above Dreaming Gulf. Between the two was a glorious time, with cities glittering in the night like the stars above them, all across the Ashen Plain. The first reliable accounts begin with a hill people, the *Gadmuru*.

THE EARLY CITIES

The *Gadmuru* seem to have left their hills due to population pressure. Some became the nomadic Mazjaru, who wandered the intermittent steppes of the Ashen Plain, planting seasonal crops to consume at each end of their migrations.

Others settled in the lagoons around the Dreaming Gulf. Here, with extreme ingenuity, they raised dry platforms to support both intensive agriculture and dense housing. These settlements grew both by following the rivers upstream and by irrigating the drier lands behind them.

Inevitably, the settled people were raided both by the Mazjaru and by their *Gadmuru* cousins. The warfare lasted 17 Long Years, complicated by intense, religiously motivated, inter-city rivalry: the settlements were at war with each other as much as they were with the nomads.

ZDAMUZH

One city, *Zdamuzh*, became the leader of the settled groups. This settlement stood on sandbars in an extensive lagoon, so it was impervious to land assault. It also monopolized overseas trade with primitive peoples along the Dreaming Gulf's coasts.

Zdamuzh managed its leadership role by discovering gunpowder. The Zdamuzh realized its potential very quickly (they were otherwise at TL0-1) and sent gunboats up the rivers. Their invention of the bayonet (an obvious extension of the blowpipe/spear combination of the Gadmuru) enabled them to field musketeers, supported by artillery and rockets. They inflicted crippling defeats on their enemies. The cities submitted to their rule, the Gadmuru and Mazjaru paid tribute.

The Zdamuzh copied all the other cities' records and talked to all their sages. They intended to prevent any rival from making a secret weapon, but began an age of discovery. Inside a Long Year, Zdamuzh had boats and wagons driven by steam turbines (similar to the toy described by Hero of Alexandria).

THE K'KREE

Zdamuzh was at the height of its power, a benign empire stretching across the Ashen Steppe and around both the Perfume Sea and the Dreaming Gulf, when the K'kree arrived.

The planet was too wet and hilly for K'kree tastes, but they studied its people from orbit and noted that the locals did not eat meat and were of low technology. They nuked the biggest city, then landed and enslaved the survivors. By chance, the first inhabitants they talked to were Mazjaru.

SOCIETY

Except for the *Mamsyjuy* (dirty-stinky) – the favored few who are adopted into K'kree families and serve the Masters directly – Mazjaru mostly live in towns and villages, based around a single enterprise and the minimum infrastructure necessary to support it. Where they are present as peacekeepers, they live in a fortified bunker close to a communications or transport nexus, or between the natives and any K'kree settlement.

All Mazjaru communities are run by a *zhmadda* (deputy) who acts as the link between the Masters and the slaves. This individual has complete authority over the people and may exercise it as he pleases, provided he does not harm K'kree interests in the process.

Pre-contact Mazjaru society developed from a need – to gather both fuel to keep their eggs warm and food surpluses to feed their chicks (parents share these tasks equally). Their culture is based on *gamyzj* (kinship groups of up to 140 individuals of all ages) and service to a higher authority,

the *zdelma* (the local temple/school). In each case, the *èlè* (chiefs) are selected by popular acclaim from a field of suitable candidates.

The *gamyzj* was responsible for raising an extended family's chicks into productive adults, while the *zdelma* instilled civic virtues into them and gave them something useful to do. As the *zdelma* were simultaneously work-gangs and war-bands, and as the Mazjaru were their own beasts of burden, outside observers could easily mistake their consensual, communal work for a population entirely subservient to its priests. The Great Herd certainly did.

When deciding how to control the Mazjaru, the K'kree chose to emphasize the subservience aspect but replace the local religion with one of their own devising. They deliberately worked to break up kinship groups. The children are raised in crèches, by state-approved teachers, where they are subjected to indoctrination. The Mazjaru are forced to learn about the Great Cleansing Herd and what they must do to serve it. Those who serve well are rewarded with "passage into the next generation" (i.e., children); those who do not, are not. The mechanism for this is a scrupulous use of productivity targets and examinations in civics. Only those who are productive and who show knowledge of the official doctrine may breed. The *zhmadda* assigns adults to their occupation; any individuals with rare talents are sent to where they will be the most use.

The crèche system is actually very close to the original extended family group in form, if not in composition, so it serves as an ersatz family. The synthetic religion does little beyond reminding the Mazjaru that the K'kree came along, conquered them, let them live, and now own them. It is, therefore, easy for the slaves to fake obedience to the Masters. To the satisfaction of the Herd, a lot of Mazjaru score high marks in their theology examinations.

Mazjaru society is unpleasant, but not hopelessly so. The K'kree seriously overestimate the extent of their control of the Mazjaru. Ultimately, this is because they do not appreciate that they are, on average, not as bright as their slaves. They don't understand what their underlings are up to most of the time. Often they don't realize the Mazjaru are up to anything and usually take the *zhmadda*'s word that everything is all right.

Of course, some K'kree do understand what is going on and exercise much finer control. They



cannot change the religious teaching, but they can set realistic, even ascending, productivity targets and make sure that their slaves' efforts are properly recorded and the right individuals rewarded.

WORK AND PLAY

The Mazjaru work nine-*elyey* shifts for eight *ælum*, with every ninth one off. Their leisure activities include socializing, indulging in state-sponsored hobbies, and compulsory church attendance. The K'kree insist on communal, regulated social centers (attached to churches), and operate an alcohol-based incentive scheme. Mazjaru who turn up are given diluted ethanol, flavored with a syrup (ideally one of their own choice, but usually whatever is to hand).

K'kree-commissioned entertainment and preaching are mostly interchangeable. The entertainment is usually computer-generated and features good Mazjaru serving the Great Herd and being rewarded, while other, more wicked races betray the Masters and get trampled. The religious services are much the same, except that the preacher presents those who hit their productivity targets to the congregation and exhorts the people to expose idlers and backsliders.

The K'kree overestimate the effectiveness of this approach. Its main effect is to teach the Mazjaru what the Masters want to hear; when asked, they parrot the right things back. Their own underground art scene, based on oral poetry, dance, and music, is vibrant and subversive.

THE ÄZHJÈ

Every conquered people has its collaborators – in this case, the Äzhjè, who work enthusiastically for the K'kree. They also act as the *Krurruna's nose* (a K'kree idiom) in Mazjaru society. They are the death squads, secret police, informants, and spies for their masters.

They are awarded comfortable homes in the general Mazjaru community, but tend not to mix. They have preferential access to suitable mates (the standard K'kree reward for good service).

The Äzhjè do not serve as *zhmadda* for the other Mazjaru, but they are active entrepreneurs.

THE ZDAMUZHĀ-Ú

Even though Mazjaru and Gadmuru took their defeat lying down, the surviving city-dwellers did not. Some scientists, absent from Zdamuzh on secret business (they were testing an experimental hot-air balloon), along with the remnants of the urban population, hid from the K'kree among the nomads.

They formed a secret society, the Zdamuzhā-ú, which still exists. The members of this group are the guardians of ancestral values and knowledge. They maintain a network of cells across the Two Thousand Worlds, against the day when they will overthrow the *Ò-Plukh-Tch-* ("Sons of Dung," the Zdamuzhā-ú name for the K'kree).

Cells try to find out how K'kree technology works and then duplicate its effects. They share this knowledge with fellow members and, where possible, improve upon it. They also teach the *Zjazhrè*, an epic poetic cycle, which all upper-level Zdamuzhā-ú know by heart. It not only recalls the great

days, but also contains precise instructions on how to recreate them, including the methods of making incendiaries and gunpowder, guns and rockets.

Communication lags and the frequent isolation of cells mean that the *Zjazhrè* differs across the Two Thousand Worlds. Zdamuzhā-ú recite their versions when they meet, and will arrange field tests of any new or unfamiliar ideas. They pass on anything that works.

Perversely, the Zdamuzhā-ú often find themselves among the Mamsyjuy. To be in a position for their actions to hurt the K'kree – indeed simply to find out enough to see *how* to hurt them – they need to be seen as loyal and hard-working. Painfully, this means that they are regarded as race-traitors by most of the Mazjaru, who are unaware that the Zdamuzhā-ú even exist.

GOVERNMENT

The Mazjaru subjects of the K'kree have no formal government of their own: the K'kree select a *zhmadda* to run each community on their behalf. The Herd sees no reason to allow this to be a building block of a larger society, so it treats each community as an autonomous unit.

The Mazjaru find, however, that they need to plan strategically simply to obey the K'kree. Each community has its own transport, power supply, and sanitary infrastructure, but these are interdependent across wider areas than the K'kree like to think about. So the Mazjaru arrange to cooperate and just omit to tell the K'kree that they are doing so. Should a *Krurruna* notice that things are running well, the assorted *zhmadda* will slyly congratulate him on his superior organizational skills.

Consequently, an *öèlè* (chief's council) – a shadow government of Mazjaru – actually runs things in a settlement of any appreciable size. *öèlè* are composed of the actual heads of kinship groups and most knowledgeable members of work gangs, and try to work by consensus, or failing that, democratically. They usually include the relevant *zhmadda*. The deputy's success depends both on the cooperation of the *öèlè* and in keeping the council's operation hidden from the Great Herd. Whether the K'kree don't know this or simply ignore it is unknown, although they certainly are self-satisfied enough to think they really do rule through the direct application of force.

Naturally, the Äzhjè are aware of the *öèlè* system, but do not mention it to their Masters. Instead, they blackmail the *öèlè* into providing goods and services (including slaves and breeding partners) for them. On occasion, the *Krurruna* learns of a rebellious plot, and sends in the Äzhjè to deal with it. This is, of course, an absolute sanction, rarely used by the collaborators. They then have to bully the same concessions out of a different *öèlè*, which is more a matter of reaching an agreement with the resident Äzhjè than anything else. Particularly obnoxious Äzhjè can have accidents.

LAW AND JUSTICE

The K'kree decide all matters of law. The *zhmadda* work hard to keep dissent and law-breaking hidden from their Masters, because if they don't, the consequences are drastic.

The K'kree know that there are plenty more Mazjaru around, so will exterminate whole communities to encourage the others. Since the zhmadra dies with the community, there is a strong incentive for issues to be resolved locally, without troubling the Masters at all.

The Mazjaru do this through the òèlè, who apply their own legal heritage, the surprisingly resilient Zdamuzh Code, to these matters. Mazjaru law is straightforward – murder, treason, assault, theft, and calumny are all illegal. The Zdamuzh Code usually calls for the material compensation of victims, the use of fines as sanctions, and for a public expression of remorse by the guilty party, but it does include corporal and capital punishment. When these are executed upon the condemned, they must be disguised as industrial accidents rather than judicial acts.

Cases are heard by a judge acceptable to both parties, who have independent legal counsel. These officers are all drawn from the òèlè, as are the executioners. Proceedings are formal and thorough. The judge must be satisfied by the evidence offered and is obligated to be merciful whenever possible.

Dissent or actual rebellion against the K'kree is not, strictly speaking, an offense within the Code itself. However, it endangers the long-term plan of outliving the Great Herd and could lead to Mazjaru being killed in reprisal, so rebellion is construed as both treason against the people and the murder of persons unknown.

provide it. They also tell their Masters what it will take to make the goods in question; the Great Herd assigns the necessary resources and the Mazjaru get to work. This procedure is obviously inefficient, but the K'kree are not so stupid that the Mazjaru can grow rich on their gullibility. Enterprising zhmadra do derive some material gain from the process, but not enough to make their Masters suspicious.

PHILOSOPHY AND RELIGION

Aside from paying lip service to the K'kree-sponsored state religion, the Mazjaru have two faith systems. One is Älzmè (Water's Way), the other is Zjemudjrah (Mountain's Strength). Both draw conclusions from the survival of the primitive peoples after the destruction of Zdamuzh and the vitrification of Dream Gulf.

Älzmè teaches that just as the nomads followed the rains, moving from river to mountain and back, so the best way to cope with the K'kree is to move as they direct, safe in the knowledge that things change and that, eventually, the Two Thousand Worlds will be washed away, just as the rivers rise up in flood and sweep the valleys clean of cities. Älzmè is the majority faith among the Mazjaru; it teaches them to accept things calmly and to endure.

Zjemudjrah teaches that, while Zdamuzh might have been great, and while it did indeed conquer the Mazjaru, it never got the Gadmuru. They survived in their mountains. Their way was to hide, strike, retreat, and strike again. They denied the enemy three things: the means to effect their destruction, and the knowledge of who and where they were. Zjemudjrah followers approve of industrial sabotage, the accidental destruction of public records, and occasional acts of direct terrorism. It is a minority faith.

Both sects believe that the time of suffering is finite, albeit very long, and look forward to the relief of the Mazjaru. Neither teaches that aid will come from an outside source, but from Providence or the efforts of the oppressed.

Aside from recognizing that they all have a desire to be survived by their children, the Mazjaru have no particular beliefs in the spirit world or the afterlife. Those concepts perished with Zdamuzh.



BUSINESS AND TRADE

The Mazjaru are not allowed to trade externally, although they obviously buy and sell goods and services among themselves and, where they are an occupying force, with other slave races.

Their interaction with the K'kree is command-based – the K'kree tell the Mazjaru what they want and the slaves

THE MILITARY

The Mazjaru are entirely subservient to the K'kree, serving as auxiliaries to the Kitunika'rra. They perform picket duty, patrol built-up areas, do any jungle or mountain fighting, perform aquatic operations, storm bunkers. Very often, the K'kree deploy the Mazjaru simply to see what kills them.

If their slaves encounter serious opposition, the Masters will target a barrage on them. When the K'kree decide to spare a race, the Mazjaru act as the Herd's peacekeepers, bearing the brunt of insurgency and popular hatred.

The Great Herd also uses Äzhujè forces, picked for their strength and loyalty, as shock troops and provosts. The K'kree are less willing to sacrifice them than they are the basic Mazjaru infantry, but they still expect them to die in place of the K'kree themselves.

UNIT ORGANIZATION AND SMALL-UNIT TACTICS

Mazjaru units begin at the *úruzh* (platoon). The *úruzh* has four *òruzh* (squads). The *òruzh* is the smallest independent unit. The smallest organizational unit is the six-strong *èruzh* (team).

The *úruzh* has two K'kree officers, who usually command from a distance; one is a tactical commander and the other a scribe – an administrator who takes careful notes of which trooper did what and awards rewards and punishments.

When an *òruzh* is on foot patrol (by far the most common mission), one Mazjarã is at point, one in the rear, one on each flank, and the other eight in a loose group between them. The distance between the guards and the main body is usually 30 yards, or just within sight in close terrain or built-up areas.

A patrol usually knows it's in trouble when the point or flank guard falls over, dead or injured. The response is to hose down that direction with bullets, while a medic attempts to retrieve the casualty. If a firefight develops, the *òruzh* takes cover and does its best.

Unless ordered to assault, troopers support each other and suppress opponents' positions with automatic fire. If the enemy is pinned, they will shoot rocket grenades at him until he dies or surrenders, or the Mazjaru run out of ammunition.

The K'kree try to encourage aggressive action by shelling the entire area if the Mazjaru are taking too long to dislodge the opposition. This often has the unintended result of the *òruzh* discarding some of its communicators and retiring to a safe distance before the inevitable fire mission saturates the area with high explosive and napalm.

DISCIPLINE

The Mazjaru are not very determined fighters, so the K'kree maintain discipline by making it collective. If one *èruzh* member performs unacceptably, the entire group is punished, as is the leader's whole family. This works well enough in new units, whose members do not know each other, but as team spirit builds, so does a desire to work against the Great Herd. The troops lie for each other and misrepresent events to cast themselves in a better light. They even stage fake attacks on their own patrols, to enable them to claim that they drove the enemy off.

Not all the K'kree are entirely stupid, so they suspect that something like this is going on. Therefore, they rotate personnel between different units, to break up solidarity. But this also impacts efficiency very badly.

RECRUITMENT

Military service is a hereditary obligation for some Äzhujè, but not for the Mazjaru generally. Although it is possible for an individual to volunteer, this is very unusual. Instead, the Kitunika'rra tells a Krurruna how many troops it wants, and the local authorities supply them.

They do this by walking into a community, picking the fittest-looking childless Mazjaru they see (ideally an equal number of each sex), and marching them off to a training camp. The press gang makes sure they understand that the Masters will find out who their families are and where they live.

The recruits are forced to fertilize or lay an egg during training. This viable offspring is put into cold sleep as an additional hostage against their future behavior. The new soldiers are then given a contraceptive implant and shipped to the army. If they fail the K'kree, they will die, childless.

Should an egg's parent(s) die in combat, it is transferred to an Äzhujè crèche, and the chick is adopted into that caste. The K'kree believe this to be a privilege, for reasons which escape the Mazjaru.

WORLDS

Zjemu-ay is a geologically active, medium iron world orbiting Wra-Rrii (Large Sun), a K 0V star, which in turn orbits Neurr-Rrii (Small Sun), the system's F 5V primary. It is possible that Neurr-Rrii was captured by Wra-Rrii at some point, but somehow captured Zjemu-ay from it. Apart from variable season lengths arising from the position of the system's two stars, it has a pleasant enough environment, although some of the land is sterile, following the invasion. Zjemu-ay has one large moon, Ina.

The K'kree settle lucky Mazjaru in wet, hilly, forested environments. The others end up in asteroid mining colonies, on prodigiously volcanic hell-worlds, or on lifeless rockballs with reducing atmospheres. They are supervised by a K'kree family which has misbehaved.

It is possible that some Mazjaru settlements exist outside K'kree control; the Great Herd expends a lot of energy checking reports of such places. A misjumping transport could, theoretically, end up 36 parsecs beyond the Two Thousand Worlds, but abduction and manipulation by the Hivers is far more likely.



TECHNOLOGY

The Mazjaru are slaves to the K'kree, so they can only use what the Great Herd allows them. This means that their technology is primitive and incapable of overthrowing the status quo. With the exception of the Äzhujè, who are issued TL9 HEAT ammunition, Mazjaru technology never exceeds TL8. As well as being kept primitive, they are not allowed to use key technologies like gravitics, airfoils, or aerodynes. Their transport systems are alcohol-fueled trucks, steam engines and ships, and helium-filled zeppelins.

The main impediment to higher technology is an energy shortage. Domestic power supplies are usually solar, wind- or water- driven, or burned fossil fuels, but the factories have fusion units. The Mazjaru have all the power necessary to produce and process commodities for the Great Herd – mainly foodstuffs, mineralogical extraction and processing, and basic heavy engineering – but not to make things for domestic use.

Their own independently developed technology was largely TL1, with the exception of the serendipitous discoveries of gunpowder, steam power, antibiotics, vaccines, and hot-air balloons.

Although the Mazjaru can make superior versions of their original manufactures using higher tech-level materials, their enslavement denies them the leisure for more research. They cannot derive insights for the few items they have discovered because, although they know that these things work, they do not have the conceptual framework to explain why.

CLOTHING

The traditional Mazjaru costume is a sleeved robe, hanging from the shoulders. It is of light material, similar to cotton or linen, so that the crest can rise beneath it without discomfort. Colors are usually pale. Occasionally, the hem and cuffs are embroidered.

The robe has a hood, originally intended to protect against sun stroke, that is now employed to cover the embarrassing bald spot where the K’kree have cropped the crest.

RACIAL TEMPLATE 35 POINTS

Attributes: ST 8 [-15]; DX 10; IQ 10; HT 10.

Advantages: Enhanced Move (Running) ×3 [30]; Scales (DR1) [3].

Disadvantages: Primitive [-10]; Short Arms [-10]; Stress Atavism (Mild, rare, leading to bad temper and bloodlust) [-13]; Subjugation [-20].

Mazjaru in K’kree employ would be well-advised to take Common Sense and Sanctity (some of them smell nice to their Masters). Zdamuzhã-ú will find Empathy and Intuition handy, as well.

Anyone working for senior K’kree should buy off the Primitive disadvantage (although others might increase it).

Alcoholism carries the additional -2 Social Stigma of being a drunk, so the disadvantage is worth -25 points.

Being openly opposed to the K’kree or being a visible exile means acquiring the Great Herd as an Enemy. The pre-

cise value of this disadvantage needs to be worked out with the GM, but it can be as high as -120 points.

Being an underground rebel against the Masters is a -30-point Secret.

The Mazjaru all have a Social Status of -4 as far as the K’kree are concerned. Because Mazjaru society runs on consensus, status is not really a consideration; among themselves, the Mazjaru take notice of Charisma, Looks, and Voice. However, some also have Reputations, which can yield positive or negative modifiers, depending on circumstances. To the K’kree, Äzhujè have the Reputation of being reliable slaves.

The Mazjaru can have any skill which would not cause a liberal-minded K’kree anxiety. This *excludes* such areas as Armoury, Astrogation, Demolition, and Poisons. Those who know the Zjazhrè should buy Armoury (Black Powder Weapons), Demolitions (TL4), and History (Zdamuzh). Any attempt to make and use a homemade gun should be played out.

SPACECRAFT

The Mazjaru possess no independent space capability; they only travel on explicit K’kree instructions and in the Great Herd’s ships. To spare the Masters’ feelings, most of the passengers travel in low berths, operated by some Mamsyju. Even if the low-berth occupants could get out, most K’kree ships have automatic navigation, so there is little chance for mutiny.

WEAPONS

The only weapons available to the Mazjaru are made to K’kree patterns in Äzhujè-run factories. They are designed for use by little creatures with short arms and low upper-body strength, so are relatively short-barreled and bullpup-configured. This makes them quite handy, and they are in demand as export items to the civilian home defense, paramilitary, and police forces of the K’kree clients and satellites. They are relatively short-ranged and low-powered principally so that their owners cannot use them on the K’kree.

The standard arms are a 5.33mm carbine and 10mm sub-machine gun. The carbine is basic and rugged, with iron sights; the SMG has a laser sight. Only Äzhujè may use the 10mm caliber; it was issued to give them a chance against armored opponents, so it poses a threat to the K’kree in less trustworthy hands.

The Mazjaru also use 40mm rocket grenades, available with chemical, HE, or HEAT heads. These have a bullet trap and fit directly onto a gun’s muzzle. They are identical to the TL8 RAM munitions on p. GT115.

Name	Malf	Type	Damage	SS	Acc	1/2D	Max	Wt.	Awt.	RoF	Shots	ST	Rcl	Cost	LC	Hold.	TL
5.33 mm Carbine	Ver.	Cr.	Var.	12	8	288	3200	2.78	0.23	16	80	8	-1	380	-0	-4	8
With ball			4														
With APS			5+1 (APS)														
10 mm SMG	Ver.	Cr.		12	9	320	2300	8.43	1.68	20	100	9	-2	345	0	-4	9
With ball		Cr.	4														
With APS		Cr.	5+1 (APS)														
With HEAT		Exp.	2 (10)														

Governments

Matt Stevens didn't know what he was letting himself in for when he decided to explain some details of what a charis-

matic government really meant. By popular demand, that first article turned into a series that continues to this day.

Charismatic Governments

by Matt Stevens

Published May 2, 2000

It's easy to be confused by the way *Traveller* classifies governments – consider “charismatic dictators,” “non-charismatic leaders,” and “charismatic oligarchies.” Most of us are familiar with “charisma” in roleplaying games; in games like *Dungeons & Dragons*, it refers to a character's personal charm, attractiveness, and leadership ability. Many *Traveller* players assume that “charisma” has the same meaning here – making a “charismatic dictator” one who looks good on camera and a “non-charismatic dictator” one who doesn't.

But *Traveller's* creator, Marc Miller, majored in sociology in college, which means he intended a different definition. To sociologists, “charismatic” refers not to the personal qualities of a leader, but to the ways the leader justifies his rule. The term was introduced about a century ago by a German sociologist named Max Weber, who used it to ask these questions: Why does a ruler have the right to boss other people around? How does a ruler justify his authority?

AGAINST LAW AND PRECEDENT

Most rulers legitimate their rule through law or precedent. They say, “I was legally elected to my post and the Constitution gives me this power,” or “I am the King and according to our ancient traditions the King can do [whatever].” In such cases, the ruler observes (or pretends to observe) implicit or explicit rules that were laid down by others. Even if he holds enormous power, he recognizes that he is not above the law or above tradition.

Charismatic governments are different. They don't use constitutions or ancient precedent to legitimate their rule.

(They probably couldn't do so anyway, since they likely seized power.) So charismatic governments justify their rule in far cruder terms. They say, “We're great people, and because we're great, you should do what we say.”

Of course, their arguments tend to be a lot more elaborate. They may claim to be the Revolutionary Vanguard of the Proletariat, selflessly creating a classless society, or say they were Chosen by God to rule His people. Others will stress their unique genius, claiming to know all the answers to the nation's problems. Many will claim to be morally pure, unlike the greedy politicians they sent to the firing squads. Despite their different positions, though, all of them can be considered charismatic leaders.

Here are some examples of charismatic leaders and non-charismatic contemporaries from Terran history:

Charismatic

Oliver Cromwell
Napoleon Bonaparte
V.I. Lenin
Benito Mussolini
Adolf Hitler
Charles de Gaulle
Juan Perón
Mao Zedong
Gamal Nasser
Fidel Castro
Augusto Pinochet
Muammar Qaddafi
Mobutu Sese Soko

Non-Charismatic

Charles II
Thomas Jefferson
Woodrow Wilson
Emperor Hirohito
Franklin D. Roosevelt
Winston Churchill
Harry Truman
Nikita Khrushchev
Golda Meier
John F. Kennedy
Salvatore Allende
Margaret Thatcher
Mikhail Gorbachev

ROUTINIZATION OF CHARISMA

Charismatic governments don't last long; at best, they limp along until the original leadership dies off. Eventually, another charismatic government replaces them – one that's hostile to the first or (if they're lucky) their "revolutionary" government becomes institutionalized as the former charismatic dictator is peacefully replaced with a new one. Weber's term for this is the "routinization of charisma."

Government type B in *Classic Traveller*, the "non-charismatic leader," refers to this arrangement, in which "a previous charismatic dictator has been replaced by a leader through normal channels." Typically, these new rulers are allies or proteges of the old dictator, if not officially designated successors. Examples from Terran history include Deng Xiaoping (the ultimate successor to Mao), Anwar Sadat (who followed Gamal Nasser), and "Baby Doc" Duvalier (who inherited the Haitian presidency from his father, "Papa Doc").

Peaceful transitions like these are possible when the charismatic leadership has established a powerful political party to "institutionalize the revolution." Dictators can also routinize charismatic rule by establishing a dynasty, passing the throne to a son or daughter. Without these institutions, the charismatic regime will probably collapse upon the death of the ruler, replaced either by another charismatic government or by the restored pre-charismatic leadership.

DETAILS FOR TRAVELLER WORLDS

That's enough theorizing. Now that we understand the real meaning of "charisma," we can describe "charismatic governments" in more detail, adding background color to campaigns. Roll (2d-7 + Law Level) and check the column below that matches the government type of your world (A: Charismatic Dictator, B: Non-Charismatic Leader, C: Charismatic Oligarchy). Then read the description to see how the regime came to power and how it justifies its rule.

Government

Roll	Charismatic Dictator	Non-Charismatic Leader	Charismatic Oligarchy
2-	Party Machine	Strongman	Party Machine
3	Strongman	Strongman	Party Machine
4	Strongman	War Hero	Party Machine
5	War Hero	Revolutionary Military	Revolutionary Military
6	Revolutionary Military	Institutional Military	Revolutionary Military
7	Revolutionary Military	Elected Tyrant	Institutional Military
8	Institutional Military	Elected Tyrant	Institutional Military
9	Elected Tyrant	Revolutionary Party	Institutional Military
10	Elected Tyrant	Revolutionary Party	Revolutionary Party
11	Revolutionary Tyrant	Revolutionary Tyrant	Revolutionary Party
12+	Revolutionary Tyrant	Revolutionary Tyrant	Revolutionary Party

Each of these categories is fairly arbitrary, so GMs may be inclined to split some categories and join others. Never-

theless, each type of regime has a character all its own, which we see in the following descriptions.

PARTY MACHINE

Outwardly, this resembles *CT* government type 4 (Representative Democracy). The Law Level is reasonably low and there are periodic elections, which seem free and fair at first glance. Yet many natives will tell you that their "democracy" is something of a sham. They point out that the same party wins the elections all the time, and despite the elaborate "checks and balances" in their government, one man (the governor, the president, or whoever) seems to make all the decisions. They also complain about widespread fraud and corruption, and refer to the ruling party as if it's nothing but a gang of thieves. This is a kind of charismatic government known as a party machine. The leaders of a party machine dominate their worlds by liberally dispensing favors and jobs to anyone who supports them on election day. They justify their rule by reminding their constituents of all the wonderful things they've done for them. "Who let your cousin Timmy out of jail? Who got your Uncle Joe a job at the post office? Who paid your debts to the bookie?" So what if they took kickbacks from megacorporations? Everybody's entitled to take advantage of a good deal . . .

Party machines are conservative. They want to keep control so they can continue to skim money off the treasury and provide government jobs for their supporters. Government is seen as a business, and they want to keep low levels of order so that everyone can continue to make money. Otherwise, they have no grand plans and they're happy to leave people alone. Adventurers should have few problems with these regimes – and if they do get into trouble, they can always bribe their way out.

STRONGMAN

The strongman (or woman) is often someone with limited education who rose through the enlisted ranks of the army before he came to power in a military coup. He seized control with the help of his army buddies, and he rewards them handsomely every chance he gets. While all governments try to keep the army happy, the strongman does nothing but keep

the army happy. Like the party-machine leader, the strongman uses generosity to justify his rule, but while the party-machine leader is being generous to his supporters (who are ordinary citizens), the strongman is dispensing largesse to his fellow army officers, making sure they have a hell of a party under his watch.

Civilian life under a strongman can be precarious. The laws aren't particularly harsh, but the police and the armed forces are

allowed to run wild, stealing or killing on a whim without fear of punishment. Police harassment is a constant danger under these regimes, and it doesn't matter if you've done

anything illegal or not! Most law-enforcement officials can be turned away with a bribe . . . although some will take your money and shoot you anyway.

A strongman can maintain power for a long time, maybe even long enough for a son or a colleague to inherit his office. Typically, the army is so disorganized and undisciplined under strongman rule that it is unable to overthrow the regime. The greatest dangers to a strongman would be guerilla forces on his own world or the armed forces of another. The strongman's military would put up little resistance to an organized invasion – they would probably do little more than loot valuables and go into hiding on another planet where they could continue to cause trouble.



WAR HERO

Like the strongman, the war hero is a military officer who seizes power in a coup, but the war hero seizes power for different reasons and justifies his putsch in different terms. While the strongman offers money and license to the army, the war hero promises glory and adventure. Like Caesar or Napoleon, the war hero tends to be a talented general who proves his skill on the battlefield, wins the undying loyalty of his troops, and then uses them against the old regime. The war hero then uses his proven brilliance and leadership skills to legitimate his rule.

Many war heroes really are competent rulers, implementing a number of inspired and thoughtful reforms. They can be popular enough to rule without heavy-handed censorship or ludicrously high Law Levels. Unfortunately, charismatic war heroes quickly grow restless and bored with domestic politics, and before long seek additional glory and power on the battlefield. War heroes usually end up militarizing their own worlds to conquer others, which they feel would be much better off under the guiding hand of their genius.

It's possible, but unlikely, that the war hero will survive these adventures. If he does, he's more likely to pass his position on to a son or another relative than to set up a political party. Once institutionalized, the established dynasty will probably become stuffily conservative, with a taste for pomp and glory, keeping the memory of the glorious war hero alive for decades, if not centuries.

REVOLUTIONARY MILITARY

A revolutionary military regime also begins with a coup, but it's a coup not only against the previous regime but also against the army leadership itself. The rebels tend to be middle-rank or junior-level officers (or even NCOs) when they take power, who send both the politicians and the high-ranking officers off to jail. These revolts tend to be populist or left-wing, and the new leadership tends to identify itself with the people against the special interests, the politicians, the Imperialists, or other nefarious no-gooders. They justify their revolt and their rule by claiming to be part of a genuine revolution and the only authentic representatives of a popular movement.

Revolutionary military regimes encourage limited political participation, so some degree of pluralism and dissent can be tolerated. These regimes are dictatorships, however, and they usually impose draconian punishments against lawbreakers. Merchants who hoard supplies could be publicly flogged, for example, or bureaucrats who are accused of corruption could be shot without trial. (Vigilantes may be encouraged to impose this kind of "justice" on their own.) Adventurers who break the law in even minor ways could find themselves in life-threatening trouble with the authorities.

Eventually, these regimes may "institutionalize the revolution" by setting up a nationalist or left-wing political party. These parties may go on to contest democratic elections, or they may maintain their position under a one-party state. In either case, their "revolutionary" fervor will quickly die out, to the disappointment of some citizens but to the vast relief of most.

INSTITUTIONAL MILITARY

When the military as an institution seizes power, typically the highest-ranking officers are put in charge (after removing a few loyalists to the old regime). The joint chiefs of staff may rule collectively as a junta or they might choose a single, high-ranking officer to serve as president while the others retreat to the barracks. Military coups like these are typically staged to clamp down on disorder or to prevent "undesirables" from seizing power. Their justifications are conservative; they claim to be saving the world from Communism, anarchy, the psionic menace, or some other threat to Imperial values, and they usually raise the Law Level to punishing levels in an effort to restore "order" on the world.

These regimes tend to see themselves as "temporary guardians" of their worlds. Their stated intention is to purge unruly elements and return to civilian rule as soon as the people are "ready." However, if the public is restless under this state of emergency, the military may interpret it as a sign that the people aren't "ready," so they might impose martial law indefinitely. Eventually, they may institutionalize their rule by establishing a civilian party that promises to continue their conservative policies.

Visitors to these worlds will encounter few problems at first. They'll find that streets are clean, lawbreakers are few, and tourist money is openly welcomed. The real victims of military rule – such as students, journalists, and the poor – will be hidden from view. Of course, if visitors run afoul of the law, they will discover how harsh the regime really is.

ELECTED TYRANT

An elected tyrant comes to power through openly legal, democratic means, but then he proceeds to strip away freedoms and impose authoritarian rule. He's a politician, much like the party-machine boss, but he's interested in far more than "jobs for the boys." The elected tyrant has a mission and a messianic self-image. He seeks absolute control in order to remake society according to his master plan. He calls himself a genius, an expert on every subject, and (like the war hero) he uses his personal "genius" to justify his rule.

Elected tyrants have no tolerance for dissent, so Law Levels tend to be high (at least after the old democratic freedoms are stripped away). However, such leaders can be enormously popular if they deliver on their promises and leave most people more or less alone. Their real victims tend to be unpopular ethnic or religious minorities, singled out for persecution, expulsion, or even more hideous penalties. Anyone without a role to play in the elected tyrant's master plan is to be ruthlessly eliminated.

Elected dictators tend to come to power as leaders of political parties, and if their regimes survive, these parties may be able to institutionalize their rule by electing successors (who would be considered non-charismatic leaders). These new leaders may continue the oppressive policies of their predecessors, but without the same messianic fervor.

REVOLUTIONARY PARTY

A revolutionary party is a well-organized group of civilians who have seized power through force. Typically made up of students and other intellectuals, the party may have taken power in the midst of street protests, or they have done so through a long, protracted guerrilla war (possibly against a strongman; see pp. 52-53). At first, they may have joined with other opposition parties, but eventually these parties were either relegated to subordinate positions or forced out of power. Today, the revolutionary party rules alone, legitimizing its actions in the name of the people or the historical forces it claims to represent.

Law Levels under a revolutionary party tend to be high but not overwhelmingly so. Typically, there is some degree of pluralism within the party (if not actual democracy), and the government tolerates a very limited degree of dissent. Nevertheless, the regime is highly authoritarian. It has a blueprint for the "proper" way to organize a society, and it's willing to radically disrupt the lives of its citizens to realize this vision. Such efforts inevitably provoke strong resistance, which is labeled "counterrevolutionary" and ruthlessly suppressed.

Ultimately, these master plans do not work as well as expected, and the party can then go in one of two directions: It can accept its failures, repudiate its old policies, and pursue a less radical course, or it can argue that "traitors" or "counterrevolutionaries" were responsible for its failures, in which case a revolutionary tyrant will likely come to power.

REVOLUTIONARY TYRANT

The revolutionary tyrant is perhaps the most dangerous and ruthless charismatic dictator. The tyrant comes to power

as one leader (possibly among many) in a victorious revolutionary party. Once the party has achieved absolute control, he begins a bloody reign of terror against the party itself. He justifies his rule and his ruthless purges by claiming to be the only true revolutionary in the party, the only one who genuinely speaks for the people. His opponents, real or imagined, both inside and outside the party, are denounced as traitors, reactionaries, and counterrevolutionaries.

No one is safe under a revolutionary tyrant – not the police, nor the army, nor the party, nor the average citizen. Anyone, guilty or innocent, can be charged with an obscure crime and dragged into the night. A successful rebellion is almost impossible: No one dares speak out against the regime, and the secret police are so powerful, and their presence so pervasive, that no one can organize covertly without being discovered. The only real danger to the regime would be an outside force; the armed forces, crippled by purges, may be too disorganized to defend the world successfully.

Most of the time, the revolutionary tyrant will be able to rule unchallenged until his death. At that point, the remnants of the old party will meet and elect a successor. This new leader will rarely continue the policies of the old tyrant – after all, some of his friends or relatives no doubt suffered in the purges. Instead, he will probably put an end to the Terror and reduce the Law Level a bit without completely liberalizing the regime.

ADVENTURE POSSIBILITIES

Violence, corruption, and conspiracy are endemic to charismatic regimes, and any of these elements could contribute to an exciting adventure. Below are a few possible adventures that can take place on a world with a charismatic government. GMs should be able to come up with many others.

- Characters can join a coup or revolution to establish one of these regimes, or they can defend the old ruler against one.

- They can run afoul of the law, either intentionally or unintentionally.

- Characters may be hired to rescue an offworlder from one of the regime's many prisons, or in the wake of revolutionary violence.

- They may be hired to deliver weapons to a group of rebels.

- Revolutionary governments often inspire fear in their neighbors. A nearby world might hire the group to spy on the regime, or commit acts of sabotage against its military installations.

- A visitor may be killed on one of these worlds by security forces, and the group then asked to bring the killers to justice.

- The characters could be asked to monitor elections in a world dominated by a party machine.

- A newly installed government might threaten to nationalize the property of a megacorporation, which could hire negotiators to convince the government otherwise.

Bureaucratic Governments

by Matt Stevens

Published May 30, 2000

Two of the more common government types in *Classic Traveller* are the “Civil Service Bureaucracy” (type 8) and the “Impersonal Bureaucracy” (type 9). One must understand what a bureaucracy is in order to appreciate the strengths and weaknesses of these governments and the different forms they can take.

When most people hear the word “bureaucracy,” they immediately respond with words like “bloated,” “inefficient,” and “red tape.” Bureaucrats are called “bean counters” and “paper-pushers,” held responsible for waste, corruption, and thousands of unnecessary rules and regulations. Few have anything good to say about bureaucracies or the people who run them.

Yet one can paraphrase Winston Churchill: Bureaucracy is the worst form of government, except for all the other kinds. When we complain about “bureaucrats,” we’re really just complaining about “big government,” or any large organization for that matter. Most large organizations will be wasteful and inefficient, and have lots of unnecessary rules – but if they have genuine bureaucrats, they can still get things done. Without them, large-scale government becomes a nightmare of corruption, incompetence, and abuse of authority.

PAPER TIGERS

By definition, all bureaucracies share a number of features.

- They are hierarchical organizations; every official has definite superiors and subordinates.
- Every office has a specified jurisdiction, usually a fairly narrow one.
- Everyone is expected to follow strict rules, regulations, and standard operating procedures (SOPs).
- Every official has to meet qualifications appropriate for his position. Qualifications may be determined by educational background, seniority, exam scores, or past performance in office.

Note that armies and police departments are just as “bureaucratic” as welfare agencies and the postal service. They have many of the same virtues – fairness, honesty, and professionalism – as well as the same problems, including

conservatism, rigidity, a weakness for scapegoating and buck-passing, and an inclination to follow silly regulations to the point of absurdity.

You’ll find these characteristics in just about all large bureaucracies, both public and private. Government bureaucracies are different, though, in one important respect: It’s generally much harder to fire a government bureaucrat than one in the private sector. This has an obvious downside – lazy and incompetent people can rise to the top by avoiding mistakes and doing the minimum work necessary – but there are considerable benefits. First, it ensures that bureaucrats are free of political influence, preventing a new president (for example) from firing everyone in the post office who voted against him. This provides continuity in administration when a ruling party is voted out of office.

The second advantage is it helps to keep officeholders fairly honest. Bureaucrats with financial security are less likely to take bribes or favor a company in exchange for a job offer. Of course, this is only the case if the bureaucrat is paid a livable wage; if he’s paid a pittance, he’ll have to accept bribes or take jobs with the people he’s supposed to regulate, just to put food on the table. Still, job security helps to keep government honest.

OUT OF CONTROL

It’s important to distinguish between the rulers of a world and their administrators (or staff). Bureaucrats almost never rule directly (except under military regimes); usually a politician, a monarch, a businessman, or a professional “world manager” sits at the head of the government. Bureaucrats still have a great deal of influence: they give advice; they can withhold information; they can delay implementation of policies they dislike, or enforce them so brutally that the public demands their repeal. Still, they’re usually more comfortable working for somebody else. It keeps them “non-partisan” and insulated from public criticism, which would be impossible if the bureaucracy ruled directly.

Under government type 8 (a “civil service bureaucracy”), the government’s non-bureaucratic leaders really do rule, at least when they’re united, although administrators still shape policy through discreet and indirect means.

Under type 9, however – an “impersonal bureaucracy” – politicians find it impossible to control the administrators and become little more than figureheads. There are several ways this could happen; roll 1d or choose from the following list of examples:

1. An agency may be given an enormously wide jurisdiction – so wide that it can do just about anything. Give the top administrator civil service job protection as well, and he can force politicians to do his bidding. (Otherwise, he will shut the oxygen off in their districts, close down all the schools, send a wrecking crew through their homes, or whatever else strikes his fancy.)

2. Certain positions in the cabinet may be reserved for bureaucrats such as army officers; the government will fall apart if these agency leaders refuse to serve. If the bureaucracy is united, this gives it a complete veto over any policy it doesn't like. (Japan suffered under this arrangement in the 1930s.)

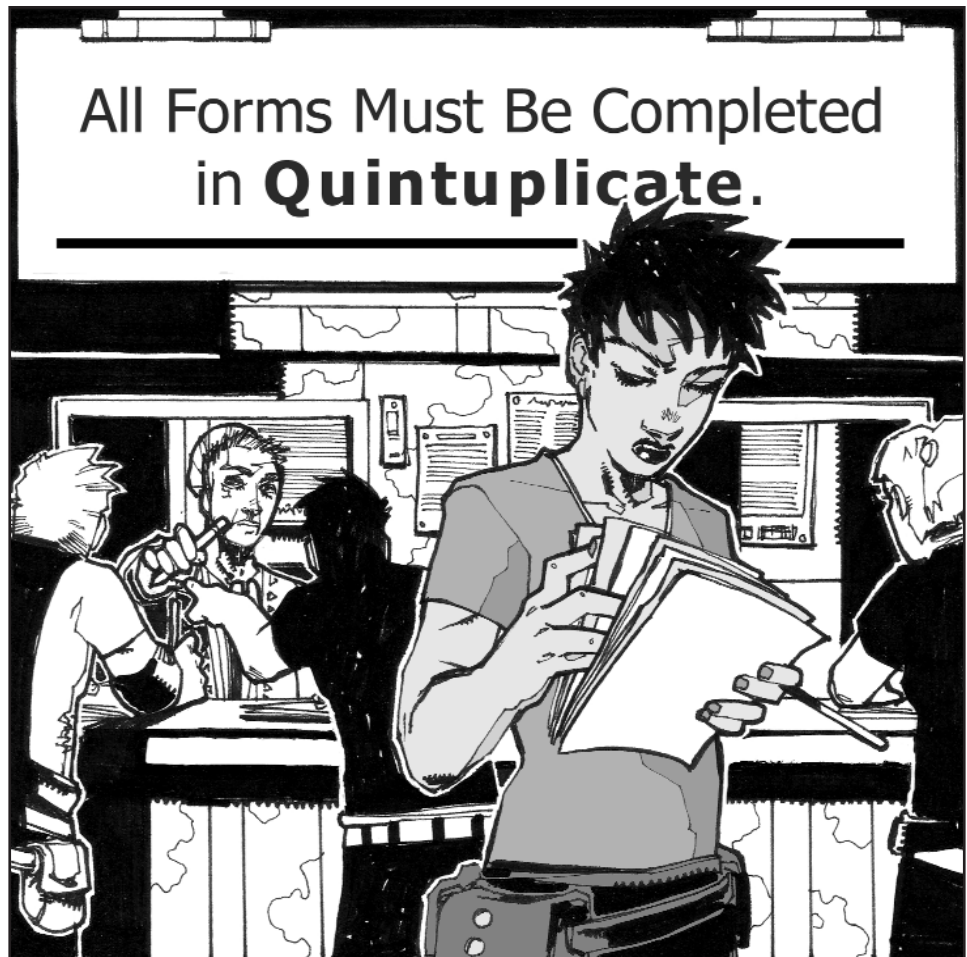
3. The constitution may give bureaucrats a “mediating” role in the government. When different branches of government (such as the president and the legislature) can't get along, the agency steps in and resolves the dispute. If politicians never agree on anything, the bureaucrats will run things all the time. (See Brazil before the 1960s for an example.)

4. A crafty bureaucrat can accumulate so much political power that no politician will oppose him. He might become a media darling, for example, and use the press to discredit his critics. He could make friends in high places, who make sure his agency is well-financed. Or he could track down incriminating documents and blackmail well-placed politicians.

5. Some rulers will encourage their bureaucrats to run things. These leaders might be lazy, leaving the real work to the paper-pushers while they hang out at the golf club. They might feel incompetent and do what their officials suggest out of fear of making mistakes. Or they might be senile or crazy, leaving administrators without coherent instructions and with no choice but to make their own policies.

6. Under single-party states or other non-democratic regimes, the “political” leadership may be recruited directly from the bureaucracy: When a ruler steps down, he appoints a trusted bureaucrat to his place. The bureaucracy doesn't rule directly, but it doesn't have to, since the new ruler probably agrees with them, anyway.

There are plenty of other possibilities. Feel free to come up with more.



LEADERSHIP TYPES IN BUREAUCRATIC REGIMES

So far we've been talking about “rulers” and “political leadership” only in the vaguest sense. As a referee, you may want to know more about them, if only for local color. Roll (2d-7 + Law Level) and check the table below for a world's leadership types. (If you're using *GURPS Traveller*, roll [2d-7 + (Control Rating × 2)] instead.)

Roll	Leadership
2-	Participatory Democracy
3	Representative Democracy
4	Representative Democracy
5	Representative Democracy
6	Representative Democracy
7	Unusual (see below)
8	Professional Government
9	Monarchy
10	Monarchy
11	Military Government
12+	One-Party Autocracy

Each of these, described in some detail below, can be considered government “sub-types.” You can label each of

these regimes as “bureaucratic _____,” such as “bureaucratic monarchy” or “bureaucratic one-party autocracy.”

MILITARY GOVERNMENT

In this world, the military has a constitutionally protected role in the political system, as described under *Out of Control*. The current leader is a military officer who came to power through purely legal means (rather than a *coup d'état*), and who plans on leaving office as soon as the latest crisis has past.

MONARCHY

Ultimate executive power rests in the hands of a hereditary monarch. There may also be a weak legislature of some sort, made up of hereditary peers, elected representatives, or “advisors” appointed directly by the monarch. Bureaucratized monarchies tend to be much more “open” and meritocratic than the more aristocratic monarchies found under government type 3 (self-perpetuating oligarchy).

ONE-PARTY AUTOCRACY

When the leaders of this world step down, they have the power to appoint their successors. The leaders may appoint them directly, or may choose members of a committee who then select a successor when the ruler dies or retires. Far more common under “impersonal” than “civil service bureaucracies.”

PARTICIPATORY DEMOCRACY

While the government as a whole is bureaucratic, ordinary citizens have a great deal of input into lawmaking and other major decisions. The leadership is elected, as in a representative democracy, but the public has the right to veto laws or propose new ones through periodic referenda. The average citizen has a fair amount of power, but it's only exercised in the voting booth. There's little of the face-to-face discussion or debate that one would find in a true participatory democracy (government type 2).

PROFESSIONAL GOVERNMENT

Citizens formally elect a legislature or a Board of Supervisors on this world, but executive authority is invested in a World Manager. These professionals are trained in world-management programs in major universities, and are hired by the Board or the legislature on the basis of their accomplishments or their academic credentials.

REPRESENTATIVE DEMOCRACY

Citizens elect the world's leaders. These leaders tend to be lawyers or other well-to-do citizens, and most are members of large, bureaucratized political parties. Citizens have little direct contact with their leaders in bureaucratic representative regimes, and what little they know about them, they learn from political advertising or the news media.

UNUSUAL GOVERNMENT

This is a catch-all category for any other kind of leadership, especially the more exotic kinds. Examples include rule by computer, a council of elders, a random selection of citizens, fortune-tellers, a genetically engineered “master race,” a group of nobles, or a group of high-paying “shareholders.” Referees interested in unusual leadership can turn to the excellent BITS supplement, *101 Governments* (available in the USA through Warehouse 23), for plenty of wonderful ideas.

ADMINISTRATION IN OTHER GOVERNMENTS

I've argued that bureaucrats tend to fill administrative positions while leaving the top posts to others. It may be helpful to look at how other governments fill low-level positions, and how this might affect the way they work.

COMPANY/CORPORATION (GOVERNMENT TYPE 1)

Corporations tend to be run along bureaucratic lines. The main difference is that corporations don't offer as much job security as governments do (often making up for this by paying higher salaries). This gives senior management more control, and more power to fire the lazy and the incompetent.

Corporations tend to have a ruthless efficiency that government bureaucracies lack (whether citizens would want a ruthlessly efficient, profit-hungry government is another question), although some may be plagued by cronyism and nepotism, especially if they're privately held.

DEMOCRATIC GOVERNMENTS (GOVERNMENT TYPE 2 OR 4)

In participatory democracies, just about all positions are filled by election, or even by lot. (So you may find yourself drafted into the Nerf-Herder Oversight Committee when you aren't looking.) If the world's population is low enough, there may not be any administration below the elected officeholders. Instead, local officials may simply gather a group of civilian volunteers whenever a dam needs to be built, a fugitive needs to be caught, or a wild Land Squid needs to be captured.

Large-population worlds rely more on hired help than volunteers. Elected officials typically have broad discretion in hiring, but if they hire the people who helped elect them, it's called a “spoils system.” All administrators will be members of the ruling party, appointed directly by the chief executive. When this party is voted out of office, everyone in government is fired and replaced.

This system might work if the government is small and little technical expertise is required; otherwise, it creates a giant, inefficient mess. It can also corrupt the political process, turning parties into little more than clubs for greedy, job-seeking hacks.

OLIGARCHY

(GOVERNMENT TYPE 3)

Under a self-perpetuating oligarchy, more people are born into positions of authority than earn them. Some positions may be completely hereditary. Others may be open to anyone, in theory . . . but in practice, the “old boys’ network” (or old girls’) hands out the jobs to the people from the “best” families. Some of these rich kids will be talented and highly motivated, but the majority will be hopeless.

FEUDAL TECHNOCRACY

(GOVERNMENT TYPE 5)

Officials in a feudal technocracy tend to be highly trained and well-motivated, but feudal government is far less centralized than any kind of bureaucracy. Sometimes this works well; feudal technocracies can be more innovative than rule-bound bureaucracies, and they can be devastatingly effective when everyone is working from the same script. But mobilizing feudal levies is awfully hard, and getting them to work as a team can be near impossible.

CAPTIVE GOVERNMENT

(TYPE 6)

These governments tend to be organized on somewhat bureaucratic lines, but officeholders tend to be recruited from offworld, and are even less responsive to the public than the worst kind of impersonal bureaucracy.

BALKANIZED (TYPE 7)

As one might expect, different governments on a balkanized world will administer their territories in different ways. Determine the government type separately for each state to determine its administration.

CHARISMATIC GOVERNMENTS

(GOVERNMENT TYPES 10-12)

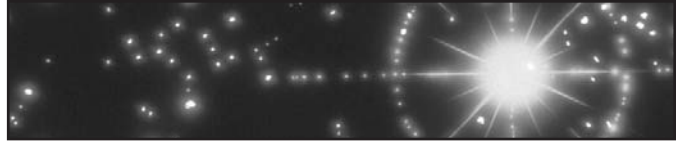
Most charismatic governments seem to be organized along bureaucratic lines, but the “bureaucracy” has been distorted by all the coups, revolutions, and counterrevolutions endemic to these worlds. Since bureaucrats (in the army and elsewhere) often have the power to topple governments, charismatic leaders grow obsessed with the loyalty of their staff. Rather than appointing officials based on seniority or exam scores, they’ll look at their loyalty to the Party or their revolutionary credentials – so administrators are more likely to be “politically correct” than actually know what they’re doing. The instability of a charismatic regime also undermines any sense of job security, tempting officials to become corrupt.

RELIGIOUS DICTATORSHIP

(GOVERNMENT TYPE 13)

Administrative practices depend on the government’s religious doctrine, but we can make a few generalizations.

Religious administrators, like bureaucrats, tend to be honest and fair-minded, but also rigidly conservative and rule-oriented. In fact, they are even more rigid and rule-obsessed than bureaucrats, since their rules are based not on fallible human laws but on the Word of God. Self-appointed vigilante groups, as well as religious officials, may enforce many of these rules – and vigilantes can be particularly fanatical and violent.



ADVENTURES IN BEAN-COUNTING

Bureaucrats aren’t known for their sense of adventure, and bureaucratic worlds tend to be fairly safe and predictable – places where travelers can stay when they don’t want to be shot at. People can still get into trouble on these worlds, though, at least with an inventive GM. Here are a few possibilities:

- Legislators cut the Transportation Bureau budget soon after the group arrives. TB bureaucrats retaliate by shutting down the starport, hoping it will provoke such a public outcry that the legislature will return their money. The adventurers have to get offworld within 24 hours for an important engagement, but their ship is locked in a starport hangar. What are they going to do?

- Robert Jacobs, super-bureaucrat and chairman of the Planetary Building Committee, has decided to build a rollerball stadium in the middle of a low-income neighborhood. Thousands of poor people will lose their homes, but local politicians are terrified of Jacobs (who might blow up their districts, too, if they don’t toe the line) and are unwilling to help. So a delegation from the neighborhood approaches the adventurers and asks them to sabotage the stadium project.

- The team is desperate for work, so when the Census Board asked for volunteers, they quickly signed up. Now they’re being sent to the mountains in an air/raft, to interview a fortress full of heavily armed survivalists. These fanatics will be told to fill out the “long form,” complete with detailed questions on their sexual preferences . . .

- A wealthy patron sent valuable historical documents to a colleague through the post office. The documents never arrived and no one at the post office will help, so the group is hired to find them. Eventually, they discover that postal employees are X-raying the mail and keeping anything valuable. They’ll try to kill the adventurers if they’re discovered.

Other sources of adventures are *GURPS Warehouse 23* and “The Terminal” in *Over the Edge* by Atlas Games. Finally, I should recommend the *Classic Traveller* adventure “Exit Visa.” Originally published in the *Traveller Book* and republished with the fourth edition of the game, it’s a wonderful scenario that can be used in any number of situations. Track it down if you can.

Democratic Governments

by Matt Stevens

Published June 13, 2000

This article is designed specifically for government type 2 (Participatory Democracy) and type 4 (Representative Democracy), but it can be used for any world with elected leadership, such as bureaucratic worlds (types 8 and 9) and party-machine charismatic regimes (types A and C). Most readers are already familiar with “democratic” governments, and know all about presidents, parliaments, elections, and parties, so I’ll forego a lengthy introduction. This article just provides some tables that will describe your “democratic” worlds in a fair amount of detail.

I could have assumed that *Traveller’s* democracies are just like Earth’s, and used American conceptual tools to describe them (referring to Executive, Legislative, and Judicial powers, for example). However, canonical *Traveller* campaigns take place more than 3,000 years in the future. Imperial culture has drawn upon Vilani and alien as well as Terran sources, so there’s no reason why democracies in the Imperium have to follow Terran models. I tried to use generic terms in the following tables whenever possible, hoping that just about any kind of “democracy,” from modern-day governments to ancient Greek city-states, could be created from them.

Rio

Rio, in the Chronor Subsector of the Spinward Marches, is my example in this chapter. Rio’s UWP is C-686648-8, classified as Rich, Agricultural, and Non-Industrial. *Behind the Claw* says that it has a cold climate, it was colonized during the Rule of Man, and the government of Rio has “kept the planet neutral [from the Zhodani and the Imperials] for the past 530 years.” Other sources tell us that Rio has a population of about two million, and there are two M-class stars in the system (one main sequence, the other a white dwarf).

These findings suggest that Rio is comparable to Switzerland, a small, democratic, and (until recently) largely agricultural nation that maintained a strict neutrality policy. The name “Rio” suggests it was settled by Spanish or Portuguese speakers, who live along the banks of a huge river. (Since Rio would be a tidally locked world, this river probably runs along the “twilight zone” between the light and dark halves.) Interested referees can provide more details on their own.

LEADERSHIP INSTITUTIONS

Roll (2d-7 + population) and check the table below to determine the number of independent institutions. “Independent” means that the institution members can make decisions without permission from other institutions.

Roll	Result
≤ 3	One major institution
4-6	Two major institutions
7-9	Three major institutions
10+	Four major institutions

For each institution, roll (2d-7 + Law Level); subtract 1 for the first institution, 2 for the second, 3 for the third, and 4 for the fourth institution. Then check the table below.

Roll	Result
≤ 3	Large group (assembly), 10 or more people
4-5	Small group (council), 4 to 9 people
6	Triumvirate
7	Two people
8+	One person

Then roll 2d for each institution, and subtract 3 in Participatory Democracies, to determine how its members are selected.

Roll	Result
≤ 2	Chosen by lot
3-6	Elected directly
7	Elected indirectly
8-10	Appointed by another institution, but given significant job security
11-12	A hereditary position

Note that at least one institution will not be appointed. If this is the case, reroll for one institution, ignoring rolls of 8-10.

For example, Rio has a population of 6 and a Law Level of 8. We roll 9, for a final result of 8 (9-7+6), giving Rio three major institutions. So we roll 10 for the structure of the first institution, giving a final result of 10 (10-7+8-1), “one person.” We roll 2 on the third table, suggesting he is “chosen by lot.”

For the second institution, we roll 5 on 2d, getting a final result of 4 (5-7+8-2), indicating a “small group (council) of 4-9 people.” A roll on the third table gives us 8, “appointed by another institution, but given significant job security.”

We determine the third institution by rolling 2d and getting a 7, leaving an adjusted total of 5 (7-7+8-3), again a “small group (council).” Rolling 2d again gives a 5, “elected directly.”

We decide that Rio is ruled by a President, a Planetary Council, and a Supreme Court. The Planetary Council (*Concejo Planeta*) of nine members is elected directly for five-year terms. *El Presidente* is a member of the council, selected by lot for a one-year term. Supreme Court justices are nominated by the President but must be approved by the Planetary Council; they serve for 16-year terms and cannot serve more than a single term.



DIRECT DEMOCRACY INSTITUTIONS

In a direct democracy, laws ultimately need to be approved by the entire citizenry. Roll (2d-7 + population) and check the table below to find out how this is done.

Roll	Result
≤ 4	World meeting. All citizens gather at a central meeting place to vote on legislation when summoned.
5	Regional meetings. Citizens gather at local or regional meeting places to vote on legislation of regional or worldwide importance.
6-7	Draft-lottery legislature. A random group of citizens is summoned to participate in a legislative body whose approval is necessary for legislation. (These issues may be submitted to the population in referenda when the votes lie within a certain margin of error.)
8+	Referenda. Citizens report to their local polling stations and vote on a variety of issues by secret ballot. Roll 2d again; if this result is less than the tech level, citizens will vote at home through electronic media.

SUFFRAGE

Even the most liberal democracy has some restrictions on who can or cannot vote. Find out what they are by checking the following table.

Law Level Die Rolls

0-1	Roll 1d
2-3	Roll 2d, then 1d
4-5	Roll 3d, then 2d, then 1d
6+	Roll 4d, then 3d, then 2d, then 1d

Roll the dice indicated by the table above and check the table below to determine the requirements for voting.

Roll Restriction

1	No restriction
2-5	Must be an adult
6-7	Must be a citizen/long-term resident
8	Must be literate
9	No restriction
10	Cannot have a criminal record
11	Must be male/female
12	Must meet property qualifications
13	No restriction
14	Must belong to official religion
15	Must serve in the Army
16	Must be the child of a citizen
17	Must be an Imperial noble
18	No restriction
19	Cannot belong to a specified ethnic group
20	Cannot be affiliated with certain political groups
21-22	Must “buy” his or her vote, or pay a special tax
23-24	Must pass a test

If the roll is 1, 9, 13, or 18 – “no restrictions” – ignore the roll, but any other restrictions (from other rolls) still apply. If the same result comes up more than once, do not reroll – just ignore the duplicate results.

For example, the world has a Law Level of 8, so we roll 4d first, getting a 19, “cannot belong to a certain ethnic group.” The 3d roll is 7, “must be a citizen/long-term resident.” The 2d roll also comes up a 7, so we ignore it. Finally, the 1d roll is 4, “must be an adult.” The last two restrictions are fairly common, but the first is unusual. We decide that years ago, after a spy scandal, there was widespread public outrage against the Zhodani. A few anti-Zhodani initiatives were passed, and residents of Zhodani ancestry (with their sinister psionic powers) lost the right to vote. (The Consulate wasn’t happy with these initiatives, but it decided not to protest them too strongly, feeling it had to tread carefully to maintain Rio’s neutrality.)

PARTY SYSTEM

Elected representatives belong to political parties in all but the simplest democracies. Parties make voting easier, because a candidate’s party affiliation gives voters some idea of what he believes in. Parties also conduct “get out the vote” drives which increase voter turnout. Democracy doesn’t work very well without them.

You can describe a world's party system, first, by rolling 1d. If the result is equal to or less than the population digit (the exponent, as defined on p. GT123), there are clear political parties; otherwise, candidates run purely as individuals, with no clear ideology or affiliation. If parties exist, roll 2d again, subtract 1d if the Law Level is 9 or more, and check this table to determine how many there are:

Roll	Number of Parties
≤ 3	None. Parties are banned. Candidates run as individuals, without clear ideological positions.
4-5	One party, either a voluntary union of old parties or a party so overwhelmingly popular that it has no significant opposition.
6-7	Two parties
8	Three parties
9	1d+3 parties
10	1d+4 parties
11	2d+4 parties
12	3d+4 parties



If there are more than a half-dozen parties, you can ignore all but the first six – assume that others win a tiny minority of the vote and rarely play a strong role in government. Determine the characteristics of the other, major parties by following these steps:

1. Roll 2d for each party to find the median social standing of its supporters. Those parties with low values can be considered “left wing” and more sympathetic to the poor, while those with high values can be considered “right wing,” with sympathies toward the well-off.

2. Roll 5d + the median social standing and check the table below to determine the party's ostensible “ideology,” which will serve as the core of the party's name. If you roll the same “ideology” twice for two different parties, or if

you're instructed to “roll again and combine,” roll a second time and use both terms in the party's name (reroll duplicates). This can give you combinations like “Socialist Worker's Party,” “New Progressive Party,” “People's Progressive National Union” or whatever. (Don't worry if you get seemingly contradictory results, like “Progressive Conservative Party.” Names like these come up in our own world.)

Roll	Ideology
7	Roll twice and combine
8	Communist
9	Anarchist
10	Revolutionary
11	Worker's
12	Socialist
13	Labor
14	Progressive
15	Popular/Populist/People's (roll again and combine)
16	Radical
17	Social/Socialist (roll again and combine)
18	Reform
19	New (roll again and combine)
20	Named after date (“Fifth of November,” “Twoday”)
21	Named after country (roll again and combine)
22	Unusual (make one up!)
23	Named after a color (“The Greens”)
24	Democratic
25	Democratic (roll again and combine)
26	Republican
27	Independent/Independence (roll again and combine)
28	Named after region or ethnic group
29	Liberal/Liberty/Liberation/Libertarian (roll again and combine)
30	Named after person (“Alfredo Sanchez”)
31	National/Nationalist
32	National/Nationalist (roll again and combine)
33	Named after religion (“Granada”)
34	Popular/Populist/People's
35	Freedom
36	Free (roll again and combine)
37	Liberal/Liberty/Liberation/Libertarian
38	Agrarian/Farmer's
39	Conservative
40	Fascist
41	Nazi
42	Roll twice and combine

Finally, roll 2d on the table below to determine the “organization type.”

Roll	Type
2-3	Alliance
4	League
5	Movement
6-9	Party
10	Union
11	Congress
12	Other

Combine the party's “ideology” with their “organization type” to generate a name for the party.

For example, first we roll 1d and get 5, indicating that there are political parties on the world. A second 2d roll of 8 says that there are three of them. We roll 2d for the median social standing of the first party and get 7, very middle of the road. For ideology, we roll 5d + average social status (7) and get 26, Republican. Rolling 2d on the organization-type table gets 10, Union. So the name of this party is the Republican Union (or *Union Republicano*).

Rolling 2d for the second party's median social standing produces a 4, indicating a left-of-center party. Rolling 5d and adding this value gets a result of 18: Reform. Rolling 2d on the party-type table gives me 8, Party. So the full name is the Reform Party (*Partido Reforma*).

Finally, we roll 2d for the median social status of the third party, and get a 3, so it's even more left-wing than the Reform Party. We roll 5d + this value on the party-ideology table to get a result of 23 (20+3), indicating the "name of a color." A roll of 2d on the party-type table comes up a 3, "Alliance." We decide the party is named the Red & Green Alliance (*Alianza de Roja y Verde*, or ALROVE), red and green being the colors of communism and environmentalism respectively.

So there are three parties, the Republican Union, the Reform Party, and the Red & Green Alliance. The first party is by far the largest; it's been in power for decades, if not centuries. The Reform Party used to be a serious opposition party, but it's lost all hope of winning elections and has been torn apart by factional disputes. These disputes have allowed the new, radical ALROVE to win a seat in the last council elections, making conservatives very, very nervous.

LEVELS OF PARTICIPATION

One final detail that may be of interest: How many people actually show up to vote in elections? To find out, roll 2d and add the following modifiers:

Government type 2, Participatory Democracy	0
Government type 4, Representative Democracy	+1
Other government types	-1
No political parties	-3
Only one political party	-1
More than five political parties	+1

Results less than 0 are treated as 1/2, and results greater than 10 are treated as 10. Take the modified die result and multiply it by 10%. This tells you, roughly, what percentage of the eligible electorate actually shows up. (If the result is 10, roll 2d. If this roll is less than or equal to the Law Level, then voting is mandatory.)

Note that high turnout doesn't necessarily indicate that the regime is popular, and low turnout doesn't mean it's unpopular; nor is the reverse necessarily true. High voter turnout can indicate popular enthusiasm, widespread anxiety, powerful political parties, or very easy or convenient voting rules. Low turnout, conversely, can indicate alienation, contentment, weak parties, or cumbersome voting regulations. It's up to the referee to decide what is responsible for turnout rates.

For example, Rio is a Representative Democracy (government type 4). According to this table, we can determine average turnout with a roll of 2d+1. We roll 5 and add 1, so 60% of the electorate votes in Planetary Council elections. Voting rates are a little low but not alarmingly so. We decide that the *Union Republicano* has had a majority in the Planetary Council for so long that many people have lost interest. This might change now that ALROVE has won a Council seat.

ADVENTURES IN DEMOCRACY

Elections, in a perfect world, are decided by rational, reasonable, and well-informed debate. We don't live in a perfect world, though, and the Imperium isn't perfect, either, so expect demagoguery, deception, violence, and dirty tricks to play a big role. This will be bad for voters but good for a game, where adventurers can have fun stuffing ballot boxes, blackmailing candidates, shooting people, and enjoying other civic duties. Here are some of the possibilities for adventure on a democratic world:

- One popular politician has a bit of a drinking problem. The adventurers are asked to follow him around and keep him out of trouble until the election.

- Someone is blackmailing a potential candidate; if the candidate enters the race, the blackmailer will release sordid, embarrassing details to the press. The adventurers are hired to identify this blackmailer and show him the error of his ways (with a fusion rifle, if necessary).

- Voters on a world are very, very partisan. Pitched battles between rival party "gangs" have killed dozens of people. One of the parties hires the adventurers for security at a major campaign rally.

- A very clever psychopath plans to assassinate a candidate. Her campaign manager hires the group for body-guard duty.

- Members of a disenfranchised religious sect or ethnic minority are demanding the right to vote, but masked hoodlums are assaulting, intimidating, and killing demonstrators. Three leaders of this movement have been found together, murdered, and the adventurers have been asked to bring the killers to justice.

- A boozey demagogue is planning to run for high office, but he's keeping everyone guessing by refusing to officially declare his candidacy until the day before the filing deadline. A rival candidate hires the adventurers to kidnap the demagogue for a single day – just long enough to keep him from entering the race.

- The adventurers are asked to hack into a psychiatrist's computer account to retrieve records on a rival candidate. (Unflattering details from these records will be broadcast on the news.)

Adventurers will be asked to break the law in some of these scenarios. Many won't mind, as long as they're well paid, but others will take offense. GMs should ask themselves whether they want to referee starship-flying Watergate Plumbers before they offer opportunities like these.

Balkanized Governments

by Matt Stevens

Published July 25, 2000

Balkanized worlds can be great places for adventure. Countries armed to the teeth, soldiers glaring at each other through barbed wire, wars about to break out at any moment . . . They present all sorts of dangers as well as opportunities for adventurers. This article, the fourth in a series on *Traveller* governments, will help you describe balkanized worlds in more detail. Of course, all of the separate governments on a balkanized world could be friendly and cooperative . . . but what fun is that?

EXPLAINING BALKANIZATION

Fewer than 10% of the worlds in *Traveller* are ruled by more than one state. We can better understand these balkanized worlds if we figure out why they're so rare.

World governments may be balkanized by interstellar governments, popular pressure, or provincial elites. The *Balkanization History Table* suggests why they might want to split a world up, and why these pressures are largely absent in the Imperium.

Interstellar governments may split up a world government. If more than one is involved, they may do so because they can't agree on a single government. If only one interstellar government is in charge, it may divide the territory to keep the "natives" weak and divided. The Imperium's rule is rarely challenged above the system level; its power is too overwhelming. The Imperium seldom shares a world with another interstellar empire, so it rarely has to split a world government for that reason. Nor would it ever feel threatened by a unified world government; no single world would be powerful enough to challenge it.

Popular pressure may force a state to break up. This is often due to religious, linguistic, or cultural differences: One territory demands its own state because it doesn't think it can preserve its culture under a unified government. Imperial culture is remarkably homogeneous. Most Imperial sophonts speaks the same language – Galactic Anglic – and few seem to have strong religious affiliations. In most cases, there is little popular pressure to divide a world into multiple states.

Ambitious elites within the territory may decide to break up the central state. Typically, they do this because the central state is unwilling or unable to deal with local problems, and

because the central government is too distant to stop a revolt. In a high-tech universe, even the most remote territories can remain in contact with the planetary authorities. It's easy for these governments to deal with local problems and to suppress provincial uprisings.

Still, balkanization is possible. This article suggests how it might happen and what the consequences might be.

BALKANIZATION HISTORY TABLE

The history of a balkanized world can be of critical importance. History can be used for local color, part of the library data for a world. It can tell you what conflicts have come up in the past, what issues might lead to conflict in the future, and the opportunities for adventure that might come with them.

First, roll 1d and add 1 if starport type E (1 in *GURPS Traveller*); treat as 6 if starport type X (0 in *GT*). Then roll 1d again – -1 if Law Level is 4 or less, +1 if Law Level is 10 (A) or higher. (In *GURPS*, subtract 1 if the CR is 0 or 1, add 1 if it's 5 or 6.) Treat results less than 1 as 1, and any result greater than 6 as 6 for either roll. Then use these two die results to create a number from 11 to 66 (treating the first die as the "tens" digit, the second die as the "ones") and refer to the table below to determine why this world is balkanized.

11: Years ago, either the Imperium or a megacorporation wanted to purchase some territory on this world (for a naval or scout base, a research station, a mining colony, or whatever). When the local government refused to make a deal, these outside interests organized a phony "revolution" in that territory. A new government was established there, and it was immediately recognized by the Imperium. The world has remained divided to this day. Roll 1/2d+1 for the number of states on the world.

12, 13: The world was naturally divided into different economic "zones." Perhaps agriculture dominated one zone, while mining or industry was predominant in another, so people in different regions had vastly different economic interests. Conflicts over trade or labor policy became so fierce that a civil war broke out between the different regions. Eventually, the war ended with a truce, but the world remained divided. Roll 1/2d+1 for number of states.

14: Years ago, the government on this planet was defeated in an interplanetary war. The occupying power then divided the world into several different states, hoping to leave it weak. Roll 1d+1 for the number of states on the world today.

15, 16: High-tech raiders came upon this world during the Long Night and established themselves as an aristocratic elite. Eventually, the exploited masses revolted against these rulers. The rebels won, and the aristocracy only maintained control over a small area, where they and their more loyal subjects made up a majority of the population. Determine the number of states in power today by rolling 1d+1. At least one state (possibly the state with the starport) will be government type 3, Self-Perpetuating Oligarchy. Add 1 when determining the level of conflict on the world, and subtract 2 from subordinate starport rolls.

21: While many colonists came to this world to make money, others came to establish one or more utopias. These may have been theocracies, communist collectives, nudist colonies, or what have you. These people wanted to be left alone in their “perfect” little societies, while other colonists tried to avoid the “weirdos” next door. Over time, the utopians and the materialists peacefully developed separate and independent states. Roll 1/2d+1 for number of governments on the world today. At least one will be government type 2 (Participating Democracy), type 5 (Feudal Technocracy), or type 13(D) (Religious Dictatorship); government types for other states are determined randomly. Subtract 1 when determining level of conflict on the world.

22-24: This world was once claimed by a number of different multi-world empires. These empires settled their differences diplomatically, by dividing the world into separate “zones,” each dominated by a different colonial power. Eventually, these “zones” were granted autonomy, then inde-

pendence, but the rulers of the new states saw no great reason to unite them under a single planetary government. Roll 1/2d+1 for number of governments. Subtract 1 when rolling for interstate conflict on the world.

25, 26: This world used to be a colonial regime, with a captive government. It was peaceful, for the most part, until the colonial regime decided to make the world a home for a homeless population (this may be a persecuted ethnic group, an alien race, or a population that had escaped from a worldwide catastrophe). The original colonists resented these immigrants, and eventually a civil war broke out. Having gotten itself into a huge mess, the colonial government decided to abandon the world, but only after splitting it into two (or more) separate governments, one made up of the persecuted minority group, the other(s) dominated by the original colonists. Roll 1/2d+1 for number of states. Add 2 to the roll for the amount of conflict in the world.

31-33: This world was conquered and colonized by a non-Imperial empire years ago. It was then acquired by the Imperium and settled by Anglic-speakers. The original colonists, who spoke a different language, became an isolated minority with less commercial power than the new colonists. Eventually, members of this minority held a referendum in their province and voted in favor of independence. The central government granted it, rather than face war. There are 1/2d+1 governments on the world today. Anglic will be the official language in at least one of these states; another language will be used in at least one other state. Subtract 1 on the Level of Conflict Table.

34: At one point, a single royal family ruled this world. Then the children of a dying ruler decided to divide the world between them, rather than place the whole planet under a single throne. Today, the world is ruled by 1d+1 separate governments. Subtract 1 on the Level of Conflict Table.

35, 36: The world was an independent state under a weak but unified government of colonists, but it was taken over by an outside force and placed under captive rule. Many of the colonists refused to accept the new authority and “took to the hills,” living far from the starport and other major cities. Eventually, they set up their own rival governments in the hinterlands. When the colonial power abandoned the world, they left a puppet regime, which now competes with the frontier regimes for control of the planet. There will be 1d+2 states on this world; all but one will have government type 2 or 4 (Participating or Representative Democracy). Add 2 when rolling for interstate conflict, and subtract 2 from subordinate starport rolls.

41, 42: This world used to have a unified federal government. Then the government made a huge mess of things – the details are up to the referee. The provincial governors got together and dissolved the federal government, just to get rid of the screw-ups. Since that point, however, the provincial governments haven’t been able to reunify their world, so it remains balkanized. There will be 1d+2 states on this world.



43: Years ago, a charismatic provincial governor proclaimed independence from the world government. His territory was isolated enough to defend from the central government, which eventually granted it independence. Other provinces might have been granted independence as well during this period. Roll 1/2d+1 to determine the number of governments today. One of these states will have government type 11(A), Non-Charismatic Leader.

44-46: Most sophonts on this world belong to a particular ethnic group, political party, or religious sect. Most of the army, however, belongs to another sect, party, or ethnic group. (You could explain this any number of ways. Perhaps a previous colonial government thought that this group was more “warlike” and recruited from them exclusively. Perhaps a military career doesn’t pay very much, and members of the dominant group are rich enough not to join. A third possibility is that the dominant group is somewhat pacifist and it looks down on military careers.) At some point, the military staged a coup, but the majority stayed loyal to the old civilian regime. These loyalists seized control of certain provinces in the countryside, thereby splitting the world into a number of states. Roll 1d+1 for the number of rulers. The government near the starport is type 10 (A), Charismatic Leader, while others can be determined randomly. Add 3 to the roll for conflict on the world.

51, 52: The world had a unified government until vast mineral resources were discovered several centuries ago. These deposits were concentrated in limited geographic areas, and a megacorporation came in and purchased those areas from the colonists, ruling them without interference from the rest of the population. The megacorporation may still rule in its old domain, or it may have left government in the hands of its old employees once the resources ran out. Roll 1/2d+1 for number of states on the world today. A type 1 government (Company/Corporation) may rule one of the states. Subtract 1 from the interstate conflict roll.

53, 54: At some point, this world revolted against the Imperium, yet some citizens remained loyal, and these loyalists were concentrated in small geographical areas. During the war to reclaim the planet, the Imperium set up one or more independent states for the loyalist population, which kept their independence once the war ended. Roll 1/2d+1 for number of states.

55, 56: A group of revolutionaries have seized the capital, but the rest of the world remains largely outside their control. Military leaders, stationed outside the capital, have set up their own counterrevolutionary regimes. Other revolutionaries, with somewhat different interests than those at the capital, may have also set up their own states. In any case, a civil war has probably broken out between these different micro-states. Roll 1/2d+2 for number of governments. The starport government is either type 10 (A) (Charismatic Leader) or type 12 (C) (Charismatic Oligarchy). Add 3 to the roll for conflict on the world, and subtract 1 from subordinate starport rolls.

61, 62: This world was settled simultaneously by several ethnic groups from Terra during the Rule of Man or the Long Night. They came to this world precisely so they could establish different states to preserve their cultures, and have remain separated ever since. Roll 1d+1 for the number of

states. Subtract 1 when rolling for conflicts on the world. Subtract 3 from Language rolls; all non-Anglic languages will be “old Terran tongues.”

63, 64: This world regressed into barbarism during the Long Night. As the economy collapsed, the government found it could no longer keep order. Gradually, in the face of mounting anarchy, various groups – vigilantes, army officers, survivalists, bandits – created states of their own, which have remained to this day. Roll 2d to determine the number of governments on this world. +1 to the Level of Conflict Table.

65: This is not a colony world; it is the home of a minor alien race. It has never been unified; it has always been divided into different ethnic, linguistic, or religious groups, each with its own rulers. Roll 3d for the number of states on this world. Subtract 6 from Language table rolls; any language other than Anglic will be an “alien language.”

66: As above, but the world has been inhabited by a minor Human race since the days of the Ancients. Again, subtract 6 from language rolls, but any language spoken other than Anglic will be “minor Human language.”

This list doesn’t exhaust the possible ways in which a world can become balkanized. If the GM can think of other paths to balkanization, by all means use them.

WARS, HOT AND COLD

It’s hard to wage an interstellar war. It takes at least two weeks for ships to jump into a system, fight a battle, and jump back home, and unless the ruler comes along, he’ll be completely ignorant of the battle’s progress. Interstellar combat is also incredibly expensive; the cheapest starships cost many millions of credits, and standard battle cruisers can cost billions. Intersystem war isn’t unheard of within the Imperium, but it’s extremely rare.

Within a system, however, war can be quicker and much cheaper, using soldiers, small arms, and artillery, plus a few airplanes or tanks, rather than billion-credit cruisers. TL10 technology can transport troops from one planet-side to another in a matter of hours; communication takes seconds rather than weeks. This suggests that war will be much more common on a balkanized world than between planetary governments that are separated by light-years of interstellar space.

Roll 2d, add the modifier given in the Balkanization History Table, and check this table to determine the level of conflict on a balkanized world.

Level of Conflict

≤ 4 (Low): The nations of this world are at peace.

5-7 (Moderate): There are occasional skirmishes here and there, but no state is at full military mobilization, and conflicts are easily contained with few civilian casualties.

8-9 (High): The world is in the grip of a “cold war” between rival powers. Military spending is high, and there is a sense that a “hot” war between the major powers could break out at any time. For the moment, though, competition is channeled into “low-intensity conflicts” (largely revolutions and civil wars) within smaller, less powerful states, and direct superpower confrontation is avoided.

10+ (Very High): The world is facing “total war” between rival powers, and societies are fully mobilized for national defense. Civilian casualties tend to be high, often as the result of deliberate policy to destroy productive capacity.

If conflict levels are “High” or “Very High,” the world may be classified an Amber Zone, and if it’s “Very High” and the world is TL7 or better, roll 1d: On a 6, at least one state has used nuclear weapons against another. This may lead to Imperial occupation (since nuclear weapons are prohibited by the Imperial Rules of War), and the possible classification of the world as a Red Zone.

Roll 2d a second time. If this roll is greater than the conflict roll, there is some kind of established supranational organization, such as the League of Nations or the United Nations from Terran history.

PETTY STATES

The Universal World Profile (UWP) will tell you the starport status, tech level, and Law Level within one of the world’s many states. But what kind of government will this state have? What kind of governments will other states have? What will their Law Levels be? Will these states have starports of their own? The following sections will answer these questions.

First, we have to distinguish between the primary state and the secondary states. The primary state runs the world’s largest starport; by definition, there is only one primary state on each world. All other states are considered secondary, even if they’re just as large or as powerful. The UWP gives the starport, Law Level, and tech level for the primary state. Starports, Law Levels, and tech levels may be quite different elsewhere.

INDIVIDUAL GOVERNMENTS

Determine the government type for each state, primary and secondary, by rolling 2d-7 + the world’s population digit, just as you would for any *Traveller* world. Add 1 if there are 2-4 states, and subtract 1 if there are 50 or more. Then determine government type normally, but treat all results of 0 or less as Company/Corporate government rather than “anarchy.” (Uncontrolled, anarchic territories would be seized by the states on a balkanized world.)

If the result is Balkanized (government type 7), the world was subjected to multiple waves of balkanization. Roll a second time on the *Balkanization History Table*, pp. 63-65, to determine the number of additional states created. Note that Bureaucratic and Charismatic governments (types 8-12) are more common on balkanized worlds than unified ones with the same population. Military competition between balkanized states forces them to adopt bureaucratic forms of administration; they find it hard to survive otherwise. These states also tend to meddle in each other’s internal affairs, leading to the coups and revolutions that characterize Charismatic governments.

LAW LEVEL

Once the government type is determined, you can determine the Law Levels for all secondary states. Roll 2d-7 + the government code for each state; once again, they’ll have slightly higher Law Levels than world governments with the same population. Interstate violence on balkanized worlds can justify high Law Levels in the name of “national security.”

SUBORDINATE STARPORTS

Interstate competition makes it probable that all states will have starports – no state, after all, would let competitors monopolize interstellar commerce. Roll 1d for each secondary state, add modifiers from the Balkanization History Table, and check the table below to determine the subordinate starport type. (The first value shown is from *Classic Traveller*; the second value is for *GURPS*.)

Primary Starport	Die Roll					
	≤ 1	2	3	4	5	6+
A/V	E/I	D/II	C/III	C/III	B/IV	A/V
B/IV	E/I	E/I	D/II	C/III	C/III	B/IV
C/III	X/0	E/I	E/I	D/II	C/III	C/III
D/II	X/0	X/0	E/I	E/I	D/II	D/II
E/I	X/0	X/0	X/0	E/I	E/I	E/I
X/0	X/0	X/0	X/0	X/0	X/0	X/0

TECH LEVEL

States on a balkanized world may have different TLs, although once again, competition forces all of them to be efficient, ensuring that different states have similar TLs. For each secondary state, compare its starport with the primary starport. If its starport is the same class, its TL is the same as the primary state’s. If the secondary starport has a lower value, add a modifier to the primary state’s TL to get the TL for that state.

Main Starport	Subordinate Starport	Mod.
A/V	B/IV	-1
	C/III	-2
	D/II	-3
	E/I	-4
B/IV	C/III	-1
	D/II	-2
	E/I	-3
C/III	D/II	-1
	E/I	-2
	X/0	-3
D/IV	E/I	-1
	X/0	-2
E/I	X/0	-2



Note: If some parts of the world are habitable while others aren’t, and the primary starport is in a hospitable region, then secondary states in other regions may receive a bonus of 1 or 2 points to their tech level. Do not raise the TL above the primary state TL, however.

LANGUAGES

The vast majority of Imperial citizens speak a language known as Anglic (or Galanglic, short for “Galactic Anglic”), ultimately derived from English. However, other languages, along with obscure dialects of Anglic, are spoken in backwater worlds throughout the Imperium. On a balkanized world, citizens in different states may speak different languages. In some cases, this will be noted in the Balkanization History Table; in other cases, these languages can be determined randomly.

Roll 2d and apply any modifiers given in the Balkanization History Table. Add 3 for starport type A (type V in *GURPS Traveller*), 2 for starport B/IV, and 1 for starport type C/III. Subtract 4 if starport type X/0; subtract 3 if the world lies outside the Imperium. Then check below to determine whether or not citizens speak Anglic.

≤ 3: No one speaks Anglic as their first language, and very few (if any) speak it at all.

4-5: The world’s elite speak Anglic, perhaps as their first language, but the majority speak something else.

6+: The vast majority of citizens speak Anglic as their first language.

Roll 2d to determine the exact language spoken (if this isn’t specified in the Balkanization History Table). Subtract 1 in the Solomani Rim or other Solomani Confederation sectors; add 1 in Vland or other predominantly Vilani sectors. Then check the table below.

≤ 2: Artificial language. An invented language such as Esperanto or Basic English.

3: Alien language. The language of a non-Human race, such as Aslan or a Vargr society.

4: Language of a minor Human race, such as the Dynchia of the Old Expanses or the Ilthara of Reaver’s Deep.

5: Obscure dialect of Anglic. Derived from Anglic but barely intelligible to the Anglic speakers of the Imperium.

6: Old Terran language. Spanish, Hindi, Arabic, and Mandarin are common.

7: Creole mix of Anglic and some other language (roll a second time to determine the second language).

8: High Vilani, the official language of the First Imperium.

9: Language of a minor Human race, such as the Darrians or the Syleans.

10: Artificial language. An invented language such as Esperanto or Basic English.

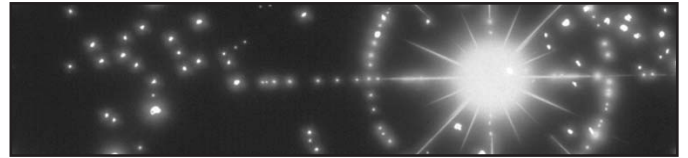
11: Old Vilani language. A language once spoken on Vland which has survived in isolated pockets to the present.

12+: Alien language. The language of a non-Human race, such as the Aslan or the K’kree.

Alien languages are rare, because Humans find them very difficult to speak (due to differences in voice boxes and the brain). If an alien language is used, non-Humans may make up a majority of the population.

If an “artificial” language like Esperanto is specified, the country may have been settled by enthusiasts of the language. It’s more likely, though, that original settlers spoke a number of other languages, and they adopted the new tongue to put everyone on an equal level. (This was why Hebrew became the official language of Israel; if they had chosen Yiddish or English, speakers of those languages would have had an advantage. Hebrew made everyone equal.)

Note that Creole dialects and obscure dialects of Anglic may be intelligible to Anglic-speakers after a bit of practice. In *GURPS* terms, these language skills are Mental/Easy, with default levels of IQ-4.



ADVENTURES ON BALKANIZED WORLDS

Balkanized worlds are great if you want to make money from war or espionage. They’re perfect settings for mercenaries and secret agents, as well as for diplomats and peacekeepers. Here are three scenario seeds that can be used in nearly any campaign:

● A well-respected politician is assassinated and his killer escapes capture. Journalists and other opinion-makers claim a rival government is responsible, and there’s talk of war to avenge their beloved statesman. A young woman approaches the group and says she knows who killed the politician. She claims it wasn’t a foreign agent, but she can’t prove her story, and asks the party to gather evidence and avert a war if possible.

● A military dictatorship on a high-conflict world is about to buy a megacorporation’s “foolproof” missile-defense shield. One of the corporate engineers approaches the group, claiming the “shield” is fatally flawed, unable to protect a country from a nuclear attack. He worries that the military regime, feeling invulnerable, may launch missiles at its rivals. He’s also worried that his employers will kill him if he stops the multibillion-credit sale, and asks the adventurers to protect him.

● A war just ended. Dissidents in the defeated country staged a rebellion against their dictator, expecting the winner to help them. However, the two sides signed a peace treaty that left the dictatorship intact, free to demolish the rebellion any way it sees fit. The squad is hired to sneak into this country, reach civilian allies of the rebellion, and help them escape before the dictator’s forces overwhelm rebel-controlled territory and massacre its inhabitants.

You’ll find that many Amber Zone adventures take place on balkanized worlds. Examples include “Rescue on Ruie,” “Salvage on Sharmun,” “Ticket to Swords,” “Chariots of Fire,” and “Embassy in Arms.” You can also turn to two *Classic Traveller* adventures, if you can find them: *Double Adventure 3, The Argon Gambit*, and *Double Adventure 6, Night of Conquest*.

Religious Dictatorships

by Matt Stevens

Published August 29, 2000

This article will help define Theocracies and Religious Dictatorships (government type D in *Classic Traveller*). Many fantasy and science-fiction theocracies are cartoonishly crude, run by ignorant, superstitious fanatics prone to torturing heretics on the rack, burning witches at the stake, or sacrificing nubile virgins on blood-soaked altars. No one would deny that these atrocities have been committed, but there's more to religion than bigotry and foolishness. This article will try to help GMs come up with fairly realistic religions and theocratic states that might appeal to people with high double- or even triple-digit IQs.

DEFINING "RELIGION"

Religion, like science, explains why things happen. Specifically, it explains why people suffer, although it might explain other things, too. Unlike science, however, religions go beyond pure description; they also tell people how they ought to behave to alleviate suffering. While certain sciences also try to explain and treat human problems – for example, medicine might identify both the cause of a disease and a possible cure – religions promise justification and treatment for just about any tragedy. Unlike mainstream medicine or psychiatry, there are few meaningful questions which religions don't think they can answer.

Note that belief in a god or gods is not necessarily part of a religion. Certain sects, such as the Jains of India, are either atheistic or refuse to speculate on the existence of deities. Nor is a belief in the afterlife essential to religion; modern-day Judaism, for instance, either denies life after death or has no firm opinion on it. Religions are defined not by gods, souls, and spirits, but by their universalistic worldview, a "Guide to Everything" one needs to know or do.

Some "religions," therefore, can look modern and pseudoscientific. Their treatments may be based on "regulation of personal-Q force" or release of "trapped orgasmic energy"; they may have "doctors" or "therapists" rather than priests; and they may blame difficulties on one's "high concentration of omega particles" rather than the ire of the evil god Ugablatch. They might even develop technology based on their wild, pseudoscientific principles. When designing a religion for *Traveller*, you may want to pattern it after bizarre modern psychoanalytic and pseudoscientific cults, as well as "traditional" religions like Christianity, Zoroastrianism, or Egyptian mortuary cults.

RELIGIOUS DICTATORSHIPS AND TECHNOLOGY

Religious dictatorships tend to have fairly low tech levels compared to other worlds with the same population. There are a number of reasons why this might be so.

It is often said that religion and science are incompatible, and that religious institutions are inherently hostile to advanced technology. It's true that some religious groups (such as the Amish) are hostile to technology in general, while others are hostile to certain kinds of technology (the Catholic Church condemns birth control pills, Christian Scientists avoid medical treatment, Afghanistan's Taliban outlaws TV sets and cameras). Yet there's no inherent opposition between the two. For example, Hasidic Jews run many computer stores in New York, and American religious fundamentalists have enthusiastically used radio, cable TV, and the Internet to spread their views. While the relationship between pure science and religion is a bit more strained, it isn't always hostile. Religious schools are often great centers of learning, and a number of clergymen have been great philosophers, mathematicians, or scientists (Roger Bacon, for example, or Gregor Mendel).

Nevertheless, while religion may not be hostile to technology, religious dictatorships almost certainly are. These regimes tend to be provincial and isolationist; they follow rigid worldviews and can be intolerant of dissent. The problem is not that they know nothing of science, but that they learn nothing because they're hostile to many new ideas. Even if their worldview is compatible with modern science, they don't allow free inquiry to flourish, and because of this, offworld scientists avoid these worlds as much as possible.

Religious dictatorships may contribute to scientific stagnation, but at the same time, low-tech worlds may be more partial to religious fundamentalism; causality may run in the opposite direction. Poor, suffering masses may find more consolation in religious teachings. Tales of magic and miracles may sound more convincing to the scientifically ignorant than they would to sophisticated listeners. Finally, those who live in provincial, isolated societies may find a high-tech, cosmopolitan, interstellar culture particularly threatening, and this might make them more receptive to a self-proclaimed Messiah who promises to throw out the infidels and restore a Golden Age.

CHURCH-STATE RELATIONS

As noted before, *Traveller* government types tell you more about a world's administrators than they do about the government's "official" leadership, and this is just as true for religious dictatorships as any another regime. Under government type D, administrative power is in the hands of religious leaders, but the nominal head of state may be a secular official.

Any number of arrangements between religious and secular leaders may be possible in a religious dictatorship. Roll (2d-7 + Law Level) and check the table below to specify them. (In *GURPS*, use the Control Rating $\times 2$ instead of the Law Level.)

<i>Roll</i>	<i>Church-State Relationship</i>
≤ 8	Church guardianship. The church has been given an explicit role in the world's constitution. This gives the church a veto on any policy it dislikes, along with any additional powers it might have.
9-11	Parallel state. The church has a broad, independent power base, allowing it in practice to enforce its own laws, veto policies it dislikes, and/or dominate the bureaucracy.
12	Secret society. The government appears to be independent of the church, at least on paper. In reality, the government is controlled by a religious secret society, like the Templars or the Bavarian Illuminati. This society may or may not be controlled by the "official" church. (Roll 1d; the church controls it on a 1 or 2, otherwise the society is independent.)
13 \geq	Theocracy. The church (or a charismatic cult) rules without distinction between church and state.

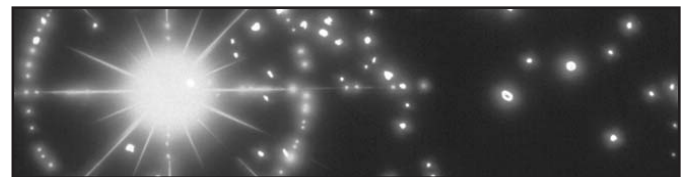
If the government is not a "theocracy," you can roll (2d-7 + Law Level) a second time, and check below to determine the "official" government type:

<i>Roll</i>	<i>"Official" Government</i>
≤ 8	Representative Democracy. Government positions that are not reserved for religious leaders may be elected directly by the people. See <i>Democratic Governments</i> (pp. 59-62) for more details.
9	Unusual. Government positions may be filled by lot, may be awarded to contest winners, may be inherited by the "reincarnation" of the previous ruler . . . The GM can use his imagination.
10-13	Monarchy. A hereditary monarch serves as the nominal head of state. This monarch may legitimate his rule in explicitly religious terms. For example, he may claim to rule with the "mandate from heaven" or he may claim divine ancestry.
14-15	Military Government. A right-wing military dictator, who came to power through a <i>coup d'etat</i> , serves as nominal head of state. See <i>Charismatic Governments</i> (pp. 51-54) for more details.
16 \geq	One-Party Autocracy. A right-wing, authoritarian political party rules the world, at least on paper.

CHURCH ORGANIZATION

Religious orders make the major decisions in a theocracy, so the world's official constitution is less important than the organization of the church. Roll 2d-7, add the world's Law Level (or its Control Rating $\times 2$), and check the table below.

<i>Roll</i>	<i>Organization</i>
≤ 6	Congregational. The church is decentralized, and priests (or "ministers") are elected by their congregations. These ministers, in turn, may elect a central church assembly.
7	Presbyterian. Like "congregational," above, except that ministers are responsible to lay "elders" in the church rather than the congregation as a whole.
8	Mystery cult. A highly secretive and centralized cult, only open to a select group of "initiates."
9-10	Episcopal. The church is a hierarchical organization, under a Supreme Leader who is elected for life by a college of high priests.
11	Monastic. Monastic organizations, which have minimal contact with the laity, dominate the leadership of a highly decentralized church.
12	Hereditary caste. A highly decentralized religion, in which ritual duties are reserved for a revered, hereditary caste.
13	Religious dynasty. The church is a hierarchical organization, under a hereditary leader (possibly a descendant of a god or a revered prophet).
14 \geq	Charismatic. The church has no formal organization at all. There is simply a single messianic leader and his followers. This leader claims unique insights, powers, or a privileged relationship with God. (He or she may even claim to be a god, or the descendant of one. Roll 1d; if this result is equal to or higher than the world's tech level, this leader claims divine status.)



RELIGIOUS ATTRIBUTES

It would be foolish to talk about theocracies without referring to their religious beliefs. The next few sections will help you determine four attributes of any given religion: their view of God, the rules they impose, the spiritual consequences of breaking these rules, and the religion's position on the afterlife.

GMs who would like to skip these tables and make up religions of their own should feel free to do so. I recommend you look through an encyclopedia of comparative religions for ideas, or turn to game supplements like *GURPS Religion* or the *Complete Priests' Handbook* for second-edition *AD&D*.

“GOD VIEW”

The following is a simplified version of the table in DGP’s *World Builder’s Handbook* (sadly, long out of print). Roll 2d-2 and add the world’s TL, then check the table below.

Roll	Conception of Deity
0-2	Animism. Every object (or at least living object) or natural phenomenon has a spirit that needs to be honored, or at least placated.
3-4	Polytheism. There are multiple gods, either arranged in a hierarchy or of more-or-less equal importance.
5-6	Dualism. There are two antagonistic gods, each representing mutually exclusive “universal” qualities, such as good and evil, light and darkness, life and death, male and female.
7-11	Monotheism. There is a single, all-powerful (or nearly all-powerful) divinity.
12	Deism. God(s) created the universe, but takes no part in daily affairs.
13	Pantheism. God and the universe are one. “All is God, and God is All.”
14-15	Agnosticism. It is impossible to know whether or not there is a God. In any event, it doesn’t matter; deliverance from suffering can be achieved with or without His help.
16≥	Atheism. There is no God or gods, and Humans have to rely on their own efforts.

RELIGIOUS RULES

Visitors to a religious dictatorship should be aware of the religious rules the government imposes. Roll 2d a number of times equal to the world’s Control Rating; for rules systems other than *GURPS*, roll a number of times equal to half the Law Level minus 1 (round fractions up). Each time you roll, add your result to the previous die total, and check the Religious Rule table. This procedure is summarized below:

LL	CR	Rolls
≤ 8	3	2d, then add 2d, then add 2d again
9-10	4	2d, then add 2d, then add 2d again, then add 2d a third time
11-12	5	2d, then add 2d, then add 2d again, then add 2d a third time and a fourth
13≥	6≥	2d, then add 2d, then add 2d again, then add 2d a third time, a fourth time, and a fifth time

Then, take any rule that seems to contradict the others and drop it. (For example, if you’re told that “physical violence is prohibited,” while “regular animal sacrifices” are performed, you should drop one of these two rules unless you can justify the contradiction.) Then come up with a theological framework that can justify all of them.

On the following table, a “prohibited” result can be changed to “mandatory,” and vice versa, if the GM chooses.

Roll	Religious Rules
2	Photographs, paintings, and other “representational” artworks are prohibited.
3	Prostration before religious icons, symbols, or statues is required.
4	Photographs, paintings, and other “representational” artworks depicting the deity are prohibited.
5	Regular ritual bathing is required.
6-7	Adultery and/or premarital sex is criminalized.
8	Mandatory fasting periods.
9	It is illegal to charge interest.
10	Mandatory fasting periods.
11-12	Mandatory daily prayer times.
13	Taboos against touching “dirty” things (such as dead bodies or animals).
14	All forms of birth control and abortion are outlawed.
15	The giving of alms is required.
16	Mandatory fasting periods.
17	The giving of alms is required.
18	Contact with “unbelievers” is restricted.
19-20	There are mandatory “days of rest,” in which citizens must stay indoors.
21-22	Dancing, singing, and/or theater-going prohibited.
23-24	Meat-eating is prohibited.
25-26	Strict (non-vegetarian) dietary rules.
27-28	Divorce is not available.
29	Prohibitions against mentioning dead relatives.
30	Periodic animal sacrifices are required.
31-32	Killing of animals prohibited.
33-34	No liquor allowed.
35-36	Cutting hair and/or clipping fingernails prohibited.
37-38	Physical violence is prohibited in all circumstances.
39	Regular human sacrifices are performed, using criminals, POWs, or randomly selected victims.
40	Physical violence is prohibited in all circumstances.
41	Ritual weapons must be carried at all times.
42-43	Citizens must regularly go to confession and repent for their sins (whether they sinned or not!).
44	Certain clothing colors prohibited (or prescribed).
45-46	The brains of the dead eaten for their knowledge.
47	Certain forms of genital mutilation required.
48	Children (or women or men) are forbidden to participate in certain/all rituals.
49	Children regarded as more pure, given ritual duties.
50-51	Men and women are prohibited from looking at each other or seeing each other privately.
52	Taboos against contact with “high manna” figures.
53-54	Makeup, “ostentatious” clothes, or other ornamentation is prohibited.
55-56	Advanced technology restricted (reroll if TL7+).
57-59	Women (or men) must be completely covered whenever they venture outdoors.
60-61	It’s a crime to look directly at religious leaders.
62-63	Non-religious medical services prohibited.
64-66	Sex is completely outlawed.
67-68	Contact with “unbelievers” is severely restricted.
69-70	Contact with “unbelievers” is completely outlawed.
71-72	Suicide will soon be demanded of all residents.



For example, let's look at a world called "Ohm" with a Law Level of 12. The first roll is a 9, "it is illegal to charge interest." We add 2d to this result and get 14, "all forms of abortion and birth control are outlawed." We add 2d again and get 16, "mandatory fasting periods." A fourth roll brings the total to 23; "meat eating is prohibited." Finally, the fifth roll of 2d is added to 23 to get 28, "divorce is not available."

We decide that Ohm's religion is patriarchal, ascetic, and pacifist, like a cross between Catholicism and Jainism. It teaches that men are the "guardians of life," which is truly sacred. Killing is prohibited except under the most extreme circumstances; even plant life is semi-sacred. Gluttony is a sin because even vegetarian consumption is considered no more than a necessary evil, so eating too much is a wasteful sacrifice of living things. Mandatory fasting periods are imposed to combat it.

Now, we have to explain two anomalous rules: The prohibitions against divorce and against interest. Here's the explanation I came up with for the divorce prohibition: The only justification for divorce, they would argue, is emotional or physical cruelty. Yet they would also argue that all forms of cruelty are prohibited under their religion. Therefore, they would claim that divorce would never be justified in a good Ohmist family. (We may not find this reasoning convincing, but it sounds good to the religious hierarchy and they make the rules.)

As we noted, the religion declares that life is sacred and killing is prohibited. Yet surely killing someone by neglect, by denying them food, water, or shelter, is just as sinful as killing with a weapon? The Ohmists believe that all men are obligated to look out for each other, and no one has the right to "exploit" another. Interest, they declare, is one of the most despicable forms of "exploitation," but other forms of "exploitation" (such as "unfairly" low wages) are also prohibited.

Note that even if you disagree with these rules (as I do), you would admit that they are not completely senseless.

Every rule has a justification, even if it isn't a very convincing one. When designing religions for *Traveller*, resist the temptation to create something completely preposterous. Most doctrines follow their own peculiar logic, even if their rules don't make much sense to outsiders.

RULES AND DIVINE SANCTION

Visitors to a religious dictatorship will follow these rules out of fear of punishment. What about believers? They too may fear religious vigilantes and the secret police, but they might also follow these rules for more spiritual reasons; not only would they fear the state, they would fear the wrath of their god(s) as well.

To fully understand the local theology, you may want to answer these questions: What are the spiritual consequences of rule-breaking? How does it affect one's relationship with the Divine? You can reach tentative answers by rolling 2d, subtracting 4 if the religion is atheistic or agnostic, adding 4 if it's dualistic or monotheistic. Then check the table below.

<i>Roll</i>	<i>Effect of Transgression</i>
≤ 2	People who break the rules aren't necessarily "punished" at all. Worshipers are expected to follow rules out of a desire to be good rather than out of fear of punishment.
3-8	No specific figure is enforcing these rules. It's simply a Law of Nature that bad things will happen to you if you break these rules. If you step in a puddle, your feet will get wet; if you eat meat on Fridays, you'll explode into flames (or whatever); it's simple physics.
9-10	A god (or gods) imposed these rules, and those who break them are defying God's (or the Gods') authority. No excuses are accepted; those who defy the god(s) are punished, regardless of their intentions.
11-12	As above, but God (or the Gods) will forgive rule-breakers if they broke the commandments unwittingly, or were coerced into doing so.
13	As above, but God (or the Gods) never laid down any specific "rules"; their instructions were either very general ("be kind to animals") or very obscure ("those who sow bitter fruit will reap a cruel harvest"). Religious philosophers interpreted these sayings as best they could in an effort to establish specific guidelines.
14	God or the Gods demand devotion and worship, which is far more important than slavish observation of the rules. Rule breaking is frowned upon largely because it shows a lack of devotion.
15-16	You cannot get on God's (or the Gods') good side simply by following the rules. God has already decided who He likes and who He doesn't. Rule-breaking is seen as a sign that one has "fallen from grace," but it isn't a cause of that fall.

LIFE AFTER DEATH

Most religions (but not all, as we've noted) believe in some sort of life after death. To determine a religion's beliefs about the afterlife, roll 2d-7, add the world's God View, and check the table below.

Roll	Belief
≤ 4	There is life after death. Most spirits go to the same (fairly unpleasant) underworld, regardless of how their hosts behaved. If someone was denied a proper burial, however, his spirit might stay behind and haunt the living.
5-6	Roll again to determine views on the afterlife (rerolling fives or sixes). In addition, religious rituals offer the possibility of genuine immortality.
7	There is no life after death – except for the devout. God or the Gods will resurrect the righteous after the coming Apocalypse.
8-9	There is a Heaven and a Hell. Those who behave piously will be accepted into Heaven, while the wicked will go to Hell for an eternity of torment.
10	As 8-9 above, but Hell is only a temporary abode. Eventually, even the wicked will be accepted into Heaven (for a just God would not let souls suffer for an eternity).
11-12	Reincarnation: After death, a person's soul is reborn in another body. The just are reborn as powerful humans, spirits, or even gods, while the wicked are reborn into "lower" forms (animals, monsters, demons, or what have you).
13	As 11-12 above, but the truly wise or devout can escape the cycle of life and rebirth, and enjoy a true eternal rest.
14≥	There is no afterlife, no "soul" or spirit, and no way to cheat death.



If a religion's God View is "agnostic" or "atheistic," and it denies the possibility of life after death, then its followers probably don't consider it a "religion" at all. Instead, they may call it a "science" or even a "philosophy," even if it fits our definition of a "religion."

ADVENTURE SEEDS

Weird religions have been a staple of fantasy and science fiction for over a century. It's easy to see why, since they can offer a lot to a story: colorful detail, fanatical passions, and an aura of magic and mystery. Here are a few scenario seeds you can use on a religious dictatorship, or on any world with a devout population:

- An increasingly unpopular, and deeply depressed, religious dictator wants to end his own life, so he hires the group to make a "martyr" out of him. (He claims that suicide would demoralize his followers and discredit his church.) Unfortunately for the adventurers, the dictator has no intention of ending his life. He's decided that an unsuccessful assassination attempt would serve to discredit his critics. So the adventurers will find that security at the dictator's palace is a lot better than they were told; the guards are ready for them and will shoot first, ask for identification later . . .

- A megacorporation is about to close an extremely lucrative deal with a religious dictatorship. But before the negotiations can close, a revered icon starts to weep. The public says it's a sign from God, and demands that the government break off negotiations. The dictator agrees to suspend them until the supposed "miracle" is investigated. Since both the government and the megacorp want to close the deal, they hire the adventurers to study the icon and provide a "scientific" explanation for what happened.

- A revered book of prophecy claims that the Apocalypse will come after six "signs," including a solar eclipse, a virulent plague, an attack against "men from the sky," and the birth of a red goat. It's common knowledge that a group of religious fanatics are breeding goats with increasingly reddish coats, hoping to instigate the Apocalypse so they can go to Paradise while the unbelievers go to Hades. It's also known that a solar eclipse will occur in one week. Local and Imperial authorities are worried that religious zealots will try to release plagues from local biomedical facilities and attack Imperial personnel at the world's starport. The group has been hired to help prevent any more mischief.

- A theocratic oligarchy claims to know the secret to eternal life, a secret they share only with their most loyal followers. All of which could be written off as standard religious flimflam, except that there's increasing evidence that some oligarchs really are immortal, or at least extremely long-lived. Offworlders suspect that the oligarchs have stumbled upon extremely effective natural anagathics, and a megacorporation hires the group to go planetside and investigate.

Also feel free to read *Classic Traveller: Double Adventure 6 – Divine Intervention*, which takes place on a low-tech religious dictatorship.

Technology

Traveller is a game for those who love technology, and this passion is reflected in *JTAS*'s readership – and its pool of

contributors. And starships are by far the most popular subject of the “technogeeks” among *Traveller* fans.

Cortez-Class Salvage Ship

by Brandon Cope

Published March 28, 2000

Wherever starships travel, there will be a need to recover those unable to return. There are many types of salvage ships, of which the *Cortez* class is one of the smallest and most common.

Designed originally for use by shipping corporations to recover stranded merchant vessels, the *Cortez* class has since found its way into government and private use. The Imperial Navy purchased an undisclosed number to recover some of its lighter non-combat ships, the Scout Service operates several as part of its repair fleet, and many others have been put to use at Class V and Class IV starports as recovery vessels (working in conjunction with the *Blakeway*-class rescue ships). Several older ships, retired from active service, have been purchased by individuals and small salvage companies (salvage doesn't pay well enough to cover the cost of buying the ship new for private owners or small corporations, whereas large corporations can simply write it off as an operating expense). While most private owners are legitimate (most of the time), many are no better than pirates (and some, in fact, *are* pirates) and some pirate bands use stolen *Cortez*-class ships to haul badly damaged prey back to base. The ship is popular with some larger Vargr corsair “fleets,” which gives the ship a poor reputation in some systems. Note, however, that a *Cortez*-class ship, by itself, is undergunned and quite slow, making it an unlikely choice as a solo pirate ship.

The ships of the *Cortez* class have the capability to repair most disabled ships, and can carry any ship up to 800 tons in displacement and still maintain Jump-1. There is an absolute limit of 1,500 stons mass (enough to carry any starship in *GURPS Traveller* except the *Dragon*-class SDB, *Broadsword*-class mercenary cruiser, a lightly loaded *Stellar*-class subsidized liner, unloaded Oberlindes cargo liner, or Tukera long-liner from *Far Trader*).

In most cases, the captain will try to repair a damaged ship using his large complement of technicians and shop facilities, since carrying a ship with the external cradle seriously reduces the ship's already poor performance. This is especially true if he can't reach another star system with Jump-1.

The class was originally named after explorers with a reputation for plunder and exploitation, but the ships are now used by so many different groups that there is no longer a standard naming scheme.

GENERAL LAYOUT

The ship has three and a half decks, each roughly 190 ft. (57.8 m) long and 60 ft. (18.2 m) wide. The full decks are 10 ft. (3 m) high, the half deck 5 ft. (1.5 m) high.

The top deck carries the bridge and eight staterooms (six single occupancy, two double occupancy), as well as the sickbays, low berths, and a 0.5-dton ship's locker. Immediately aft is a 75-dton cargo bay and one of the 50-dton-capacity space docks (holding one 40-ton fuel skimmer and one 10-ton launch in most cases). One sandcaster turret is on either side of the bridge and an airlock is adjacent to the bridge.

The second deck houses 14 staterooms (all double occupancy), another 75-dton cargo bay and the other 50-dton-capacity space dock.

Next is the half deck, which holds all of the ship's fuel and the fuel processor.

The last deck holds the labs (one of which is almost always devoted to metallurgy), all logistics modules, two staterooms (for the engineers and lab techs), a 25-dton cargo hold (normally full of spare parts) and all the drives.

The external cradle machinery is located on the bottom of the deck. Both laser turrets (port and starboard) are accessed from engineering. One airlock is in engineering and another is adjacent to the logistics modules.

Each of the 75-dton cargo bays can be accessed by port and starboard doors, as well as an internal door leading to that deck's spacedock. They are normally used to carry cargo from salvaged ships not worth recovering in full or that need to be reduced to the 1,500-ston limit. Each large hold has a 60-dton-capacity collapsible fuel bladder in the corner. If possible, one fuel bladder and at least one fuel skimmer are kept full, giving the salvage ship the capability of making an extra Jump-1 if not carrying another ship.

VARIANTS

Most variants are one-off, custom jobs, since the *Cortez*-class salvage ships are too specialized for many other uses. Most corporate and some government ships use different small craft: The 40-ton fuel skimmers are often replaced with 40-ton pinnances, while some military ships carry five 10-ton fighters in place of one skimmer and launch. Private owners rely heavily on the skimmers, however, and rarely replace them with other craft (though financial difficulties might force them to sell one or both).

A handful of these ships were pressed into service during the Fifth Frontier War as auxiliary assault tenders, carrying and maintaining 200-ton assault riders, but they were not especially well-suited to that task, so they were converted back to normal duties shortly after hostilities ended.

In safer areas or Imperial space, a less common unarmed version is available; it trades the four turrets for top-mounted external cradles with 1,500-stons capacity.

CAMPAIGN USES AND ADVENTURE SEEDS

A variant merchant campaign could be based around a privately owned salvage ship. Although the payments on a used ship are low (such ships usually cost 10-60% of new cost, with quality proportional to cost), so are the odds of striking it rich. Many salvage captains use their cargo space to carry speculative cargo to make up for potential shortfalls. Also, with her good repair capabilities, some captains use their ship as a portable shop in systems with poor starship-repair facilities (Class I or II starports for the most part) or for clients who don't want any "Imperial entanglements."

A one-shot adventure can be based on a salvage ship finding a derelict floating far from normal space lanes. Too bad there's a hungry entity on board . . . (Yes, any ship could encounter such a derelict, but few ships other than a salvage vessel are actually looking for them.)

The crew may find themselves adrift in space from a drive failure or aborted pirate attack. A *Cortez* shows up and offers aid – for an outrageous price . . . which must be paid in advance! While this technically is a violation of Imperial law (see *Signal GK* on pp. GT59-60 and *Salvage* on p. T:FT60), the party may not be in a position to wait for a

more honest captain to come along – especially if there are pirates in the area.

GURPS TRAVELLER STATS

Crew: Captain*, Pilot*, Navigator*, Sensors/Communications Officer*, Doctor*, 2 Medics, Chief Engineer*, 2 Engineers, 2 Lab Technicians, up to 22 Mechanics, Technicians, and extra Engineers, 4 Gunners, 4 Small Craft Pilots. Total Crew: 42 (max).

* These crewmen have single-occupancy staterooms; the rest double bunk.

Design: 800-ton USL hull, DR 200. Modules: 1 Basic Bridge, 1 Engineering, 87 Maneuver, 24 Jump, 160 Fuel, 2 Collapsible Tank (60 fuel each when filled), 100 Space Dock (2 40-ton Fuel Skimmers and 2 10-ton Launches), 12 External Cradles* (1,500-stons capacity), 24 Staterooms, 2 Low Berths (capacity 8), 2 Utility, 1 Fuel Processor, 3 Labs (one is devoted to metallurgy), 5 Logistics**, 2 Sickbays, 2 Turrets with 2 Lasers each, 2 Turrets with 2 Sandcasters each (100 canisters normally carried per sandcaster), 175.5 Cargo (+1 per turret).

* See p. T:SM67 or p. T:FT136 for details.

** See p. T:FI35 for details.

Statistics: EMass 1,538.2, LMass 2,721.7. Cost MCr 139.5504, HP 60,000, Size Modifier +10.

Performance: Accel 1.28Gs/1G (cradle empty/full), Jump 2 (Jump 1 if up to 800 dtons carried in cradle).



SALVAGE PROCEDURE

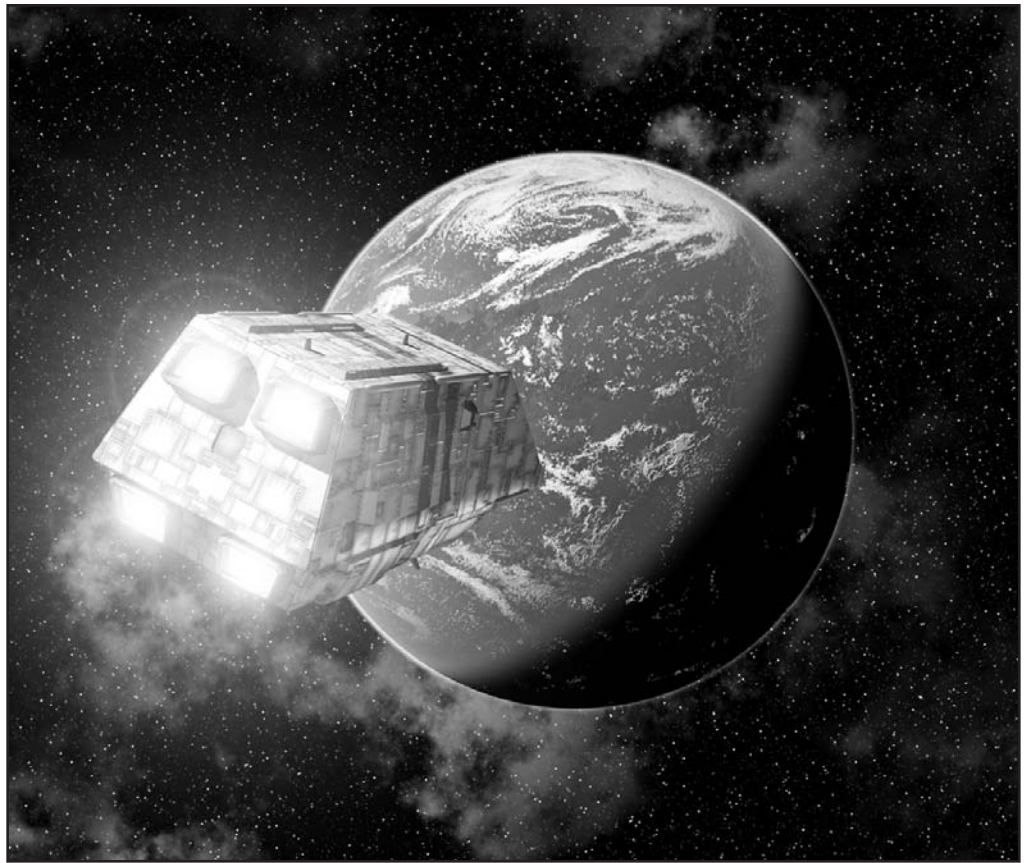
There is little official material covering the salvage of starships. The following guidelines are loosely based on international maritime law, but are greatly simplified for gaming purposes (GMs can hand-wave any differences as the natural result of ocean vs. space conditions and Vilani influence).

When a salvage team discovers a ship that is drifting without power or sending a distress signal, the captain attempts to communicate with the ship's crew. If he gets a response, he asks if aid is desired. If no, he pulls away and leaves the ship to its fate. If yes, and the situation appears unlikely to imperil his crew, he pulls alongside and sends a team to determine the extent of the damage. A licensed salvage team may charge Cr1,000 to Cr5,000 per hour for repairs, negotiated in advance but paid only if the ship is returned to a starport or operating condition. An unlicensed team gets paid whatever they can persuade the ship's captain or (failing agreement) the closest admiralty court to award them. Note that neither contradicts Imperial Navigation Act 103 (pp. GT59-60 and p. T:FT60). If the stricken ship's captain finds the fee too high, he can request that the salvage team leave.

If the hail to the ship receives no response other than an automated distress beacon or a living passenger, the captain sends a team of technicians and a medic on board. They attempt to locate any injured crew or passengers, or anyone in low berths. If any crew members are still alive, they are treated until they regain consciousness, and the captain again repeats the offer of aid.

If no crew member is alive, the salvage team may recover the ship. They do not own it (yet), but may take whatever steps are necessary to (a) keep the damaged ship from being a danger to other shipping and (b) return the ship to the nearest Class III or larger starport (smaller starports usually cannot handle the process). Any surviving passengers may be dropped off at the first available starport (with their personal baggage). If any had freight on board that was recovered, the salvage captain may make payment arrangements for the recovery, or, if the two parties cannot agree, a lien (worth 10-50% of the freight's value, determined by local starport officials – an admiralty court is not required in such a situation) is placed on the freight, to be paid as soon as the freight is sold or taken off planet.

When a recovered starship is taken to a starport, the Port Authority assumes possession of and responsibility for the ship. If the ship has been missing for less than seven years, it still belongs to its owners, so a lien (10-50% of pre-loss value, the exact amount determined by the local admiralty court, based on many factors) is placed in the ship. The Port Authority then attempts to locate the owners, a process that may take several weeks (most professional salvage teams



hire a local lawyer to handle the case in their absence; the lawyer will take 10-60% of the court award or sale price [see below] as payment). If it has been missing for more than seven years and was insured, then the insurance company has likely paid off and is now the owner. The lien and location process is the same, though the process usually takes half as long. If the ship has been missing more than 100 years, it is declared a derelict and is completely the property of the salvage team. Any ship that belonged to a currently existing government is still the property of that government, regardless of how long it has been missing; a 1-5% finder's fee is usually awarded.

If the ship's owners refuse to pay the amount awarded by the court, the ship is sold at auction. Usually, the government gets half the sale price (in the form of fees and taxes) and the owners and salvage team one quarter each. If the ship is a derelict, it may still be sold at auction (with the government getting one quarter of the sale price) or it may be sold as scrap (the government taking 10% of the sale price). Since derelict vessels are rarely worth more than 10% of their original value (usually closer to 1%), most are sold as scrap (use 10% of the original cost of the hull plus 1% of the total original cost). If, for some reason, the salvage team decides to keep the derelict, the only fees are the normal ones for ship's registration and berthing.

If the guidelines above lead one to assume that salvage teams don't make much money, then the reader has reached the right conclusion. Income is infrequent and most is lost to government fees, taxes, and lawyers. Just enough money can be made to keep a ship in business, forever looking for that derelict treasure ship.

Designing Deck Plans

by Andrew Akins

Published April 11, 2000

Nothing fleshes out a starship design in *Traveller* more than a set of deck plans. Many consider a design without a deck plan to be incomplete – the design may describe a ship, but a good set of deck plans can bring the vessel to life. In *Traveller*'s original "little black books," the Type A Free Trader seemed a rather unassuming vessel. But later, the deck plans for the *Beowulf*-class defined rather than described this staple of *Traveller* history. Deck plans are a way of increasing player involvement – people look at a cockpit on a deck plan and think "my character sits there." They make it easier to visualize what is happening in an adventure, and serve as a focus for the gaming session. They can be printed for use with miniatures or counters.

Designing deck plans for ships of your own design is a worthwhile and relatively simple thing to do. This article will describe some of the tools available for this task, as well as provide some tips for successful deck-plan design.

TOOLS OF THE TRADE

The individual wanting to create deck plans has a great variety of methods to choose from. Each method has strengths and weaknesses.

The simplest, cheapest, and sometimes fastest method is the oldest: pencil and paper. Many deck plans start out this way – a rough sketch on the back of a napkin, a quick drawing made for some players. Paper plans have the advantage of not requiring special equipment, and with a little effort can look quite professional (particularly if drafting tools can be used). Using pencil is also quick – a new design can be thrashed out in minutes. It is often helpful to begin your deck plans on paper, even if you intend to eventually transfer the work to a computer program. The major disadvantages include archiving and quality: the only way to make copies is to use a photocopier, and it takes a lot more work using pencil to produce a quality set of prints. Besides, not everyone is a draftsman.

The remaining methods all involve using a computer. Graphics programs are an excellent way of making deck plans. The results are often professional-looking, and can be easy to produce with a little practice. By using a computer, your work can be saved, given to friends, even posted on the Internet. Overall, the only downside to using a computer to make your plans is the necessity of purchasing a computer and the software, and the learning curve of the software you choose. (These are not inconsiderable obstacles, but if you're

reading this [the original article], you more than likely already have the computer, at least . . .)

The most basic option is to use a low-end paint program. Nearly every modern operating system comes with such a program (an example would be *Microsoft Paint*). If you bought a computer in the last decade, you probably have such a program lurking on the hard drive. These programs have the advantage of being free and generally simple to use. However, they lack features that might make your plans easier to create – such as layers.

A step up from free paint programs is a professional program, such as Photoshop, PhotoPaint, Paint Shop Pro, or Canvas. These tools do everything the low-end paint programs can do, and a whole lot more. One of the most important features is *layering* (see p. 77). Most of these programs also provide plug-in filters and modules that can produce a variety of effects, lending your work a professional look. However, these programs can be expensive, and some of the features can be hard to learn.

Another type of graphics software that can be used is a vector-based program, like CorelDraw or Visio. Unlike paint programs, which draw pixel by pixel, vector-based programs actually draw shapes that can be altered and manipulated individually. This can be a great asset if you need to rearrange a plan. Vector-based graphics often come with symbol libraries, a great boon to deck-plan creators. But like professional paint programs, vector programs can be expensive and tricky to use.

The kings of the computer graphics world are the professional CAD (Computer Aided Design) packages. These programs, such as AutoCAD, are used by engineers and architects to design objects. CAD programs are the most feature-loaded and by far the most powerful deck-plan software available. Unfortunately, CAD programs are usually *extremely* expensive, and can be very difficult to learn.

A final type of software is worth mentioning – the dedicated RPG deck plan/map program. An example is Campaign Cartographer 2, by Pro Fantasy Software (reviewed in *JTAS*; see article 51). In many ways, this type of software is the best for the job, because it is actually tailored to the work. Often these programs come packaged with symbol libraries specific to RPGs. Some can interface with other programs designed to help GMs prepare their campaigns. The only downside to these is their maturity – they tend to be less advanced than the more mainstream graphics programs. Also, a great many are designed more for terrestrial maps than deck plans – although most can do both.

Of course, the above methods can be combined. For the deck plans in *Alien Races 2* and *Alien Races 3*, the initial work was performed on paper, then the detailed deck plans were created in CorelDraw. Next, each deck plan was transferred to PhotoPaint, where some effects were applied and the plan prepared for production.

One obvious omission from the above list is a category called Modeling/Rendering Software. These packages are used to create three-dimensional images of objects, and can produce stunning pictures of your ships. Examples of modeling software include Lightwave, 3DStudio Max, Truespace, and POV-Ray. These packages are wonderful for creating pictures of ships, vehicles, and other 3D features, but are not very useful for deck plans, which are two-dimensional. However, it is worth mentioning these packages because creating a 3D model of your ship can be done in addition to building a deck plan, for a complete view of your starship creation. Many CAD programs can output files that modeling programs can use, allowing you to build your 3D image from your deck plan. Other programs allow you to import a 2D image as a backdrop – to guide you as you build your model.

The building of a 3D model is beyond the scope of this article. However, here are two pieces of advice: First, always build the deck plan first, then “wrap” your model around it – it is much easier to adjust the model than to cram components in a model that is too small or misshapen. Second, if interested in 3D modeling for *Traveller*, be sure to read Jesse DeGraff’s column on the subject in *JTAS* (article 53).

HINTS AND TIPS

Following are some tips for deck-plan design, primarily targeted at computer-based creation methods.

THE GOLDEN RULE: THE FUDGE FACTOR

If you wish to retain your sanity while creating deck plans, the most important rule is the fudge factor – as long as the plans are reasonable, they are acceptable. It is highly unlikely that you’ll come up with plans that match the stated design 100% accurately. Many people have formulas describing how accurate plans need to be: 5%, 10%, or more off may be acceptable. The best rule is, if the deck plan looks good and appears to be close to the stated design, you can safely ignore whatever minor differences there may be in volume.

BREAK DOWN THE DESIGN

The first step is to make a list of the components of your deck plan, along with the amount of volume/spaces each takes up. Then, consider the scale you wish to draw at. The standard *Traveller* scale is 1.5 meters to a single square, with most squares being drawn at 1/4 inch (if you want to use the deck plan with counters or miniatures, you may want to consider 1/2 inch or larger). In the *GURPS* universe, you can safely replace meters with yards – yes, your total volume will be a bit off, but considering the fudge factor, you should be

close enough to be acceptable. *GURPS* also uses hexes rather than squares.

Once you have the component breakdown and ship scale, determine how many squares each component will need. With a standard 3-meter ceiling, each displacement ton of space requires two squares. Note that it is often easier to draw squares than hexes, so use layers to add hexes later in the process.

SKETCH IT OUT

Before you truly draw your design, take the time to roughly sketch the basic layout. It is much easier to prototype your design with scribbles than the precise lines of a computer program.

CONSIDER LAYOUT

One of the primary decisions a designer must face is the layout of the plan. There are two basic layouts, each with advantages. They are named for the direction that the thrust of the ship runs with relation to the decks of the ship.

The most familiar is a parallel layout, where the decks of the vessel lie in the same plane as the thrust of the ship. Most real-world vehicles – airplanes, trains – operate in this fashion. This layout is also common in the *Traveller* universe: the scout/courier, free trader, far trader, and subsidized merchant all use this layout. It has the benefit of being easy to conceive, and many people think that the resulting designs are more stylish (and easier to adventure on/in).

The second method of layout is perpendicular: the thrust of the ship runs 90 degrees off-axis of the decks (usually toward the bottom). Technically, this is an excellent design, as the acceleration of the ship will be against the deck – working with the gravitic compensators rather than against them. But a more practical reason for this kind of design, from the designer’s view, is that you can place a larger ship on a piece of paper. A long, narrow parallel design may have to be broken up onto several pages – whereas a perpendicular design can put one or more decks on a page.

There are other possibilities as well. The laboratory ship, for example, has a ring layout that technically runs parallel to the thrust, but in a rather radical way. Other ships combine the two methods; the mercenary cruiser is designed as a perpendicular ship, but carries its cutters in a parallel fashion. While this is acceptable, take care to ensure that such designs provide for the awkward parallel-to-perpendicular shift in gravity.

LAYERS, LAYERS, LAYERS

Quite possibly the most powerful tool that professional graphics programs can provide is *layering*. With liberal use of layers, a highly detailed deck plan can be created in little time.

Layers can be thought of as transparencies, lying one on top of the other. By drawing on different layers, you can control how your design looks, and can group items logically for faster editing. Since a given layer can be locked, hidden, moved, or even deleted, your productivity is greatly enhanced.

Consider the deck plans for *Alien Races 2*. The bottom layer is a simple background, showing the page borders. The next layer is the hex grid for the scale. Following the hexes, there are layers for bulkheads, interior partitions, doors, and furniture. By breaking these items into layers, I can apply characteristics to all of the entities on a layer at the same time. For example, every line on the bulkheads layer was assigned a 2-point width. Also, when making some changes to the interior partitions, the furniture layer could be hidden, to remove the clutter from the screen. Finally, the plans have a text layer, for the legends and descriptions.

Layers can also be used to rapidly create variants. Consider the *Sulievan* and its cousins the *Seeker* and the *Blakeway*-class rescue vessel. Each of these vessels has the same exterior shape – thus they could all have the same exterior-bulkheads layer. But the interiors are different – so hide the layers you don't want and show the ones you do. You now have a single set of plans that work for three very different vessels.

If your program supports layers, *use them*.

SYMBOL LIBRARIES

Next to layers, symbol libraries can be a deck-plan artist's best friend. Even if your program comes with libraries, you should start to accumulate your own. Having a collection of symbols for common doors and furniture can speed up your work and make your drawings consistent. I have my own symbol libraries, which I use for the deck plans I do for SJ Games. (Provided as links in the original *JTAS* article, these URLs are listed below.)

Deck-Plan Symbol Collection

[gifbin/2000/1_4_150.zip](#) – 1/4" GIFs, 150 dpi, 221K.
[gifbin/2000/1_4_300.zip](#) – 1/4" GIFs, 300 dpi, 454K.
[gifbin/2000/1_4_symb.zip](#) – 1/4" CorelDraw format, 47K.
[gifbin/2000/1_8_150.zip](#) – 1/8" GIFs, 150 dpi, 159K.
[gifbin/2000/1_8_300.zip](#) – 1/8" GIFs, 300 dpi, 299K.
[gifbin/2000/1_8_symb.zip](#) – 1/8" CorelDraw format, 46K.

Hex Grid

[gifbin/2000/hex14_150.zip](#) – 1/4" GIFs, 150 dpi, 164K.
[gifbin/2000/hex14_300.zip](#) – 1/4" GIFs, 300 dpi, 377K.
[gifbin/2000/hex14.zip](#) – 1/4" CorelDraw format, 9K.
[gifbin/2000/hex18_150.zip](#) – 1/8" GIFs, 150 dpi, 300K.
[gifbin/2000/hex18_300.zip](#) – 1/8" GIFs, 300 dpi, 711K.
[gifbin/2000/hex18.zip](#) – 1/8" CorelDraw format, 16K.

TEMPLATES

A template is simply a starting point for your drawing. For the *GURPS* books, a template was made consisting of the drawing scale and page borders. Thus, these elements did not have to be redrawn for each plan.

THE LITTLE THINGS

When designing your plans, try to consider the little details – elements that will lend some credibility to your design. Some things to remember/consider:



- Restrooms.
- Break rooms (on large ships).
- Small offices.
- Storage closets.
- Galley, common areas.
- Conduits and maintenance spaces.
- Tactical command centers.
- Fighter pilot ready room.
- Armory.

● Proper air locks (old *Traveller* designs break this a lot – a single door to the exterior of the ship, rather than a real airlock: two doors).

Design for your crew. During the work on the *Alien Races 3* Hiver vessels, we decided that the standard 1-square-wide hallways in most *Traveller* ships really didn't make a lot of sense for the Hiver, who are wider than Humans. Thus, the hallways were made 2-squares wide. Other examples could be Droyne "nests,"

Ael Yael flying rooms, Zhodani psionic training rooms, Aslan dueling circles, and other elements that serve as reminders that *Traveller* can be alien.

Remember, starship design is not precise – there is the fudge factor to consider. As long as the above items do not take up a significantly large amount of space, they can be included in your plans without being explicitly in your design. However, if the room is rather large, it probably should be accounted for.

PROOFREAD

Once you have designed your masterpiece, have someone look it over before publishing it or using it in a game. Check your list of locations and items that must be in the plans to ensure that they are present. It is easy to forget something simple, which can render your design comical at best – unusable at worst. Often, it helps to set a design aside for a while. When you go back to it, you will often catch a surprising number of mistakes.

LEARN YOUR PROGRAM

Perhaps the greatest tip is that you should practice with your programs of choice, to become familiar with the tools they provide. Many of the more popular programs have third-party books available at your local bookstore that can help you.

PUBLISHING ON THE WEB

A final note: You have created the perfect deck plan; now you want to show the world your work. One of the best ways is to publish it on the Internet. It is important to realize, however, that many people might not be able to read the format you drew in, particularly if you used a CAD or vector-based package. You must first export your design to a web-friendly format. Excellent candidates include GIF, PNG, and Acrobat. GIF and PNG are well-known, easily viewed formats. Acrobat is an excellent way to exchange your work, so long as the people

you are trading with have an Acrobat viewer. Note that JPG is not listed here; JPG uses a compression scheme that often blurs deck plans. It is not a good format for line drawings.

If exporting to GIF and PNG, consider exporting to different scales. Two good choices are 150 dpi and 300 dpi – the former is an excellent resolution for viewing on the computer, while the latter is useful for printing.

With a little work and the use of some available tools, anyone can take their favorite ship designs and create excellent deck plans for them, breathing a little life into their slice of the *Traveller* universe.

RESOURCES

Here's where to find some of the tools you'll need.

Paint Programs

Canvas (for Linux, Mac and Windows operating systems), by Deneba Systems, Inc., at www.deneba.com.

GIMP (Windows), by the GIMP Design Team; (Linux), at www.gimp.org.

Paint Shop Pro (Windows), by Jasc Software, Inc., at www.jasc.com.

Photoshop (Mac/Windows), by Adobe Systems, Inc., at www.adobe.com.

PhotoPaint (Linux/Mac/Windows), by Corel Corporation, at www.corel.com.

Vector-Based Programs

CorelDraw (Linux/Mac/Windows), by Corel Corporation, at www.corel.com.

Illustrator (Mac/Windows), by Adobe Systems, Inc., at www.adobe.com.

Dia (Linux), by the Dia Design Team, at www.lysator.liu.se/~alla/dia/.

CAD Programs

AutoCAD (Windows), by AutoDesk, Inc., at www.autodesk.com.

1/4" Scale Symbols

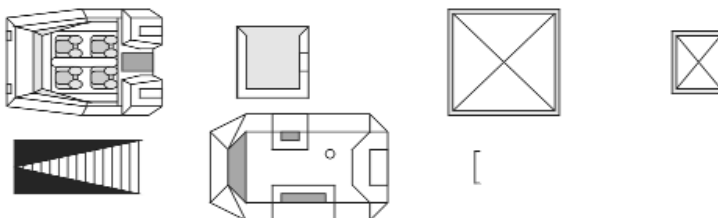
Valves



Hatches



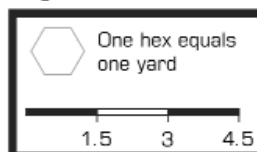
Miscellaneous



Furniture

	Accel. Couch	Chair	Bed	Bunk	Fresher	Low Berth
Imperial						
Aslan						
Droyne						
Hiver						N/A
K'Kree						N/A
Solomani						
Vargr						
Zhodani						

Legend



DenebaCAD (Mac), by Deneba Systems, Inc., at www.deneba.com.

LinuxCAD 2000 (Linux), by Software Forge, Inc., at www.linuxcad.com.

RPG Mapping Programs

Campaign Cartographer 2 (Windows), by Pro Fantasy, Ltd., at www.profantasy.com.

Fractal Mapper (Windows), by NBOS Software, at nbos.com.

Naval Architecture for *GURPS Traveller*

by Christopher Thrash

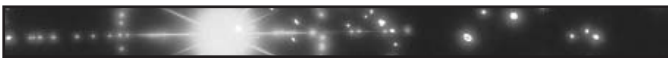
(with input from Tom Bont, John Buston, Juliean Galak, William "Commander X" Prankard, Robert Prior, Thomas Schoene, and others who shall remain nameless).

Based on the modular ship design system by David L. Pulver

This article complements and extends the modular ship design system in *GURPS Traveller* (pp. GT149-162), with particular attention to naval hardware and the construction of naval vessels. The material presented here is confined to TL10 (Imperial average) and TL12 (Imperial maximum) in order to remain compatible with *GURPS Traveller*. You must have a copy of those rules to use this supplement.

Units: All weight and masses are given in short tons (2,000 pounds), all volumes in displacement tons (500 cubic feet), all prices in megacredits (MCr1 = Cr1,000,000), all power requirements in megawatts, and all ranges in both miles and 10,000-mile *GURPS Traveller* space-combat hexes. Ship sizes (also called "hull class") are always given in displacement tons. Where two masses are given separated by a slash, this should be understood as empty/loaded mass. Ranges are calculated for vacuum; generally, divide this range by 10 to obtain range in atmosphere. Power requirements are included for information, and to permit estimating the true size of a vessel's power plants; they do not otherwise figure into the design sequence (unlike *GURPS Space*). Any requirement less than 0.5 MW was considered negligible.

A note about design: Remember that, while the *GURPS Traveller* starship design system is modular, in most cases the ships it produces are not. The components forming a specific system may be spread throughout a ship, rather than forming a compact bundle of the appropriate volume. The reverse is true of the ship's power plants, which are specific devices in the engineering compartment (their number equals the number of Engineering modules selected), which have their volume incorporated in many other systems.



SHIP TYPES

There are five broad types of ships in service with the Imperial Navy: scouts, escorts, cruisers (including carriers), and battleships (including battleriders). All other ships, including fleet tenders, are classified as auxiliaries. These types are described below. Tonnages and armor values are given in ranges; "light" versions should be at the lower end of both tonnage and armor, "heavy" versions at the upper end of both, and "armored" versions at the low end for tonnage

Published March 7, 14, and 28, 2000

but the high end for armor. Armor values should be based on TL12 (the tech level of the Imperium and its most capable adversaries in 1120) unless playing in a lower-TL setting.

Turrets for all types are standardized at 3 displacement tons. They should have an absolute minimum of DR 100, and not exceed DR 8,000 (DR 2,000 at TL10) or 1/2 the ship's armor, whichever is less. (Note that this is upward of 96 short tons of armor per turret.)

Scouts: The Scout Service controls a wide variety of craft up to cruiser class, but scouts proper are vessels up to 200 tons designed for exploration, survey, and courier work. In time of war, such ships are pressed into military service, but have negligible combat value. Squadrons of all types incorporate scout ships (the *Suliemman*-class is the most common), generally four to five at any given time. Scouts are also sometimes organized into separate ScoutRons (short-hand for "Scout Squadrons") for special missions.

Escorts: Escorts are small ships of up to 5,000 tons, meant to be light support craft for larger ships, primarily cruisers. Escorts are also widely used for convoy protection and commerce raiding roles. Escorts include destroyers, frigates, corvettes, etc.

Auxiliaries: A wide variety of supporting ships and boats of the Imperial Navy are deployed in the Spinward Marches – tankers, supply ships, troop transports, assault ships, jump tugs, mobile space docks, hospital ships. Many don't fit into the other categories presented, so they are commonly classed as auxiliaries. Size is variable, but comparable commercial ships of 50,000 tons or more were unknown in the Spinward Marches as of 1105 (although 10,000- and 20,000-ton bulk carriers were in use).

Scouts, escorts, and auxiliaries should be resistant to turret weapons: minimum armor DR 100, maximum DR 16,000 (DR 4,000 at TL10). These ships may or may not carry nuclear dampers or meson screens (in the same range of DR), depending on their role and TL. Auxiliaries converted from civilian use will have the minimum armor possible, to save weight and money.

Cruisers: Cruisers are the smallest ships to carry the large spinal weapons needed to cause serious damage to a large armored ship, although most are too lightly armored to stand in the line of battle. They form the cadre of commerce raiding task forces and provide fire support for planetary invasions.

Sizes range from 20,000 to 100,000 tons. Cruisers serving with a battle fleet are generally grouped in CruRons of four to eight ships, while individual ships or pairs of cruisers are used to form the hard core of scouting or raiding groups. Cruisers are the workhorses of the Fleet – they can also carry troops (assault cruisers) and deadfall ordnance for planetary assault (strike cruisers). They have moderate to high acceleration (4-5 G) and jump numbers (jump-4 or -5), depending on role.

Carriers: Carriers are designed to carry large numbers of small combat boats, termed either fighters (if less than 100 dtons) or riders (if more than 100 dtons), for use in the screen of the battle fleet or in support of a planetary invasion. Given the limited weaponry of fighters and light boats, they are little more than an annoying distraction in a major fleet action, but they provide extended reconnaissance and strike capability, and can be extremely effective against ships of cruiser class or less. Carriers have generally low acceleration themselves (1-2 G) with good jump capability (jump-4), but their fighters are capable of 6 Gs or more.

Cruisers and carriers should carry nuclear dampers and be immune to turret weapons and resistant to bay weapons: DR 18,000-30,000 (DR 12,000-20,000 at TL10), both armor and meson screens.

Battleships: As their name suggests, battleships are jump-capable vessels which are, due to their armament and protection, capable of standing in the line of battle. While battleships (or dreadnoughts, as the first-rate examples are often called) generally have little better in the way of primary armament than cruisers, their extensive secondary batteries render them virtually immune to missile and small-craft attack while their bulk provides a tremendous ability to absorb damage and keep fighting. Battleships are limited in acceleration by their massive armor (maybe 2-3G) and maintain a standard jump-4.

Battleriders: A battlerider is a non-jump-capable capital ship generally carried on a large (up to 1,000,000 tons) fleet tender. Such a tender carries a complete Battle Squadron (BatRon) of four to eight vessels. Battleriders themselves are equivalent to battleships, but without the requirements for jump drives and fuel, they can be constructed much smaller and faster for the same weaponry.

Battleships and battleriders should carry nuclear dampers and may have black globe force fields (if available). Their armor and meson screens should be immune to bay weapons and resistant to spinal mounts: DR30,000-80,000 (DR20,000-80,000 at TL10). Fleet tenders are generally constructed as dispersed hulls, and so effectively cannot be armored.

Cruisers (including carriers) and battleships together are considered capital ships, a designation with historical and social, as well as tactical, significance. Battleriders may or may not be considered capital ships, depending on who is doing the considering.

CREW REQUIREMENTS

Every starship requires a crew to operate and maintain it. In general, the crew of the ship must provide enough personnel to operate all machinery and man all weaponry. The actual

number of personnel required for the ship must be computed based on the drives, weaponry, and other equipment carried by it. If the ship is under 1,000 tons, then the rules on pp. GT149-150 should be followed. For ships 1,000 tons and over, the rules given below should govern.

Command Section: The ship should have a commanding officer, an executive officer, a computer officer, two navigation officers, and a communications officer. The section should also have some support personnel, ratings equal to 50% of the total officers in the section. On large ships (over 20,000 tons), the number of personnel in the command section should amount to five per 10,000 tons of ship.

Engineering Section: Engineering crew requirements are listed in the descriptions of each drive and power module. Additional mechanics and technicians (life support, electronics, etc.) may be required to meet maintenance man-hour requirements (see *Statistics*, p. 94). The section should include a knowledgeable chief engineer, a second engineer, and several petty officers. There should be 10% officers and 20% petty officers.

Gunnery Section: The ship should have a chief gunnery officer and at least one petty officer for each type of weapon aboard. A spinal mount should have a crew of one per 100 dtons of weapon (round to the nearest whole number); bay weapons should have a crew of at least two; turret weapons should have a crew of at least one per battery. The gunnery section should have 10% officers, and 30% petty officers.

A weapon cannot be fired in combat unless it has an operator. However, this may be a gunner, a non-gunner operating at default, or a computer. Some weapons may be manned by ship's troops during combat operations.

Flight Section: If the ship has any launched craft, it should have a flight control officer, crew for each craft, and at least one maintenance person per craft. Launch tubes should have a crew of at least 10, which will include a flight supervision officer and a preponderance of petty officers.

Medical Section: A chief medical officer, plus one full-time medic or assistant per additional 50 people aboard. Automeds (three per sickbay at TL12, two at TL10) can replace medics, but a ship should retain at least one sophont medic per sickbay (p. GT154) or military sickbay (p. 89).

Service Crew: The ship itself may have a requirement for other sections, which provide basic services, including shops and storage, security (especially if there are no ship's troops aboard), food service, and other operations. Allow two per 1,000 tons of ship or 100 other crew, whichever is more; three per 1,000 tons or 100 crew if there are no ship's troops.

Ship's Troops: Most ships 1,000 tons and over have a marine (or military) contingent aboard, which ranges in size from a squad to a regiment – from three per 100 tons of ship to three per 1,000 tons. Such forces are organized according to the standards of the service from which they are drawn, but are assigned to the ship; their equipment should be consistent with the tech level of the ship. Ship's troops often fill the role of security forces aboard the ship, and are used for military adventures by the ship's commanding officer where necessary. They are also used for damage-control parties, manning of some weapons, and boarding actions.

Ship's troops often get bunkroom accommodations, though this is avoided whenever possible. They also require roughly one armory per 20 troops, in addition to special facilities for storing battledress ("morgues," p. 87) if so equipped.

Specialists: Large ships, especially military vessels, will have full-time officers and specialists for intelligence, liaison, electronic warfare, etc. There may also be science crew, cargo specialists, etc.

WHY HAVE THESE GUIDELINES?

Few (if any) naval vessels are produced by a single designer working in isolation, without constraints on resources or fitness for purpose. Instead, they are designed by teams, to specifications drawn up by committees, to meet conflicting requirements of mission, flexibility, lethality, survivability, and cost. Actually creating a new class of vessel requires extensive space trials to identify and attempt to fix problems (see pp. VE200-204); even so, there is a limit to how many cycles of find-the-flaw, fix-the-flaw any organization will tolerate. Every vessel that flies is the result of hundreds of compromises, large and small.

These guidelines represent the procurement standards published by the Imperial Navy's Bureau of Ships (BuShips). BuShips expects that new ship designs offered in response to Requests for Proposals will adhere to these standards. Designs not meeting these standards are considered "inadequate"; although some redundancy and over-engineering is good, any design exceeding these standards is likely to be rejected as "excessive" or "not cost effective."

In game terms, this keeps the balance between naval weapons and armor within playable bounds, making for a faster, more interesting game (and incidentally, one that approximates the results of naval warfare under *High Guard*). It is entirely possible to construct vessels within the *GURPS Traveller* modular ship design system that exceed these guidelines. If that's what the GM wants for his campaign, there's really nothing to stop him.

STEP 1 - HULL DESIGN

Standard hulls are constructed according to the hull table on p. GT151; custom hulls make use of several options for more efficient or specialized design. Starships range in size from 100 to 1 million displacement tons (dtons); larger vessels are theoretically possible, but have not yet been built.

STANDARD HULL

GURPS Traveller ships use the basic options of TL10 or TL12, medium frame, standard materials, and either non-streamlined or Very Good streamlining with the Lifting Body option. The following table extends that on p. GT151 for extremely large naval vessels:

CUSTOM HULL

Ship designers may desire non-standard hulls to attain different design goals. When designing custom hulls, the following options are available. Use the following formulas:

- Surface area (SA, in sf): (hull class × 500) raised to the 2/3 power, multiplied by 6
- Mass (ston): SA / 1,000
- Cost (MCr): SA × 0.00005 (multiply cost by 2.4 for Streamlined hulls.)
- Hit points: SA × 1.5

Hull Class	Volume (cf*)	Area (sf*)	Hit Points*	Mass TL10	Mass TL12	Cost	Size Mod.
200,000	100	1.3	1.95	1,300	650	65/156	+14
500,000	250	2.4	3.6	2,400	1,200	120/288	+15
1,000,000	500	3.8	5.7	3,800	1,900	190/456	+16

* In millions.

Size Modifier

Hull Class	Size Modifier
6	+5
20	+6
60	+7
200	+8
etc.	etc.

Each increase by a factor of 10 equals +2 size modifier. If the vessel's hull class falls between two entries on the table, use the higher one.

HULL OPTIONS

Custom hulls can be built using different strengths of frame or non-standard materials. Multiply the cost, mass, and hit points by the factors listed for the options chosen.

Frame

	S-LT	EX-LT	LT	MD	HV	EX-HV
<i>Cost</i>	0.1	0.25	0.5	1	2	5
<i>Mass</i>	0.1	0.25	0.5	1	1.5	2
<i>HP</i>	0.1	0.25	0.5	1	2	4

Materials

	V Cheap	Standard	V Expensive		
	Cheap	Expensive	Advanced		
<i>Cost</i>	0.2	0.5	1	2	5
<i>Mass</i>	2	1.5	1	0.75	0.5
				10	0.375

COMPARTMENTALIZATION

Vessels are divided into airtight compartments with interior walls and pressure doors. For extra weight and cost, vehicles can have "Heavy" compartmentalization (masses 10% of hull mass) or "Total" compartmentalization (masses 20% of hull mass). Either costs MCr0.01 per ston of weight added.

Most naval vessels should have additional compartmentalization, which increases the amount of damage required to fully depressurize a ship; a hull is no longer sealed if it has lost 10% of its hit points (20% if the vessel has heavy compartmentalization, 50% if total). Compartmentalization also increases the strength and frequency of pressure-tight hatches and bulkheads (pp. S109, S119), increases the hull's resistance to leaks in exotic atmospheres (p. S103), and helps prevent damage from fires onboard (p. VE185).

ROBOTIC SHIPS

For a ship that can be run completely by computer, with no crew, double hull cost (cumulative with any modifiers above) to incorporate built-in servos that let the robot maintain itself, etc. Such vessels are severely restricted by Imperial safety regulations (starships cannot legally be operated on interstellar flights without a crew, for instance). There is nothing to prevent these provisions being added to a *crewed* ship, however; this represents a high degree of automation in the ship's systems. Robotic ships are occasionally used as in-system gas and ore haulers on routine runs where passengers are not carried.

Other major powers and most independents have similar restrictions. The Hiver Federation is the notable exception: Hivers make extensive use of robotic vehicles and spacecraft.

DISPERSED HULLS

A dispersed hull is simply a structure with a minimum of open-frame armor, to which components are attached. The hull itself cannot be sealed or pressurized; instead, separate sub-hulls are constructed and attached to the frame to provide pressurized environments. Dispersed hulls are common at low TLs (to save weight) and for military and commercial jump tenders, because a dispersed hull can launch and recover all carried craft at once.

Select a hull from the hull table or create a custom hull; this provides the framework. Dispersed hulls cannot be streamlined or have any sensor masking. A maximum of (DR 100 × structural hit point factor) of “open frame” armor may be added. Open-frame armor protects normally against collisions, but provides no protection against explosions, beams, bullets, or other small projectiles (optionally, there is a 2-in-6 chance of hitting the frame). Open-frame armor has one-fifth normal weight; since cost is based on weight, this makes it one-fifth as expensive.

All inhabited portions of the ship (bridge, engineering, staterooms, or any component with a power plant slice) must be installed in one or more pressurized sub-hulls. Turrets and weapons bays need not be included, as they already constitute separate compartments. Sub-hulls are constructed as normal hulls (often of super-light frame strength) and armored and sealed normally. Sub-hulls may not have external surface features (hardpoints, external cradles, sensor masking, etc.) or streamlining, as they are contained within the primary hull.

STEP 2 - TURRETS AND BAYS

Turrets: Turrets are described on pp. GT151-152. Reduce the number of turrets by one for every 100 dtons of spinal mount (round to the nearest whole number).



Multiply weight and cost in the table (p. 84, or on p. GT151) by all the factors used to design the vessel's hull.

Up to 10 turrets may be linked together to form a *battery*, aimed and fired by a single gunner. This is normally done to increase firepower and reduce crew requirements. All turrets must be on the same side of the ship and carry the same weapons. Each additional weapon increases the battery's effective rate of fire (see p. GT174). Battery assignments may be changed at will, so long as sufficient gunners are available.

Bays: Large weapons may be mounted in bays. Bays are available in large and small sizes (for 100-dton and 50-dton weapons, respectively), and two types: internal and external. Internal bays reserve space for hull-mounted bay weapons; external bays are huge turrets. Bays must be installed during construction. Weaponry in bays is easily removed and replaced at a suitable shipyard or spacedock as the need arises. Multiply external bay weight and cost by all the optional factors used to design the vessel's hull.

One bay (regardless of size or type) takes the place of 10 turrets. For example, a 10,000-dton ship may have up to 100 turrets, but could instead have installed 80 turrets and two bays. The weaponry need not be specified during construction. Weaponry in bays may be of five different types: meson guns, particle accelerators, high energy weapons (plasma and fusion guns), repulsors, and missile racks.

Empty bays may store cargo; internal bays may hold small craft as well. Vehicles and craft may be carried in otherwise unused bays at 50% wastage (a 100-dton bay holds 50 dtons of vehicle or craft); a bay may launch one craft per turn.

Internal bays have no structural requirements. The cost and mass are for a hatch and air pumps, so that they can be used as hangar or cargo space when empty.

Internal bays were standard in *Classic Traveller's High Guard* naval architecture rules, but the actual plans of several well-known vessels (particularly the *Azhanti High Lightning*-class cruisers) employ external bays.

System	Internal Volume	External Volume	Mass TL10	Mass TL12	Cost
Turret	1	3	0.83	0.41	0.041/0.097
Small Internal Bay	50	–	1	1	0.05
Large Internal Bay	100	–	1	1	0.05
Small External Bay	10	50	6.5	3.3	0.33/0.78
Large External Bay	20	100	10	5	0.5/1.2

STEP 3 - ARMOR

Decide on an armor material and Damage Resistance (DR), calculate total surface area (p. GT152), and then use the following table to determine weight and cost. Internal bays are under the hull, and do not require separate armor. Guidelines for how much DR a given ship requires are on pp. 80-81.

Armor Material	Mass	TL10 Cost	TL12 Cost
Titanium Alloy	0.000125	0.002	–
Durasteel	0.000075	0.004	–
Crystaliron	0.00005	0.012	0.002
Superdense	0.00003	0.04	0.004
Bonded Superdense	0.00002	–	0.012

Mass: Multiply the figure in the table by total surface area and desired DR to get total mass of armor.

Cost: Multiply cost factor for material and TL by total mass to get cost.

Jump Grid: Starship hull armor, and the hull armor of non-starships designed to be carried externally by starships, automatically includes a jump grid (if desired) when constructed of expensive or advanced materials (MCR0.012/ston or greater).

STEP 4 - OTHER SURFACE FEATURES

Jump Grid (TL9): A jump grid allows a jump field to conform to the shape of a ship, resulting in more efficient use of jump capacity. All vessels constructed at TL9+, with Expensive or Advanced hull armor (MCR0.012/ston or greater), are assumed to incorporate a jump grid in their hull (this includes all standard designs from *GURPS Traveller*).

Jump grids may be added to a ship after construction at any class IV or V port meeting the criteria above (double cost at Class IV ports).

Psi Shielding (TL8): Interferes with the use of Telepathy (friendly or hostile) through the hull of the ship. The shielding protects as if it were a Mind Shield used by a telepath with a skill of 3 and a Power of (TL-2)×2 (see p. B167).

Surface Feature	Mass	Cost
Jump Grid/9+	0.000025	0.00005
Psi Shielding/8+	0.00005	0.0001

Multiply the mass and cost by the total surface area of the vessel.

STEP 5 - COMPONENT MODULES

Some of these modules have appeared previously in *GURPS Traveller* sourcebooks, particularly *GT: Star Mercs* and *GT: Far Trader*. They are repeated here for completeness.

POWER, PROPULSION, AND FUEL SYSTEMS

Naval vessels should have multiple Engineering systems (at least three, but four is more likely) for redundancy, damage control, and maintenance. Each module represents the core of a separate power plant, with an appropriate fraction of the ship's total power generation capability.

Note that when recreating a ship with existing deck plans (for example, the *Azhanti High Lightning*-class,) each separate power plant requires its own power core and thus Engineering system.

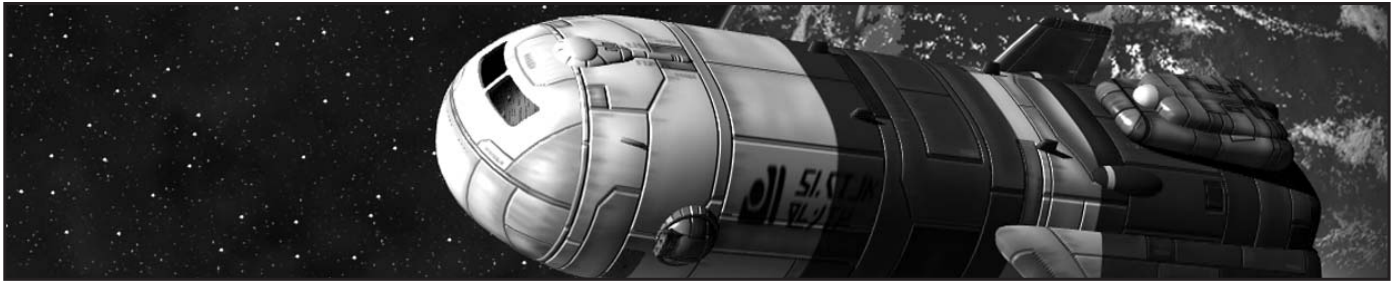
SMALL-CRAFT BRIDGE ADD-ON

This system includes a startup fusion power plant, life support for five, and a two-man airlock. The TL12 version also includes one bunk. The design is compatible with the hardened bridge option, and uses some of the waste space in the bridge system. A craft with one of these add-on packs does not need an engineering system.

System/TL	Space	Mass	Cost	Capacity
Bridge Add-On/10	0.5	1.76	0.32	5
Bridge Add-On/12	0.5	1.46	0.16	5

JUMP DRIVES

Important Note: The number of jump-drive modules required is based on the ship's total displacement, including the tonnage of all subassemblies attached to the main hull. To determine total displacement, take the hull class of the ship and add 3 dtons for each turret, 50 or 100 dtons for each external bay (small or large, respectively), and the total displacement of any craft intended to be carried in external cradles.



Internal bays, and craft carried in vehicle bays or hangars, do not add to total displacement. Whenever the total displacement changes (when jumping without carried craft, for example), the jump number must be recomputed based on the new displacement and the formula on p. GT153.

JUMP FUEL

Important Note: The number of jump fuel modules is also based on total displacement (see *Jump Drives*, above) rather than hull class.

Jump Fuel Tank Options: Fuel tanks can be constructed of simpler, sturdier materials in order to lower costs and reduce the risk of fire. A fuel tank may not have both Heavy and Extra-Heavy options.

Option	Mass	Cost	Fire
Heavy	×5	×0.4	1
Extra-Heavy	×10	×0.2	-2

Collapsible Fuel Tank

A 400,000-gallon (60,000 cf) collapsible, self-sealing tank made of a light, flexible polymer. It expands into an empty cargo hold or space dock (walls of some kind are required for support and stability), and holds 120 dtons (120 stons) of jump fuel when full. A full tank can be installed in 0.5 dton increments, and will rupture during maneuvers above 1.5 G, spilling its contents.

Fuel from collapsible tanks must be pumped into the normal fuel tanks before it can be used; thus a jump may not use more fuel than the capacity of the normal interior fuel tanks, even if the ship carries collapsible tanks. Pumping fuel before a jump takes about three hours. A typical use for collapsible tanks is to allow a short-jump ship to cross a gap in two or more jumps.

Fuel Scoops

A common “free” source of hydrogen is the atmosphere of gas giants; a ship equipped with fuel scoops can dive into the atmosphere and scoop hydrogen into its tanks. Fuel scoops are combination gas tanks and compressor/intake systems powered by the speed of airflow through the atmosphere. Note that fuel gathered is raw, unrefined gas – risky to use until processed and refined.

The number of fuel-scoop systems required depends on the fuel tackage onboard: divide the total number of fuel modules by 500, take the square root, and round up (i.e., 1-500 fuel modules require 1 scoop system, 501-2,000 require 2, and so on). Fuel scoops may not be added to dispersed

hulls; streamlined ships automatically have fuel scoops incorporated in their design with no further requirements.

System	Space	Mass	Cost	Power
Collapsible Tank	1	10.0/130	0.4	–
Fuel Scoops	1	0.57	0.009	–

ENERGY BANKS

A rechargeable energy bank is used to provide energy to systems whose transitory power requirements far outstrip the capacity of ordinary power plants. Energy banks are also used to store excess energy absorbed by black globes (see p. 94). Ships with any of these systems should be built with energy banks. Energy banks are also available in half-space increments.

The simplest way to determine beam-weapon energy is to add up the energy per shot (EPS) required for all beam weapons and multiply by 1,200 times the listed RoF. This gives the megajoules of energy required to double the RoF. (This also makes recordkeeping easier, as a simple “number of shots” can be recorded.) Each doubling of the RoF increases hit probability by 1.

A useful rule of thumb for energy per shot is output energy (from the weapon description) multiplied by a factor based on beam type: 2 for high energy weapons, PAWs, or meson guns; or 2.666 for lasers.

System	Space	Mass	Cost	Storage (Mj)
Energy Bank/10	1	25	5	900,000
Energy Bank/12	1	25	5	1,350,000



GRAVITIC SYSTEMS

Gravitic systems incorporate contragravity technology to enhance the maneuver capability of ships within a gravity well. In *GURPS Traveller*, where reactionless thrusters are common, such technology is available but only necessary in very specialized applications. In some previous versions of *Traveller*, notably *Traveller: The New Era*, reactionless thrusters didn’t exist as such, and use of contragravity was almost obligatory.

CONTRAGRAVITY SYSTEMS

Contragravity is discussed on pp. GT107 and S120. Each module counteracts 10,000 stons of weight, but provides no thrust. Half-space modules are available.

COMBINATION GRAVITICS SYSTEMS

These high-TL systems combine contragravity and artificial gravity in one module, but are otherwise equivalent to the Utility system from p. GT154. These can be substituted for standard utility modules on most existing designs to provide contragravity lift.

System	Space	Mass	Cost	Capacity	Crew	Power
Contragravity/10	1	7.0	0.30	-/10,000	1/13	20
Contragravity/12+	1	7.0	0.20	-/10,000	1/50	20
Gravitics/10	1	11.3	0.31	500/900	1/250	11
Gravitics/12+	1	11.3	0.25	500/900	1/1,000	11

Capacity is listed in dtons and stons, respectively.

CONTROLS, SENSORS, AND ELECTRONICS

Important Note: The scan rating (and therefore range) of installed sensors cannot be greater than the size modifier of the ship plus 36 (maximum scan = SM + 36). Reduce the scan rating if necessary to meet this requirement. In practice, only large ships will mount sensor packages with extremely long ranges.

BRIDGE SYSTEMS

All bridge/cockpit computers can be “hardened” (fiber optic backup) to resist radiation. Bridges can also be “psi-hardened” against telepathic interference (see *Psi Shielding*, p. 84).

Most naval vessels should have hardened Command Bridges; capital ships (cruisers and battleships) should have at least two (one auxiliary or backup) to extend their sensor and communications capability, and in case of damage. Vessels with an extensive fighter complement or launch tube should have an additional bridge for controlling flight operations.

COCKPIT SYSTEMS

A “command” version cockpit is used on long-range fighters; it includes one Complexity 10 computer, and sensors and communications as listed for the TL12 command bridge (except that it has only one communicator of each type). Full life support for two and two bunks are included for extended patrol missions.

INFORMATION CENTER

A high-tech, military-style operations room for 10-20 people. Has workstations, a sophisticated array of electronic mapping and display tables (which function as a fire direction center), plus several dozen digital cameras for video teleconferencing. The system also includes a hardened Complexity TL-2 macroframe computer and 10 terminals for running high-end analysis programs like Expert: Tactics, Transmission Profiling, and Traffic Analysis.

Most capital ships, and certainly all classes designed as flagships, should include an information center.

System	Space	Mass	Cost	Power
<i>Cockpit/Systems</i>				
Psi-Hardened Option	+0	+0.006	+0.013	neg.
<i>Command Cockpit/Systems</i>				
Command Cockpit/11+	2.5	16.8	11.2	6
Psi-Hardened Option	+0	+0.015	+0.03	neg.
<i>Basic Bridge</i>				
Psi-Hardened Option	+0	+0.025	+0.05	neg.
<i>Command Bridge</i>				
Psi-Hardened Option	+0	+0.04	+0.08	neg.
<i>Information Center</i>				
Information Center/10+	4	3.0	2.8	11
Psi-Hardened Option	+0	+0.06	+0.12	neg.

COMMUNICATIONS SYSTEMS

Communications suites extend the range and capabilities of shipboard communications beyond those that come with standard bridges. They are available in Enhanced and Advanced versions.

System	Space	Mass	Cost	Power
Enhanced Comms/10	1.5	20.0	2.1	neg.
Enhanced Comms/12+	1	16.3	0.67	neg.
Advanced Comms/10	13	168	6.3	neg.
Advanced Comms/12+	4	55.6	1.8	neg.

Comms Table (Number/Range in Millions of Miles)

System	Radio	Maser	Laser	Meson
Enhanced Comms/10	5/5	3/50	2/10	1/1
Enhanced Comms/12+	10/5	6/50	6/10	1/2
Advanced Comms/10	10/5	9/50	9/10	1/10
Advanced Comms/12+	10/5	9/50	9/10	1/20

SENSOR SYSTEMS

Sensor suites extend the range and capabilities of shipboard sensors beyond those that come with standard bridge systems. They are also available in Enhanced and Advanced models.

System	Space	Mass	Cost	Scan	Power
Enhanced Sensors/10	4	40.5	32.9	43/45/37	11
Enhanced Sensors/11+	4	38.2	33.2	45/47/39	25
Advanced Sensors/10	8	81.3	69.3	45/47/38	25
Advanced Sensors/11+	8	76.3	69.0	47/49/40	50

Scan is listed as (PESA/AESA/Radscanner).

LONG-RANGE SENSOR ARRAYS

These are military-grade sensors, typically used on picket ships and long-range surveillance vessels to extend the range of Advanced Sensor Suites. All arrays are fixed and require turning the ship to point (the sensor may be used to detect targets only in the vessel’s forward arc of vision; see p. B115). AESA arrays have the no-target option. Nominal range is listed in miles and 10,000-mile space combat hexes. Not every possible sensor is listed; for these, the Advanced Sensor Suite is more effective.

System	Space	Mass	Cost	Range (Mi./Hex)	Scan	Power
Md. AESA Array/10	3.5	31.9	19	1.5 million/150	48	38
Hv. AESA Array/10	4.5	42.5	26	2 million/200	49	50
EHv. AESA Array/10	6.5	63.8	38	3 million/300	50	75
SHv. AESA Array/10	9.5	95.6	57	4.5 million/450	51	113
UHv. AESA Array/10	15	149	89	7 million/700	52	175
EHv. AESA Array/11+	4.5	35.6	19	3 million/300	50	75
SHv. AESA Array/11+	6.5	53.4	29	4.5 million/450	51	113
UHv. AESA Array/11+	9.5	83.1	45	7 million/700	52	175
ELt. PESA Array/10	1.5	17.5	28	700,000/70	46	–
Lt. PESA Array/10	2	25	40	1 million/100	47	–
Md. PESA Array/10	3	37.5	60	1.5 million/150	48	–
Hv. PESA Array/10	4	50	80	2 million/200	49	–
EHv. PESA Array/10	6	75	120	3 million/300	50	–
SHv. PESA Array/10	9	113	180	4.5 million/450	51	–
UHv. PESA Array/10	14	175	280	7 million/700	52	–
Md. PESA Array/11+	1.5	18.8	30	1.5 million/150	48	–
Hv. PESA Array/11+	2	25	40	2 million/200	49	–
EHv. PESA Array/11+	3	37.5	60	3 million/300	50	–
SHv. PESA Array/11+	4.5	56.3	90	4.5 million/450	51	–
UHv. PESA Array/11+	7	87.5	140	7 million/700	52	–



ELECTRONIC WARFARE SYSTEMS

Space combat takes place on more than just the physical plane. Naval vessels must be able to attack and defend themselves from attacks using the electromagnetic spectrum.

Electronic warfare suites provide a wide range of offensive and defensive electronic warfare capabilities to naval vessels. At the ranges that most space battles occur, the effects of these systems are largely ignored. Let one side neglect their preparation in this arena, however, and their opponents will be quick to exploit the error.

Each suite consists of 2 Advanced Radar/Laser Detectors, 2 Area Jammers, 2 Blip Enhancers, 2 Hardened Macroframe Computers (Complexity TL-2) with Terminals, 4 Radio Direction Finders, 2 Radio Jammers, 24-Hour Rechargeable Power Cell, and 2 crew stations. The listing for area jammers gives jammer rating/range in miles; the other listings are range in miles. Crew: 2.

System	Space	Mass	Cost	Power
Electronic Warfare/10	3	43.7	13.0	15
Electronic Warfare/12	3	40.4	10.5	15

System	Area Jam	Radio DF	Radio Jam
Electronic Warfare/10	7/45	500 million	50,000
Electronic Warfare/12	7/45	5 billion	50,000

COMPUTER SYSTEM

High-speed, high-complexity computer systems are at the heart of any naval vessel, particularly its fire-control network.

This system contains eight high-capacity (+50% to number of programs) computers for use in ships that require more computing resources than the bridge can provide. Complexity of the computers is equal to TL-2. This system is common in large ships that have a lot of weapons to target and want to be able to run multiple copies of advanced targeting programs.

System	Space	Mass	Cost	Power
Computer/10+	1	12.0	30.0	neg.

JUMP TROOP SYSTEMS

Jump troops are lightly armed infantry, generally equipped with battledress and whatever support weapons can be man-carried. Their purpose is to assault from orbit, penetrating the planetary defenses in small, one-man drop capsules. See p. T:SM62, for more information on jump troops and drop capsules.

Drop Capsule Launcher: A pair of 700mm launch tubes in a fixed mounting. Rate of fire is 1/10 each so in one space combat phase the pair can launch 240 capsules. This system can also function as a pair of one-man airlocks.

Capsule Rack: 16 capsules in racks ready for launching, with room for donning and loading.

Battledress "Morgue": Long-term storage for 20 sets of battledress (with or without flight packs) up to 1 ston each and room for spare parts. For maintenance space, add a workshop module (p. 89).

System	Space	Mass	Cost	Power
Drop Capsule Launcher	1	12	0.15	–
Capsule Rack	1	16.86	–	–
"Morgue"	1	28.75	–	–

CREW, PASSENGERS, AND ACCOMMODATIONS

Imperial Navy crewmen are entitled to the equivalent of double-occupancy staterooms and may not be required to share living space ("hot bunk"). The captain of the ship must be provided with an individual stateroom, as must the head of each department and the commander of the ship's troops.

System defense boats are a notorious and unique exception to these guidelines. SDB crews often take perverse pride in the hardships they must endure, relishing the nickname “pigboat” that their craft have acquired.

Note that cabin space takes up only about 50% of the volume of a standard stateroom. The remainder (less a small slice of power plant and life support) goes to accessways (corridors and lifts), wardrooms, common areas, galleys, small conference or meeting rooms, exercise and recreation areas, personal storage, and the like.

Bunkrooms: Bunks for 16 personnel with life support and a slice of a galley. Bunkrooms are reserved for Marine and Army troops in transit; this is sometimes fudged to include ship’s troops as well. Imperial ships usually only load 4 troops aboard, giving a comfortable safety margin in the life support.

Low Berths: Low berths are often used to carry replacement crews (the “Frozen Watch”) aboard naval vessels, or as emergency life support for disaster survivors or severely injured crew members.

Frozen Watch: If low berths provide enough places for a 50% overage in personnel (including ship’s troops, if any), then the ship has a Frozen Watch. Replacement personnel are kept available in low berths for continuous replacement of casualties and battle losses; between battles, the Frozen Watch can be revived and used to restore lost crew.

LIFE SUPPORT

Limited Life Support: A limited life-support system provides air, water, and power for 480 man-days. Distributed throughout a vessel, they can provide vital backup in the event of major systems damage.

Accommodation System: Extended accommodations for craft equipped with bridges but no staterooms. Includes full life-support for 5 personnel and 2 bunks, associated power plant slice, and storage for personal gear. This is called a Life Support module on p. T:FT136.

System	Space	Mass	Cost	Capacity	Power
Limited Life Support/10	1	12.6	0.36	480	–
Limited Life Support/12	1	12.4	0.32	480	–
Accommodation/10	0.5	1	0.008	5	neg.
Accommodation/11+	0.5	0.3	0.003	5	neg.

LUXURY FITTINGS AND ENTERTAINMENT FACILITIES

All ships contain small, multi-purpose crew areas as part of their stateroom volume. These are variously employed as lounges, wardrooms, briefing or conference rooms, exercise areas, etc. as required. The systems in this section represent dedicated, special-purpose facilities of the type listed, and are generally only found on the largest vessels or space stations.

Exercise Room/Gymnasium: A gym usually contains a wide variety of exercise machines and facilities for both strength and aerobic training. The standard gym can be used by up to four people at once. Gyms aren’t a luxury – long voyages cooped up in a small starship can cause a significant loss of conditioning for both crew and passengers. Exercise is also a good way to relieve stress and avoid psychological problems between people. Military ships usually have sufficient gym facilities to support 5% of the crew at once.

Hall, Bar, or Conference Room: A large room with tables. Usable as a restaurant, bar, conference room, etc. It can comfortably accommodate 50 people per module (smaller lounges and conference rooms are included in stateroom volume). Weight and cost include furnishings.

Holoventure Zone, Military: A 1,200-square-foot holoventure zone with a roomy operator’s station containing a terminal to a dedicated mainframe computer running a holoventure program. Includes fusion power slice. Includes DR 100 composite armor for live-fire training.

Shooting Range: A 25-yard sighting/training range for two men with a single computer terminal. Has DR 100 and is most often used with plastic bullets and other simulators.



Used by troop ships to provide soldiers the opportunity to maintain weapons skills while en route. Combining multiple ranges could provide a longer range or even a “kill house” for rehearsing missions or honing skills.

Theater: A small auditorium with 100 seats for the audience, a large holoprojector, and an operator’s workstation. Can be used for entertainment, for presentations, or as a briefing or situation room.

The holoprojector can be stowed, if desired, but a stage is not included.

System	Space	Mass	Cost	Power
Gymnasium	2.5	0.5	0.002	–
Hall, Bar, or Conf. Room	10	0.2	0.003	–
Holoventure, Mil./10+	30	23.6	1.4	neg.
Shooting Gallery/10+	10	10.0	0.15	neg.
Theater/10+	20	2.1	0.015	neg.

ACCESSORIES AND MISCELLANEOUS

Launch Tube (TL8): An electromagnetic launch catapult can be installed in any vessel that is intended to launch spacecraft (such as a carrier). They allow the fast deployment of fighters or other craft (40 per 20-minute space-combat turn); craft may be recovered at the same rate. Craft launched from a catapult may use their full acceleration on the turn they are deployed.

Determine the weight of the heaviest craft to be launched from the facility. One launch tube module is required for every 25 ston of capacity. Add enough space dock/hangar modules to contain the largest craft accommodated to make a complete launch tube.

System	Space	Mass	Cost	Crew	Power
Launch Tube/8+	2	20	0.2	10*	1

* Per complete launch tube

External Cradles: External cradles hold vessels (or other vehicles) securely on the outside of the ship's hull. Cradles must be designed to hold a specific weight of vessel (but may carry any configuration that does not exceed this design weight); each module holds 125 stons (250,000 lbs.), but the total capacity can be divided among as many cradles as desired. Cradles can also be installed in 0.5 dton increments. Vessels in cradles are not counted against the ship's internal spaces, but must still be included in total displacement for jump drive requirements. They are also not protected by the ship's armor, but all such vessels can be launched or recovered in a single combat turn.

External cradle systems count against the turret-mounted weapons limit at a rate of 1 turret per 3 spaces.

System	Space	Mass	Cost	Power
External Cradle	1	12.5	0.25	–

WORKSHOPS

A workshop includes workspace, tools, diagnostic equipment, raw stock, and bench parts for performing minor repair and construction work. Small parts can be made from scratch, and medium parts can be repaired or modified.

Workshop/TL: Starships intended for long-range operation need to be somewhat self-sufficient, able to manufacture their own spare parts from found materials. The complete workshop contains all the tools needed for the Armoury, Electronics, Engineering, and Mechanic skills, plus storage space. Workshops all have the same statistics, but each is specific to one TL. Up to 3 people can work in the workshop at the same time; one workshop should be provided for every 60 maintenance personnel onboard. Two of these workshops together make up the Logistics Module from p. T:FI35. Mini-workshops are similar, but not as capable; they are designed for vessels where space is at a premium (such as small craft).

Shipyards/TL: A shipyard activity or dry dock, capable of building or repairing 100 dtons of vessel at a time. Operates efficiently with a hundred workers or robots. Contains

warehouses, workshops, offices, minifacs, etc., as well as fusion power elements. Crew: 100 workers.

System	Space	Mass	Cost	Power
Mini-Workshop/TL	1.5	5.25	0.020	neg.
Complete Workshop/TL	2.5	15	0.060	neg.
Shipyards/TL	4,000	202	10.2	20

MEDICAL FACILITIES

A normal sickbay provides workspace for medical personnel to treat wounds and illnesses on an outpatient basis. Other versions are dedicated to performing surgery, providing intensive care, or as inpatient wards.

Military Sickbay/Aid Station (TL10-12): Naval vessels are often depressurized, either deliberately or as a result of battle damage. In order to maintain a habitable volume, military sickbays come with their own life support. This system is a sickbay (p. GT154), with 2 six-man airlocks, radiation shielding (PF 10,000 at TL10; PF 100,000 at TL11+), room for 10 ambulatory or 2 litter patients, and limited life support and energy banks for 15 man-days. A full fire suppression system is included, to augment those provided by the engineering systems. Military sickbays are used individually as aid stations (often carefully placed along main corridors to act as blow-out shelters), or added to conventional sickbays to form a larger ward.

Evacuation Bay, Basic (TL10): This contains 12 stretchers and 12 Emergency Support Units, with plenty of access space to move people in and out of them. Also includes 12 man-days of limited life support and a fusion power slice. Mostly used by small craft for medevac to a waiting starship.

Evacuation Bay, Advanced (TL10): This contains 12 automeds and plenty of access space to move people in and out of them. Also includes 12 man-days of limited life support and a fusion power slice. Mostly used by small craft for medevac to a waiting starship.

Microsurgery Theater (TL10): This is an operating room with microsurgery equipment plus plenty of access and storage space with a computer terminal.

Operating Theater (TL10): This contains 2 complete operating tables, 2 Emergency Support Units, 50 cf of storage space for medical supplies, and 2 computer terminals.

System	Space	Mass	Cost	Power
Military Sickbay/10	2.5	5.1	0.21	neg.
Military Sickbay/11+	2.5	5.1	0.26	neg.
Evac. Bay, Basic/10+	2	0.6	0.1	neg.
Evac. Bay, Adv./10+	4	6.3	0.6	neg.
Microsurg. Theater/10+	1	0.4	0.08	neg.
Operating Theater/10+	1	0.4	0.12	neg.

SECURITY SYSTEMS

Locks and Alarm Systems: All vessels come equipped with electronic locks (-2 to Lockpicking roll), if desired: these employ a numeric combination, cardscanner, or infrared or electronic "key" system.

High-security locks (-5 to Lockpicking) cost MCr0.004 each; their weight and volume are negligible.

Scanlocks (palm scanners) have negligible cost, weight, and volume. They require an operating Internal Security program (see *Finalization*, pp. 95-96) and cannot be picked, but they can (sometimes) be fooled. Verification takes three seconds, however. On shipboard (where seconds count in an emergency), scanlocks are ordinarily not activated except around specific, sensitive facilities, or in the event of a full-blown intruder alert.

A high-security alarm system (effective skill 20) costs MCr0.003 and can be programmed to set off a siren, lock the ship's controls, and/or send a signal to a radio carried by a designated duty officer if tampered with. Separate alarm systems can be installed on sensitive areas, such as the bridge, engineering, nuclear missile magazines, or VIP quarters.

Internal Security Systems: All vessels come equipped with an internal communications system, consisting of a microphone, loudspeaker, cable jack (for optical data cable), and short-range radio repeater in each compartment. Each compartment also has its own pressure, temperature, smoke, and radiation detectors; these are connected through the communications system to the bridge. The microphone and radio pickups can be activated from the bridge, providing some additional information on events in other parts of the ship. Ships running an Internal Security program can also use the microphone to perform voice-print analysis as a form of scanlock (see above).

Communications and security systems are installed on the basis of one "unit" per compartment (room). For ships without detailed deck plans, a good rule of thumb is 3 compartments per crewman (quarters, workspace, and corridor), not including ship's troops or frozen watch.

Hardened Communications: Military vessels are normally equipped with a fiber optic backup communications network. This can be assumed (at negligible weight and cost).

Basic Security: For additional security, internal sensors can be added. The basic sensor package upgrades the ship's intercom and internal sensors to include monocular color, low-light television (×1), and imaging ladar. An integral rB cell provides (TL-6)×360 uses for the ladar in the event of loss of ship's power. The package can function as a scanlock (retina scanner and/or bar code reader), if desired.

The basic security package also includes a spray tank, capable of creating a cloud of any standard gas or liquid chemical 3 yards in diameter at a range of 10 yards. The spray automatically hits and lasts for 2 minutes in atmosphere (less in vacuum). Sprayers are normally loaded with sleep gas (p. S78: LC 2, Cr75 per unit for 20 shots; Cr45,000 per 600 units); this cost is not included.

Brig, Armory, or Safe: A single cabin with reinforced walls (DR 200), restraints, and barred door: a place to hold unruly passengers, crew members, etc. The psi-shielded brig is identical, but includes circuitry for disrupting attempts to use telepathy through the walls (see *Psi Shielding*, p. 84).

The same module can be used to construct an armory for secure storage of small arms and ammunition, or a safe for high-value cargo. These versions are not interchangeable,

however, and the use must be specified at the time of construction. All versions include an independent high-security alarm and an observation camera. Each module normally holds 1-2 people (up to 25 for a limited period), 4,000 lbs. of racked weapons and ammunition, or 400 cf of valuables.

System	Space	Mass	Cost	Units	Power
Basic Security/10	0.5	2.6	0.90	600	neg.
Basic Security/11+	0.5	2.5	0.49	600	neg.
Brig, Armory, or Safe	1	7.0	0.03	–	neg.
Psi-Shielded Brig/8	1	7.0	0.07	–	neg.

Brigs are single-module systems; they do not come in units.

MISCELLANEOUS SYSTEMS

Entry Module: An entry module consists of a passage tube (p. S118) and either a four-person (small module) or eight-person (large module) airlock.

Escape Capsule: Escape capsules are common on military vessels, which typically have a limited number of ship's boats and a crew that is difficult to assemble under combat conditions (commercial vessels use lifeboats instead). Each capsule holds 10 crew members in vacc suits and provides 20 man-days of limited life support and provisions, 1G acceleration for 1 hour (3 turns), and contragravity for landing, plus a variety of survival gear. Escape capsules are installed under panels in the vessel's hull; to launch, explosive bolts blow the panel clear and solid-fuel rockets accelerate the capsule away from the ship.

Reconditioning and reinstalling escape capsules is only possible at a shipyard or spacedock – clearly, they are used only in emergencies! One capsule is normally installed per 8 crew or passengers (not otherwise provided space in ship's boats or lifeboats) instead of one per 10, to allow for some empty seats.

System	Space	Mass	Cost	Power
Entry Module, Small	0.5	2	0.007	–
Entry Module, Large	1	3	0.011	–
Escape Capsule	0.5	2.5	0.23	–

STEP 6 - ARMAMENTS AND DEFENSES

A note on names: Beam weapons are often identified in-game by their type and nominal Output. These designations are descriptive but not definitive; they are chosen to minimize confusion. For example, a TL11 50-dton meson gun bay has an output of 22.8 Gj. It has been designated, "Meson Gun, 22 Gj," to avoid confusion with the TL12 version, which has an output of 23.0 Gj.

Spinal mounts are further identified on the tables (and sometimes referred to in game) by their Imperial Navy acquisition type-code, which standardizes characteristics of weapons from a variety of manufacturers. These correspond to the letter codes used in the *Classic Traveller* book *High Guard*.



TURRET WEAPONS

Turret weapons are the universal tools of space combat. Even on large vessels, they are still valuable for point defense and defense against small craft.

The Imperial Navy, in an attempt to simplify field swaps between partially damaged and inoperative ships, has standardized on 1,500 cf (3 dton) turrets. Imperial ships mount turrets of those sizes only, and most weapons manufacturers follow suit by only producing weapons to fit the standard Imperial sockets. Custom designs are possible using *GURPS Vehicles*.

Turret Launchers: Missile racks and sandcasters are covered on pp. GT156-157. Turret missile racks launch light (0.15 dton) space combat missiles.

Turret Laser Weapons: Pulse lasers have a greater rate of fire than the standard; this gives an increased chance of hitting a target, at the expense of decreased range and damage. Most weapons are 1 dton; the Imperial Navy also uses 3-dton “heavy” lasers on some ships to provide heavier penetrating power, range, and damage. These can be used to represent turrets from *Traveller: the New Era*.

Turret High Energy Weapons: High-energy weapons (plasma and fusion guns) were originally designed for the battlefield. Eventually they made their way to starship armories as well. Although their range in space makes them viable only as point-defense weapons, the powerful bolts are strong enough to blow any missile or drone into slag. They are also very useful in ground attacks, where the target is within optimum range.

Turret Particle Accelerator Weapon: This development places a particle-beam weapon in a turret or casemate mount. The purpose of this weapon is to provide heavy firepower to patrol or escort craft. This weapon also has the ability to knock out an unhardened computer system due to its EMP effects. Its main drawback is its short range when compared to lasers of the same tech level.

System	Output	Space	Mass	Cost
Std. Laser/10	250 Mj	1	8.32	0.82
Pulse Laser/10	90 Mj	1	5.85	0.59
Hvy. Laser/10	810 Mj	3	27.7	2.70
Std. Laser/12	405 Mj	1	7.8	0.68
Pulse Laser/12	102-Mj	1	5.16	0.31
Hvy. Laser/12	1.3 Gj	3	25.1	2.11
Plasma Gun/10	420 Mj	1.5	15.8	0.743
RP Plasma Gun/10**	150 Mj	1.5	8.97	0.95
Fusion Gun/12	690 Mj	1.5	13.5	2.16
RP Fusion Gun/12**	190 Mj	1.5	8.3	0.88
Turret PAW/12	1.4 Gj	3	27.9	3.5

Ship's Turret Weapons Table

Weapon	Type	Acc	Damage	1/2D	Max	RoF
Std. Laser/10	Imp	32	5d×50(2)	17,000/2	51,100/5	1/60
Pulse Laser/10	Imp	30	5d×30(2)	10,300/1	30,900/3	1/8
Hvy. Laser/10	Imp	33	6d×75(2)	30,700/3	92,100/9	1/60
Std. Laser/12	Imp	33	5d×100(2)	26,000/3	78,100/8	1/60
Pulse Laser/12	Imp	31	5d×50(2)	13,100/1	39,300/4	1/8
Hvy. Laser/12	Imp	34	5d×170(2)	47,000/5	141,000/14	1/60
Plasma Gun/10	Spcl	28	6d×270	2,700/0*	8,000/1	1/60
RP Plasma Gun/10**	Spcl	25	8d×100	1,450/0*	4,350/0	1/8
Fusion Gun/12	Spcl	29	6d×410	3,700/0	11,000/1	1/60
RP Fusion Gun/12**	Spcl	27	5d×260	1,930/0*	5,790/1	1/8
Turret PAW/12	Imp	30	6d×550	5,200/1	15,600/2	1/60

* Point defense only

** *Rapid Pulse (RP) High Energy Weapons*: Some versions listed above have a high rate of fire, making them more useful point-defense or ground-strafting weapons.



BAY WEAPONS

Available bay weapons are listed below. Besides the weapon, power supply, and any ammunition, each bay also includes a pair of crew stations for two gunners (though the weapon can be fired by only one person), a computer terminal, and a HUDWAC.

Missile Bay: A missile bay is a 50-dton bay weapon housing 50 launch tubes and laser comms (each the same as the missile rack's), plus space for missiles. Double the stats for the 100-dton version. Standard missile bays use heavy (0.75 ston) missiles, rather than the light (0.15) missiles used in turret missile racks.

System	Space	Mass	Cost	Shots
Sm Missile Bay/10+	50	75.7/564	1.1	750
Lg Missile Bay/10+	100	151/1127	2.2	1,500

High-Energy Weapon Bays: High-energy weapon bays are larger, bay-mounted versions of high-energy plasma and fusion guns.

Particle Accelerator Weapon and Meson Gun Bays: These are as described in *GURPS Traveller*, p. 157.

System	Output	Space	Mass	Cost
Sm Plasma Bay/10	14 Gj	50	520	55.9
Sm Fusion Bay/12	23 Gj	50	462	80.5
Sm PAW Bay/10	13 Gj	50	467	22.8
Sm PAW Bay/11+	14 Gj	50	520	23.3
Lg PAW Bay/10	29 Gj	100	1,057	53
Lg PAW Bay/11+	47 Gj	100	933	114
Sm Meson Bay/12	13 Gj	50	429	21.1
Lg Meson Bay/12	29 Gj	100	1,057	47.2



Ship's Bay Weapons Table

Weapon	Typ	Acc	Damage	1/2D	Max	RoF
Sm Plasma Bay/10	Spcl	33	5d×1,000	14,200/1	42,600/4	1/60
Sm Fusion Bay/12	Spcl	34	6d×1,400	21,300/2	63,900/6	1/60
Sm PAW Bay/10	Imp	30	6d×1,000	14,630/1	43,890/4	1/60
Sm PAW Bay/11+	Imp	33	6d×1,200	16,700/2	50,100/5	1/60
Lg PAW Bay/10	Imp	34	7d×1,100	21,900/2	65,700/7	1/60
Lg PAW Bay/11+	Imp	35	6d×1,800	30,300/3	90,900/9	1/60
Sm Meson Bay/12	Exp	30	6d×1,000(!)	14,630/1	43,890/4	1/60
Lg Meson Bay/12	Exp	34	6d×1,300(!)	21,900/2	65,700/7	1/60

(!) after damage means that the armor DR is ignored

Repulsors: For supplemental point-defense, some large ships mount repulsor bays. These bays generate a beam of gravitic energy that can knock missiles off-course and out of the way.

Repulsors are bay mounted weapons and are capable of dispatching multiple missiles in a single round. These beams are only effective in the point defense portion of the combat round, as their range is extremely limited.

Due to the short-range nature of the repulsor beam, the projectile must be intercepted when it is close to the ship. When the missile is only 400 miles away, the controller activates the beam and uses it to press against the missile. The

force of the beam overpowers the thrust of the missile's engines, missile to bypass the ship.

The standard small repulsor is a bay-mounted system containing 40 separate beams, each with ST 9,600. The beams can deflect a spread of up to 40 missiles at once. Double these costs for a large repulsor bay. Crew stations are provided for two gunners per bay, although only one gunner is required to operate the repulsor.

System	Space	Mass	Cost	Power
Sm Repulsor Bay/12	50	462	10.4	383
Lg Repulsor Bay/12	100	924	20.8	766

SPINAL WEAPONS

Spinal mounts have great importance in naval tactics, so spinal particle accelerator weapons and meson guns are type-standardized by the Imperial Navy to ensure uniform performance among weapons from different manufacturers. The Spinal P-Beam and Spinal Meson Gun from pp. GT156-157 are listed here as Lt Spinal PAW/10 (570 Gj, Code G) and Lt Spinal Meson/12 (570 Gj, Code J), respectively.

Spinal mounts require one crewman per 100 tons of weapon volume (round to the nearest whole number).

System	Output	Space	Mass	Cost	Code
Lt Spinal PAW/10	570 Gj	1,512	15,089	1,034	G
Md Spinal PAW/10	870 Gj	2,291	22,859	1,567	M
Hv Spinal PAW/10	1.7 Tj	4,480	44,702	3,064	Q
EHv Spinal PAW/10	2.7 Tj	7,106	70,910	4,860	S
Lt Spinal PAW/11+	530 Gj	1,388	13,825	859	J
Md Spinal PAW/11+	840 Gj	2,204	21,967	1,365	N
Hv Spinal PAW/11+	1.6 Tj	4,303	42,919	2,667	R
EHv Spinal PAW/11+	2.8 Tj	7,440	74,221	4,618	T
Lt Spinal Meson/10	820 Gj	2,172	21,658	4,057	E
Md Spinal Meson/10	1.4 Tj	3,753	37,442	7,013	F
Hv Spinal Meson/10	2.3 Tj	5,955	59,415	11,130	L
EHv Spinal Meson/10	3.4 Tj	8,890	88,714	16,618	P
Lt Spinal Meson/12+	570 Gj	1,512	15,078	936	J
Md Spinal Meson/12+	870 Gj	2,291	22,843	1,419	N
Hv Spinal Meson/12+	2.1 Tj	5,428	54,137	3,362	R
EHv Spinal Meson/12+	2.9 Tj	7,730	77,102	4,788	T



Ship's Spinal Weapons Table

Weapon	Type	Acc	Damage	1/2D	Max	RoF
Lt Spinal PAW/10	Imp.	38	7d×3,000	98,000/10	294,000/29	1/60
Md Spinal PAW/10	Imp.	38	6d×4,000	120,700/12	362,100/36	1/60
Hv Spinal PAW/10	Imp.	39	6d×5,000	168,700/17	506,100/51	1/60
EHv Spinal PAW/10	Imp.	40	7d×5,000	212,500/21	637,500/64	1/60
Lt Spinal PAW/11+	Imp.	38	6d×4,000	101,700/10	305,100/31	1/60
Md Spinal PAW/11+	Imp.	39	7d×4,000	128,200/13	384,600/38	1/60
Hv Spinal PAW/11+	Imp.	39	7d×5,000	179,100/18	537,300/54	1/60
EHv Spinal PAW/11+	Imp.	40	6d×7,000	235,600/24	706,800/71	1/60
Lt Spinal Meson/10	Exp.	38	5d×3,000(!)	97,900/10	293,700/29	1/60
Md Spinal Meson/10	Exp.	39	6d×3,000(!)	128,600/13	385,800/39	1/60
Hv Spinal Meson/10	Exp.	39	7d×3,000(!)	162,100/16	486,300/49	1/60
EHv Spinal Meson/10	Exp.	39	6d×4,000(!)	198,100/20	594,300/59	1/60
Lt Spinal Meson/12+	Exp.	38	7d×3,000(!)	98,000/10	294,000/29	1/60
Md Spinal Meson/12+	Exp.	38	6d×4,000(!)	120,700/12	362,100/36	1/60
Hv Spinal Meson/12+	Exp.	39	8d×4,000(!)	185,700/19	557,100/56	1/60
EHv Spinal Meson/12+	Exp.	40	6d×6,000(!)	221,600/22	664,800/66	1/60

SCREEN SYSTEMS

Several varieties of screen are standard issue in the Imperial Navy.

Nuclear Damper (TL10): A nuclear damper focuses a field that causes detonation failure in nuclear warheads. A basic spacecraft damper field extends for a 10-mile radius. Increase the radius by 5 miles each time the number of modules installed is doubled.

Meson Screen (TL10): A meson screen disrupts incoming high-energy mesons. The system includes a screen gener-

ator and fusion power components. The vessel's DR vs. meson guns only is 9 million (TL10) or 20.8 million (TL12) times the number of meson screen modules, divided by its total surface area in square feet.

System	Space	Mass	Cost	Crew*	Power
Nuclear Damper/10	4	41.6	16.2	4	16
Nuclear Damper/12	1	10.2	4.0	4	2
Meson Screen/10	1	5.4	3.9	4	32
Meson Screen/12	1	5.0	2.3	4	36

* total crew, regardless of the size of screen

Force Fields (late TL12): Classic SF “force fields” or defensive screens become available at high tech levels because of an increased ability to manipulate subatomic particles and forces. Force field generators project an energy-absorbing shell around a ship, and are known as *black globes*. The Third Imperium didn’t acquire force-field technology until the late 11th century, when a cache of Ancient artifacts was discovered. Imperial scientists were able to generate crude duplicates of the artifacts, and gain some understanding of the technology involved. Black globes are installed on a makeshift basis; some experimental versions are installed on TL12 Imperial warships. The acquisition of any force-field generator is probably the result of a lucky find on the part of a government, individual, or corporation.

Since a black globe absorbs all energy, a ship with its field on is protected from all fire. Black globes store this energy in a capacitor bank. Unfortunately, the force field works in both directions; the ship may not fire, maneuver, or even see out. The black globe would be of little value in battle if not for the ability of the field generator to flicker – switch the field on and off many times per second – giving the ship part-time protection while still allowing it to fire, maneuver, and track enemy ships during the “off” intervals.

Using a Black Globe: Choose a flicker rate in multiples of 10%, up to the maximum listed for the globe installed. When flickering, the vessel can see normally, but sAccel is reduced by a percentage equal to the flicker rate. A flickering black globe increases the vessel’s passive defense against all attacks, including meson guns, by (flicker rate/10%). If the globe’s PD prevents an attack from hitting the vessel, the attack strikes the globe instead.

Any black globe may be turned on full, with no flicker effect. A ship thus protected is immune to enemy fire, but the ship may not fire or maneuver (although it may still jump). While the black globe is on, the ship counts as a stationary target (size +17); all enemy fire automatically hits the globe.

Damage points from attacks which strike the globe are absorbed by the globe’s capacitors as hit points. The size of the capacitor bank is crucial, as the globe will discharge catastrophically when it overloads. Stored hit points may be drained and converted to energy at the rate of 0.004 Mj per HP, and stored in energy banks or used to power the ship’s systems – use the rules under *Energy Banks* (p. 85). The maximum conversion rate is 1% of capacity per second (or 240,000 HP/960 Mj per dton per turn). Ships which do not have separate energy banks may use their jump accumulators. Each jump-drive module includes accumulators capable of storing 24 Gj.

If the capacitors ever absorb more than their HP capacity, they discharge, releasing all accumulated hit points at once against the ship as damage. Hull DR does not protect! The black globe and capacitor bank are automatically destroyed.

Invisibility: Since a black-globe field absorbs all energy, a ship with its field completely on is effectively invisible at any range over a few miles. During battle, this will have little effect, since a ship that suddenly disappears from enemy sensors may still have its course predicted with great accuracy.

However, the invisibility may be of great help to a force that has not yet been detected by the enemy. Suppose, for instance, that a task force masked by black globes were to jump into a system. If the ship’s velocity is set upon a predetermined course, it could drift unseen past any defending fleet and drop its screens at a preplanned moment, to bombard a planet or to engage enemy squadrons by surprise.

System	Space	Mass	Cost	Flicker	PD	Crew	Power
Black Globe-1/12	10	125	400	10%	+1	4	neg.
Black Globe-2/12	15	188	600	20%	+2	4	neg.
Black Globe-3/12	20	250	800	30%	+3	4	neg.
Black Globe-4/12	25	313	1,000	40%	+4	4	neg.

System	Space	Mass	Cost	Capacity
Black Globe Capacitor	1	25	4	20,000 HP

STEP 7 - STATISTICS

This is the number-crunching stage of the design.

STRUCTURAL HT

In *GURPS Traveller*, ships have a structural Health (HT) statistic to reflect their general condition and resistance to wear, fatigue, and breakdowns. The formula for a ship’s HT is:

$$HT = [75 \times (\text{internal Spaces in dtons}) / (\text{loaded Mass in stons})] + 5.$$

Round to the nearest whole number. Maximum HT is 12 or the ship’s TL, whichever is greater.

ROUTINE MAINTENANCE

Starships require daily maintenance. This requirement – expressed in man-hours – is given by:

$$\text{Maintenance} = 4.8 \times \text{square root of purchase price in MCr.}$$

This is divided among all engineering-department personnel (at 8-12 hours per person per day); additional man-hours can be provided by equipment operators (communications, sensors, weapons, etc.) or other crew members, if qualified. For every four man-hours of maintenance missed, roll against the average Mechanical skill of the engineering department (-4 for every missed check after the first). Failure on the HT roll indicates a minor breakdown; critical failure indicates loss of 1 point of HT and a major system breakdown (GM’s choice, or use the Major Damage Table on p. GT174). Repairs are conducted using the Damage Control rules on p. GT170; restoring a point of HT is equivalent to repairing major damage.

Also, roll against HT at the end of any battle in which the ship dodges in combat, after an unstreamlined ship performs gas-giant refueling or whenever the ship exceeds its rated load capacity (don’t forget to recalculate HT for the new loaded mass!) or otherwise stresses itself in ways it was not designed for. On a failure, apply damage as described above.

ANNUAL MAINTENANCE

A ship should be given a complete overhaul once a year to ensure she is kept in good working order. Annual maintenance restores lost HT points and removes any remaining faults. Such maintenance costs 0.1% (1/1,000) of the original purchase price of the ship and requires two weeks at a Class III-V naval base or Class IV-V starport.

If necessary, this maintenance can be conducted by the crew themselves at a Class III-IV starport in twice the normal time (four weeks), provided the required parts have already been purchased at a Class IV-V starport, at a cost half that of shipyard maintenance (1/2,000 purchase price), and taking up a volume in dtons equal to 1/200 the ship's hull class. At Class I-II starports, this frontier maintenance takes eight weeks.

For 40% of the ship's original purchase price, a ship can receive a complete rebuild from the hull up. This takes time in dock equal to (hull surface area in sf/4,000) days, minimum two weeks, and restores HT to its maximum value.

STEP 8 - PERFORMANCE (SKIMMING AIRSPEED)

Skimming airspeed is the maximum airspeed for high-altitude gas-giant refueling operations; it is only applied in vacuum or trace atmospheres (≤ 0.1 atm).

First calculate high-altitude drag: total surface area/40. For unstreamlined ships, subtract loaded mass from thrust to get adjusted thrust; for streamlined ships, just use total thrust. Then calculate airspeed per p. GT159, using these values of drag and thrust.

For streamlined ships, skimming airspeed equals regular airspeed multiplied by 2.828.

STEP 9 - FINALIZATION

There are a number of types of expendable stores that can be purchased for naval vessels; the most common are detailed in this section.

PARTS AND STORES

All ships require maintenance. On fighting ships, however, the state of readiness and availability of supplies and replacement parts are matters of life or death. A smart commanding officer takes a personal interest in keeping his ship in top condition at all times.

Spare parts cost 0.1% of the ship's original purchase price per year; their volume is included in engineering. This is in addition to parts required for annual maintenance (above).

Although ships' life support systems can produce edible food from algae and mycoprotein, it is not too tempting – a bland-tasting, dry, flaky paste or cake, often gray or brown. Flavor additives (100 single-meal packs weigh 5 lbs. and cost Cr50) make it more palatable. Fauxflesh vats (the product of

mild genetic engineering) produce real animal protein, but ships with fewer than 50 staterooms may have room to grow only one variety.

Stored provisions are the alternative of choice, and virtually a necessity on any ship that intends to keep morale high. Preserved provisions are 2 lbs, 0.04 cf, and Cr6 per man-day. Fresh ("real") food ranges from two to four times the price (and up, although at the high end, the quality of the product depends more on the Cooking skill of the chef), and has twice the weight and volume. Both are carried as cargo: 12,500 man-days of preserved provisions or 6,250 man-days of fresh provisions per dton (at 12.5 stons and MCr0.075 per dton); fresh provisions are also perishable.

MISSILES

Light missiles (those discussed on pp. GT158-159) weigh 300 lbs. (0.15 ston), displace 6 cf (0.012 dton), and are used primarily on turret missile racks. Heavy missiles weigh 1,500 lbs. (0.75 ston), displace 30 cf (0.06 dton), and are launched primarily from large and small missile bays. Heavy missiles have twice the endurance of light missiles (2 hours/6 turns instead of 1 hour/3 turns).

Missile Warheads

Missiles may be fitted with the following warheads:

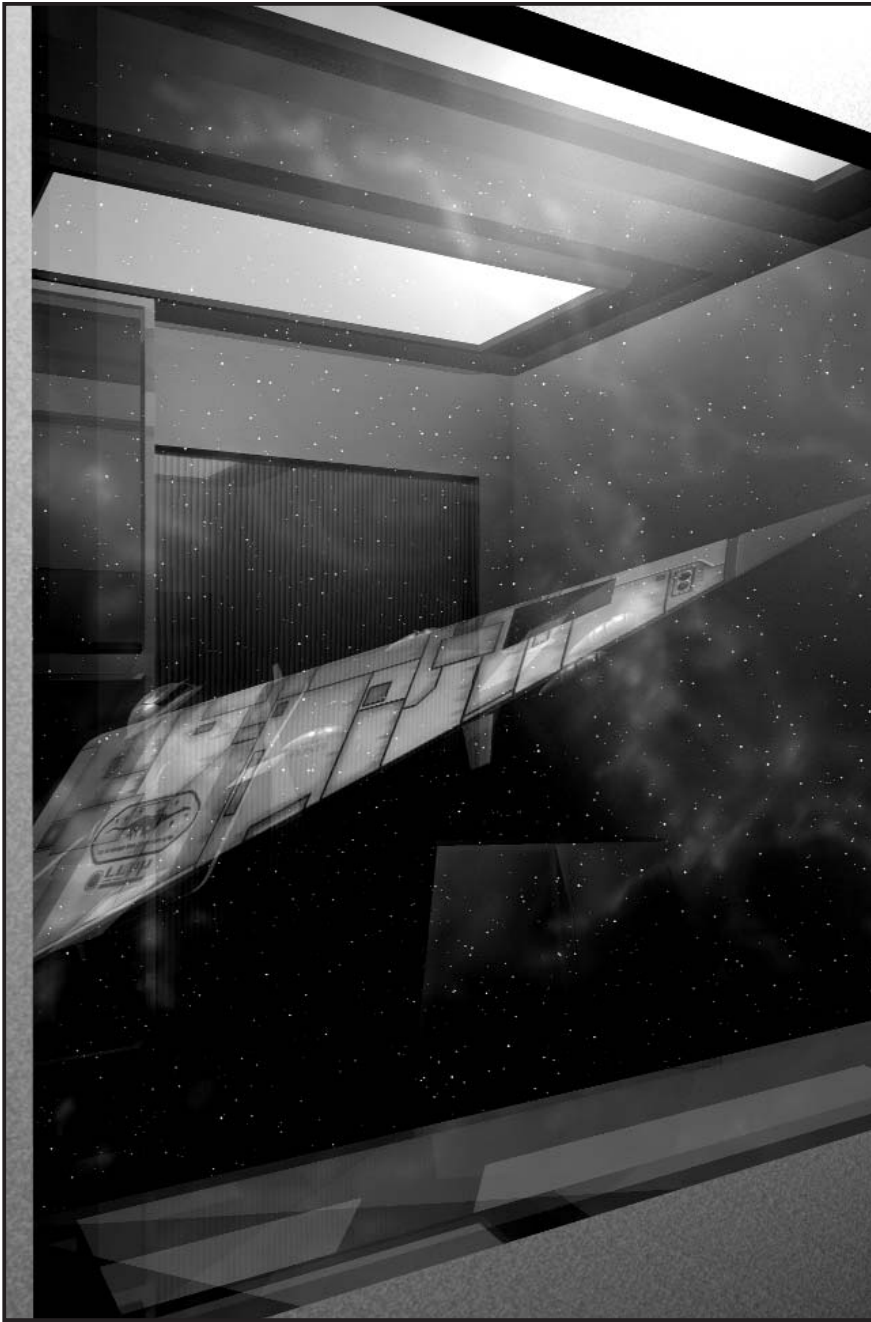
Kinetic: The basic space-missile warhead, this is simply a dense rod that smashes into the target. A kinetic missile relies on the high relative speed gained from its own motor or from the launching ship's maneuvering. Kinetic missiles are often referred to as "kinetic kill" or "KK" munitions.

Nuclear: A fusion explosive. Nuclear weapons are usually fused for proximity bursts. Typical yields are in the 10-kiloton range (light warhead) or 1-megaton range (heavy warhead). Most nuclear weapons give a "one hit, one kill" capability even to small ships, unless the target is protected by very heavy armor. Add MCr0.021 per light missile or MCr0.032 per heavy missile.

X-Ray Laser: These warheads detonate a small nuclear weapon to energize an X-ray laser beam. The warhead consists of a nuclear bomb, an array of beam-generating laser rods, and a targeting system. Instead of physically intercepting the target, the missile is programmed to stand off at a distance of several hundred miles, orients itself on the target, and detonate. The nuclear blast destroys the missile but also pumps energy into the laser array; as the rods vaporize, they produce powerful X-ray laser beams directed at the target. X-ray laser warheads thus free missiles from having to close on their target and risk being shot down by point-defense weapons. This warhead is only available for heavy missiles; add MCr0.064 at TL10 or MCr0.041 at TL11+. (This was the primary type of missile warhead used in *Traveller: The New Era*.)

Nuclear Warheads

Damage at the point of detonation for conventional nuclear munitions is $6d \times 20$ million for a light missile, $6d \times 2$ billion for a heavy. Proximity damage is divided by the square of the distance in yards; it is effectively nil beyond 10 miles (nuclear damper range).



Remember that DR is squared against proximity explosions, and damage from contact explosions is doubled.

Nuclear and X-ray laser warheads are very hard to find (LC-1) within the Imperium, but their use is not prohibited outright if restricted to space-to-space combat.

Cost assumes conventional “kinetic-kill” warheads; for other options, see *Missile Warheads* (p. 95).

Missile Type	Damage (KK/HEAT)	DR	Accel	Cost
Lt. Missile/10	6d ×100 (5)/6d ×60 (10)	40	6G	0.031
Lt. Missile/12+	6d ×100 (5)/6d ×80 (10)	120	10G	0.021
Hv. Missile/10	6d ×400 (5)/6d ×100 (10)	40	6G	0.064
Hv. Missile/12+	6d ×400 (5)/5d ×150 (10)	200	10G	0.098

Extra missiles can be carried as cargo. Missile ammunition will not be accessible during combat, but can be reloaded into missile launchers between battles (this takes

about 1 man-hour per 8 heavy or 20 light missiles). Stored as cargo, each light missile takes up about 6 cf (83 per dton of cargo), and each heavy missile takes up 30 cf (16 per dton).

SOFTWARE

A number of computer programs are listed on pp. S66-67, in addition to those on p. GT162. Many are appropriate for naval vessels. In particular, damage-control parties require access to Damage Control and Electronics Repair. Expert Systems: Electronics, Engineer, Metallurgy, Nuclear Physics, Photonics, and Shipbuilding should be available to the Engineering department. Medical and Expert System: Diagnosis assist the Medical department. Interpreter, Optical Recognition, Expert Systems: Cryptanalysis, Intelligence Analysis, and Research are useful for the security and intelligence specialists aboard, as are the three programs listed below. Piloting and Expert Systems: Shipmaster serve as backups for the Navigation section. All sections need extensive databases.

Most programs are introduced at TL8; by TL10+, they cost only 1/4 as much. The Translation program (p. S67) probably does not exist in the *GURPS Traveller* universe.

Anti-Hijack: If the ship is equipped with internal sensors, an Anti-Hijack program (Expert System: Criminology-14, Complexity 5) can alert the captain or security officer to suspicious patterns of activity, and can automatically block access to sensitive areas when a potential takeover attempt occurs.

The program incorporates a News Daemon (p. UT12) that routinely compares crew, passenger, and visitor manifests to lists of known or suspected criminals on each world visited, and flags close matches for further surveillance. Cr10,000 at TL10+.

Internal Security: This is a Complexity 5 program which monitors and controls a ship’s security systems. It has a skill of 16 on its own, or adds +4 to the Electronics Operation (Security Systems) skill of a person working with it. If someone is attempting to fool security sensors, a Contest of Skill with the Internal Security program may be required. Cr2,500 at TL10+.

Transmission Profiling: This program takes input from a communications receiver, radar detector, or radscanner, and compares it with a database in an effort to determine what sort of equipment produced the signal. The results can be fairly detailed, but information is critically dependent on the database. Complexity 5, Cr8,000 at TL10+.

Variants

In many ways, *Traveller* is a game of variants. Few fans use the published background *exactly* as written. One of the many joys of *Traveller* is that each GM makes minor

adjustments to the background, and many people depart radically from the so-called “canon universe.” Here are a few examples.

The Imperium Strikes Back

by James Maliszewski

Published October 10, 2000

In all its incarnations, *Traveller* has supported a wide variety of campaign styles, ranging from light-hearted action adventure to sober and serious scientific investigation. Chapter 1 of *GURPS Traveller* does an excellent job of enumerating the most obvious of these styles. Included among them is one that initially struck me as odd – the “Rebels against the Empire” campaign. As a long-time *Traveller* fan, it was almost inconceivable to put the Imperium in the role of adversary, let alone outright villain. No, I thought, the Third Imperium is far too noble an institution for such a campaign style to be plausible. What was Loren thinking?

But then I considered it some more. I dimly recalled some of my early *Traveller* games in which the Imperium wasn’t portrayed in the best light. In fact, if I remember correctly, Imperial officials – and Marines – were frequent antagonists in that free-trader campaign of yore. So perhaps it was possible to paint the Imperium in a less than squeaky-clean light. I had done it before, right?

Not long thereafter, I dismissed my old campaign’s portrayal as a youthful indiscretion born of watching the *Star Wars* trilogy far too many times. Plus, I reasoned, I didn’t know much about the true Imperium in those days. To me, the Imperium was just some interstellar empire, complete with armored shock troops and impressive battle cruisers – nothing more. If I had known then what I know about the Imperium now, I could never have portrayed it as anything but an upstanding government. Right?

Wrong. The more I thought about it, the more I read through my *Traveller* materials, the easier it was to see that maybe the Ine Givar were right. Maybe the Imperium wasn’t as untainted and noble as I’d once thought. Perhaps those anti-Imperial propagandists were actually on the right trail

after all. If so, a “Rebels against the Empire” campaign wasn’t so implausible. In fact, it was downright compelling – maybe Loren was onto something after all. In those thoughts was born this article: an attempt to show how to run such a campaign, including plenty of advice and adventure seeds for the GM to draw upon.

For the benefit of the skeptics out there, let’s take a brief look at the evidence in favor of the Imperium’s perfidy. Many people might be surprised by what we’ll find. (I know I was.)

THE EVIDENCE

To keep this examination brief, I’m going to draw primarily from the library data (included in the *GURPS Traveller* rulebook), with a few small additions from other sources. My intention here isn’t to catalog every misdeed or dubious practice of the Imperium. Rather, it’s simply to show that rebels against the Imperium needn’t be nutcases and flakes. Some have legitimate grievances (detailed in the setting’s background for all to see).

Let’s look at the Imperium’s foundation. Leaving aside a discussion of its governmental structure for later, I’d like to focus on Cleon Zhunastu, the first emperor. This nobleman controlled his native Sylean Federation from behind the scenes. He wasn’t an appointed or elected figure, but some sort of kingmaker or string-puller – hardly the stuff of heroism. Moreover, the library data indicates that Cleon’s acceptance of the Imperial Crown was due to “persuasion” from the Federation’s Grand Senate. Cleon was no reluctant monarch, but a manipulator who’d orchestrated his accession after years of planning.

Most Imperials are proud of Cleon Zhunastu, but many more are equally proud of the size of the Imperium – 11,000 worlds is pretty impressive, after all. How'd it get that big? Why, the Pacification Campaigns, of course. Whenever the Imperium encountered resistance to its rule, it used military force to achieve what diplomacy couldn't. Many worlds now part of the Imperium were forcibly annexed in the empire's first centuries.



What about the Imperial House? Surely the Imperium's rulers have been role models, men and women worthy of respect and admiration. Hardly. How many emperors gained the throne through assassination? How many personally killed their predecessors?

And let's think about the role of the Imperial military in politics. Was the so-called Civil War anything more than a series of glorified military coups? After all, didn't Olav hault-Plankwell seize the throne because he disapproved of the then-Emperor's handling of the First Frontier War? Wasn't Styryx forced to abdicate by the military for similar reasons during the Third Frontier War? Sounds to me like the Imperial military has far too much influence in Imperial politics. Historically, once the military becomes involved in politics, it rarely loses that tendency – not a good sign for the Imperium.

Then there are the PsionicSuppressions. The Imperial government didn't really fear psionics – it feared psionics outside Imperial control. So the government initiated a poorly planned attempt to manipulate public opinion, in order to bring the psionic institutes under its thumb. It backfired horribly. Even now, Imperials loathe and fear psionics because of the Imperium's ill-conceived plan.

I could, of course, go on at greater length, mentioning the hypocrisy of the Imperial Rules of War or the inconsistent application of Amber and Red Zones, but I trust that's unnecessary. My point is not that the Third Imperium is in fact some evil tyranny – although it's easy to see how some might think so. Imperial history and governance are littered with examples of pretense, insincerity, and downright lies on the part of the Imperium. Finding a grievance, even a legitimate one, isn't nearly as difficult as it might appear at first.

Now What?

So now you're convinced – if only somewhat – that the Imperium could be a legitimate adversary. Where do we go from here? There are a number of ways to proceed, but the simplest is to answer three questions: Who are these rebels and what's their beef? Why did the adventurers join them? What are the goals of the campaign?

PLAUSIBLE GRIEVANCES

Any rebel group worth its salt has a good reason for rebelling against the central authorities. Without such a reason, rebels are simply madmen. There's nothing noble about being anti-authoritarian for its own sake – and there aren't too many dramatic possibilities inherent in such a thing, either. To work properly, the GM needs to give some careful thought to this question. Why does this rebel group exist at all?

The evidence presented above gives several obvious examples. First and foremost, rebels may oppose the Imperial government on the grounds that it's anti-democratic. After all, it'd be disheartening for some that 57th-century Humanity has returned to aristocratic government after having rid itself of that archaism centuries before. Fighting such an unjust system is a good enough reason to rebel. Of course, the GM (and the rebels) should formulate exactly what they propose to replace the Imperial government. Many of its apologists argue not that it's inherently superior to all other forms, but that it's the best available given the exigencies of communications lag. Any thoughtful rebel group would have at least some vague idea of how they'd choose to order the Imperium were they in charge. Otherwise, it becomes quite difficult to present the rebels as credible patrons for the group.

Adventure Seed: Devolution

The adventurers join a rebel group opposed to the Imperium's aristocratic government on the grounds that real power flows from the consent of the governed, not heredity. However, they recognize the problems inherent in interstellar communications. Consequently, they seek to replace the Imperium with subsector-sized semi-autonomous states, each handling its own affairs but pledged to support its neighbors in times of crisis. The group must work to show that such a scheme is not only possible but preferable to the system of nobility through education, diplomacy, and other means.

DAVID VS. GOLIATH

Of course, as the adventure seed shows, many goals are long-term in the execution, making them difficult to use with some groups. Trying to normalize Imperial attitudes toward psionics may well be a cause worth fighting for, but it's not likely to happen overnight. Unless the players and the GM are interested in games that take a really long view of history, it may be best to stick with shorter-term goals, like the liberation of a single world from Imperial rule.

The Pacification Campaigns brought a lot of worlds into the Third Imperium that would just as soon have remained independent. Likewise, the aftermaths of the Solomani Rim

War and the Frontier Wars saw many worlds change hands – usually into Imperial possession. Consequently, there are certainly planets with a nominal Imperial allegiance that resent their overlords, making them perfect settings for a rebels-against-the-Imperium campaign.

You might think a single world stands no chance against the might of the Third Imperium – but you’d be wrong. History provides plenty of examples of regions that have successfully withstood the assaults of a vastly superior foe. Just ask the Soviet Union about Afghanistan, the British about India, or the United States about Viet Nam. In all those cases, local insurgent groups were able to defeat occupiers (or would-be occupiers) despite the odds against them. The same could occur in *Traveller*.

If the rebel group has the support of the indigenous population, they gain many advantages: hiding places, supplies, better morale. If the occupied world doesn’t possess any obvious strategic importance or – more important – emotional significance to the citizenry of the occupying forces, the rebels have the basis for victory. Only the most ruthless and determined occupier will soldier on in the face of public backlash. If the rebel groups are skilled in manipulating events, they can turn the citizens of their enemies against the occupation. This is a “hearts and minds” campaign that should appeal to *Traveller* players and GMs looking for more than a simple military game.

Adventure Seed: Imperials Go Home!

The activists join a rebel group fighting against the “illegal occupation” of their homeworld. The planet is on the borders of the Imperium and has ties to cultures outside Imperial space. The newcomers are asked to help the rebels defeat the Imperium through propaganda and psychological warfare. This adventure centers on staging protests against Imperial misdeeds, as well as playing up solidarity between the occupied world and its neighbors. Since the Imperium places little value in the world, it’s possible to displace them – with the right approach. Violence isn’t the best method, as the Imperial forces vastly outnumber and outgun the rebels. Moreover, violent actions would cede the moral high ground to the Imperium, which has tried to paint the insurgents as terrorists.

WHAT’S IN IT FOR ME?

Many *Traveller* adventures contain a heavy profit motive as a gimmick to get the characters involved. In a rebels-against-the-Imperium campaign, material gain is rarely going to be the reward for the adventurers’ activities. Rebellion is usually an ideological statement, not an excuse to make money. But this isn’t to say that rebels can’t make money – just take a look at many South American guerrilla groups that deal in drugs to support themselves. Nevertheless, the focus of most rebel campaigns will be on righting perceived wrongs and fighting against Imperial injustices.

Not surprisingly, it may take some effort to get groups interested in this sort of game. Not only does it require them to view the Imperium in a negative light, it also asks them to put an ideal ahead of personal gain. It’s a tall order . . . yet it can be done.

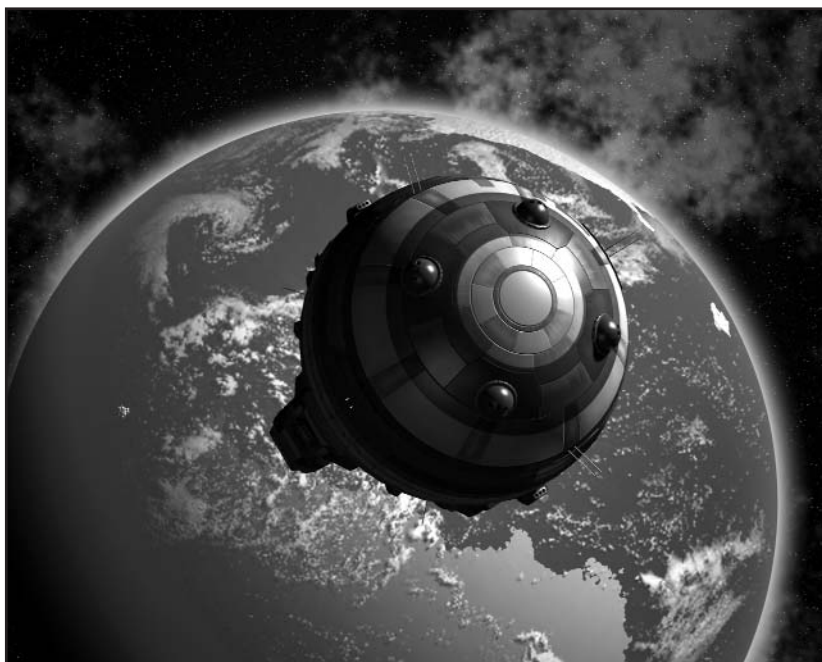
There are several ways to convince the skeptical. The simplest is to give everyone a personal stake in the rebellion. It’s their homeworld that’s under occupation. The leader of the resistance is an old friend or romantic interest. The Imperium behaves in a dastardly fashion toward them, inspiring them to action. There are lots of options. What’s important is that the heroes come to view the rebel cause as their own. Otherwise, they can pick up and leave at any time, which ends the campaign pretty quickly.

Adventure Seed: Death and Taxes

While visiting a frontier world, the crew members find themselves subject to numerous local taxes, including those on any goods they ship to the planet. These exorbitant fees, they are told, are “solidarity taxes” to aid the Imperial governor’s war against insurgents who seek to undermine the Imperium’s “benevolent partnership” with this world. As the visitors learn more, they come to realize the bulk of the planet’s populace opposes Imperial rule and secretly aids the rebels in small ways, ensuring they survive despite the governor’s best efforts. The team may even witness proof of Imperial mismanagement of the world, leading them to support the insurgency directly.

HIRED GUNS

Another option is to bring the characters in as mercenaries. While many rebellions are hard-pressed financially, some are well-financed, either by outsiders or by wealthy individuals sympathetic to their cause. In these cases, agents of the rebellion contact the group and bring the adventurers to their world as advisors in cadre operations or as leaders for their own beleaguered forces.



Once there, the mercenaries see the plight of the rebels and the atrocities committed by the Imperium. Slowly but surely, they gain more and more sympathy for their employers. After a while, money doesn't matter any more. They're in this for the long haul, because the rebellion has come to matter to them.

To do this effectively, the GM needs to be skilled at presenting the situation among the rebels. He needn't whitewash the situation – after all, rebels are people who take up arms against the government. They can and do commit acts of violence in the name of their cause. What's required is an examination of why these people would be willing to risk everything for their cause. What is it that drives them to such extremes? If the GM can show this to the players, he'll have gone a long way toward making the rebels more than just gun-toting madmen.

Adventure Seed: Rogues with Hearts of Gold

The adventurers didn't expect to get involved personally. They intended to train the rebels, lead them on a few small raids, take their money, and leave – but it didn't happen that way. Only a few days into their ticket, they witnessed first-hand Imperial terror tactics. Army troopers in battle dress destroyed entire villages believed to be supporting the rebels.

The survivors, including children, made their way to the rebel camp. Now, teenagers have taken up arms and vowed to avenge their parents' deaths at the hands of the Imperium. The mercenaries don't want to see any more death. Sending boys against the might of the Imperial Army will only add to the carnage. Whether they like it or not, they're involved now. They won't leave till justice has been restored.

BOOKSHELF OF REBELLION

The final element a GM needs to consider is what kind of campaign he wishes to run. In many of the examples above, the rebellion clearly takes the form of a military game, with soldiers who fight directly against the Imperium. Of course, a rebel campaign could just as easily be an espionage-oriented game, or even a merchant game, with the characters functioning as blockade runners. In the end, rebel campaign can have just as much variety as any other *Traveller* campaign. There's no need to limit it to one style of play.

As examples, I'll take a brief look at each of the currently available *GURPS Traveller* titles to show how they can be used to support a rebellion campaign.

Alien Races 1: This is easy. The Zhodani work well as agents provocateur against the Imperium. They could easily become patrons for all kinds of rebellions, not just those that have psionics at their heart. Likewise, the Vargr are a delightfully fractious race that the Imperium has treated with equal parts respect and derision. The rebellion of a Vargr world against Imperial rule could make for some wonderful roleplaying, as the demands of charisma come into conflict with the need for solidarity against the Imperium.

Alien Races 2: The Aslan are an honorable race not given to revolts against legitimate authority. However, the *ihatei* problem and the Imperium's response could lead to rebellion. What if the Imperium gives land to *ihatei* on a world whose inhabitants want nothing to do with the Aslan? The K'kree have little to do with the Imperium, so it'd take some thought to use them in a rebellion game. However, an excellent game could be built around Humans fighting against K'kree expansionism in the trailing client-states of the Imperium.

Alien Races 3: The Droyne are generally peaceful but that doesn't eliminate them as a source of trouble. Confined to reservation worlds, a messianic leader could arise, uniting them against the Humans. Such a campaign could even include shades of the Ancients, as the Droyne rediscover their lost heritage. The Hivers could well serve as the masterminds behind a rebellion. Why? Who knows? There are probably as many reasons as there are Hivers.

Behind the Claw: So many worlds ripe for rebellion. The Spinward Marches is without a doubt the best locale for pitting rebels against the Imperium. It's an isolated frontier sector with lots of independent states (as well as major powers) to court as allies against the Imperium.

Far Trader: Evading taxes and customs fees is a form of rebellion – as is gunrunning and smuggling, not to mention blockade-running. Merchants can easily get into the act of fighting against the Imperium. Turning pirate is another easy way to fight the tyranny of the Iridium Throne.

First In: Scouts against the Imperium? Sure. Suppose a rebel group is seeking a new hidden base. Who better to find it for them than rogue scouts equipped with a survey vessel and secret Imperial star charts? Alternatively, the rebellion in question could be violating a Red Zone of a world. The insurgents could be squatters fighting for the land they believe is theirs – despite what the Imperium says.

Rim of Fire: The Solomani Rim is a hotbed of political unrest. Plenty of worlds resent Imperial rule. Unlike the Marches, this isn't a frontier sector, so would-be rebels must be savvy to survive for long. On the other hand, the Solomani Confederation is right next door and more than happy to help those fighting against the Imperium.

Star Mercs: This is the default for rebellion campaigns. Its uses are many and obvious.

Starports: Seizing a starport is tantamount to a declaration of war on the Imperium. Holding a starport is a good way to show the Imperium you're a force to be reckoned with. Many rebellions will seek to occupy the Imperial starport facilities as a way of keeping the Imperium out. Whether it works or not – and the plans used to achieve it – could make for many exciting adventures.

CONCLUSIONS

Sure, rebellion is treason, but that doesn't mean it can't be the focus of some memorable adventures. As the saying goes, "rebellion to tyrants is obedience to God." Keep that in mind and it's easy to fight the Imperium. It's not the only way to play *Traveller*, but neither is it the aberration it might appear at first. So, pack up your field rations and print up some propaganda sheets – it's time to send the Imperium packing.

Across the Galaxy

by Allan E. Johnson

Published July 4, 2000

We were one long jump out from Capital, on a routine training mission with kids from the Academy. Out to a nondescript red dwarf, survey the system, identify a couple beacon stars and plot coordinates, then back home. That was the plan.

Then we saw it, moving against the stars of the Drift. It wasn't ours. Not with that shape. Just a framework, no habitat module, no drive core, and things crawling on it. First contact. And me with six trainees . . .

—Iolanthe Sullivan, IISS Instructor

MAPPING THE KILOPARSEC GALAXY

Beyond the Third Imperium lies the galaxy – vast reaches of nebulae and drifts of stars, black holes and supernovas, glittering skies above the galactic core, and the strange, dark worlds of the outer rim. At one or two parsecs per jump, they are all beyond reach. And yet, there are mis-jumps, jumps of 10 to 30 parsecs with a Jump-1 drive. What if they could be controlled?

The kiloparsec galactic survey chart and the more detailed maps which follow are designed to support a *Traveller* campaign reaching across the galaxy. The maps are based on Nigel Henbest's and Heather Couper's *The Guide to the Galaxy*, Wil Tirion's *Sky Atlas 2000.0*, and Robert Burnham's *Celestial Handbook*. Play on this scale presupposes longer jumps. With a control refit, Jump-1 drives can reach 100 parsecs. Thousand-parsec Jump-3 drives open the galaxy to exploration and trade.

Each hexagon of the Survey map is approximately 1,000 parsecs across. The spiral arms near Sol are about 200 parsecs thick, so on this scale, they can be mapped as if they were flat. Each 1,000-parsec-diameter survey zone contains eight or nine million stars. Some two million of these are F-, G-, and K-class stars that might have habitable planets. Of these, perhaps 60,000 to 70,000 stars in a zone have worlds whose atmosphere and temperature are suitable for human colonization. Others are marginally habitable. Some systems, though not habitable without high technology, will have prized resources.

Each survey zone can be mapped in detail using 100-parsec hexagons, or C-sectors. Each C-sector contains 80,000

to 90,000 stars, and possibly clusters, dark nebular rifts, drifts of stars, or bright nebulae. Some have special features like pulsars, supernova remnants, giant stars, and black holes.

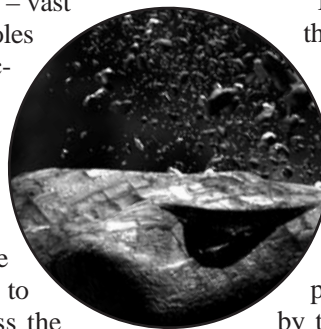
The limiting factors for a kiloparsec drive are the sheer number of stars within range, and the information needed to plot a course to one. You may cross the galaxy in half a year, but billions of stars remain unvisited. Each new star surveyed might be the key to a new trade route, a garden world, or unknown civilizations.

REGIONS OF THE GALAXY

THE CORE

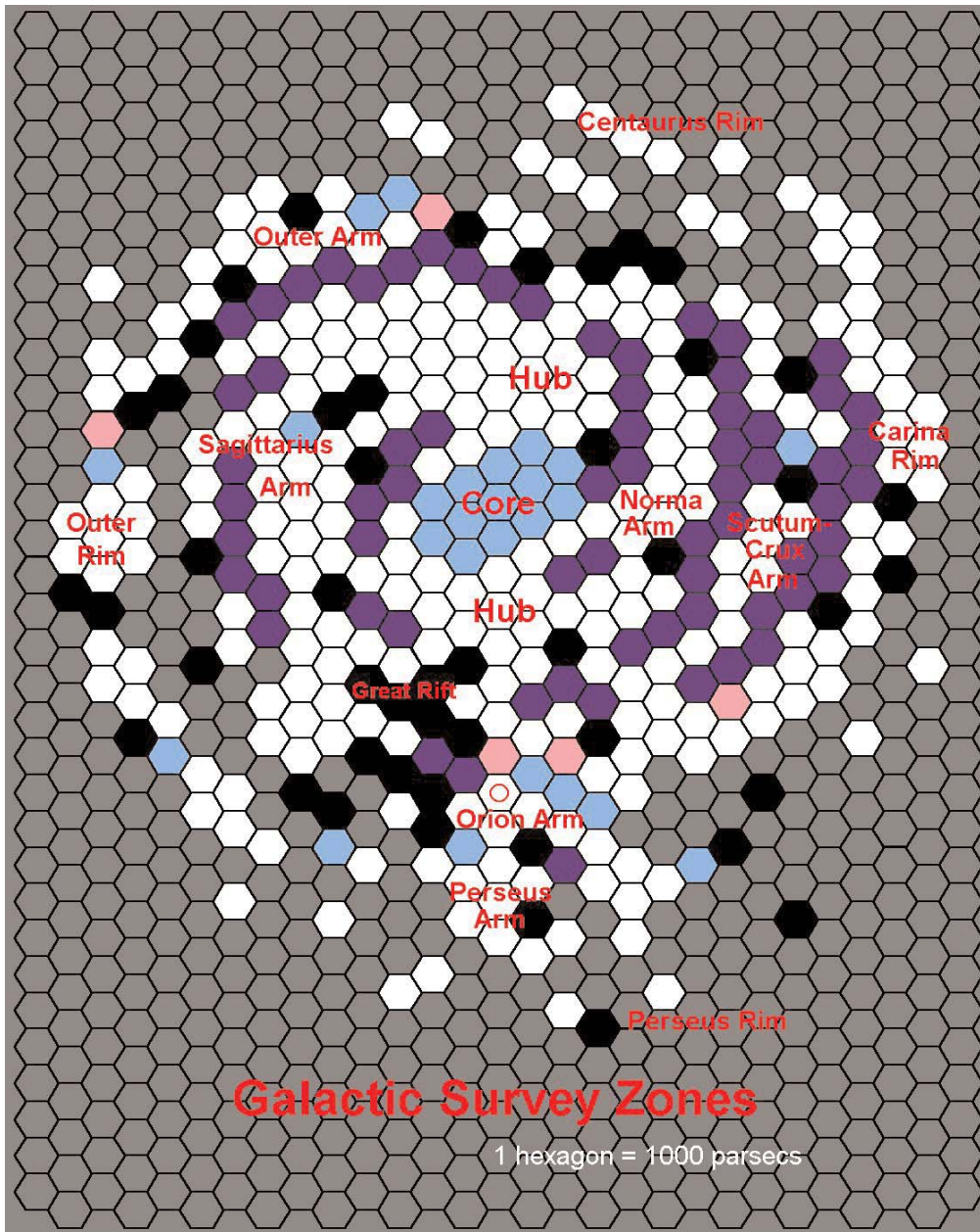
The galactic core is about 2,000 parsecs thick, but the stars are packed so densely near the core that one layer of mapping should be enough. The core may be uninhabitable. Some astronomers suspect a black hole is at the center, flooding space with devastating radiation. Perhaps the core is sterile. Or perhaps it is a region of ancient civilizations. The core might be Unknown Territory, surrounded by barely comprehensible Hub civilizations that are influenced by the core and sometimes trade artifacts out of it.

The core is coded bright blue on the maps.



QUADRANT MAP

This map shows the Orion-Perseus Quadrant, a section of the galaxy from core to rim containing Sol. The Orion Survey Zone, centered on Sol, is marked with a red circle. Rifts, "old star" deeps, and drifts of hot blue stars are shown, as are several large globular clusters of old, bright stars. This scale would provide plenty of room for campaigns like Andre Norton's *Solar Queen* adventures or James H. Schmitz's *Telzey* stories, and would provide a beginning for galaxy-roving space operas like E.E. "Doc" Smith's *Lensman* books, Isaac Asimov's *Foundation* series, or James Blish's *Cities in Flight*.



Among the millions of lower-priority survey targets, some will be treasure troves. Somewhere, in spite of the odds, there will be K-class and M-class stars with prime habitable worlds. Some will have new civilizations; some will have lost colonies. Non-humanoid civilizations exploiting gas giants or the cold outer fringes of red dwarf systems may wait undiscovered only parsecs from the centers of Human settlement. Somewhere, a survey team stumbles across a mighty empire based on archaic jump-2 ships – dozens of civilizations the size of the Imperium could lie within a single 1,000-parsec zone. Discovery of one such world, or a set of charts in a derelict starship, may give the coordinates for thousands of unknown inhabited worlds.

The middle-aged stars of the spiral arms are prime targets for exploration and possible colonization. The drifts offer rich opportunities for mining and manufacturing using orbital stations, domed settlements, or robotic factories. The relatively dust-free deeps between the spiral arms might have

a higher percentage of older stars, some with habitable worlds where technology is slow to develop due to scarcity of metals. Dissident colonies may seek the deeps. Rifts and nebulae are hard to navigate and rarely have usable worlds, though some civilizations have learned to harvest nebular plasma and dust. But most Human development tends to follow the spiral arms.

Very old stars are short in elements like carbon and silicon as well as metals. They may have no rocky planets, only gas giants – or their worlds may long ago have drifted into permanent glaciation or become hothouse furnaces. Globular clusters are dense spheres of very old stars.

Some sectors contain dead zones in which a recent supernova has devastated life-bearing systems. A gamma-ray jet from merging neutron stars can cause mass extinctions for 1,000 parsecs, leaving planets radioactive and sterilized.

Space within the spiral arms of the galaxy has a fractal feel to it. Survey zones or sectors marked as “Rift,” for example, will have pockets of stars, small deeps, and nebulae. And the galactic orbits of many stars carry them into regions where they would not be expected. There are excep-

tions to all the above generalizations; an inhabited star system might be found deep within a 1,000-parsec rift.

ZONE MAPS

It was a deep survey, down a 3,000-year information wavefront to a class-A supergiant. The vector was perfect, and we came out of hyperspace with reserve tanks full.

Which was good. Because since its light reached base, the star had exploded.

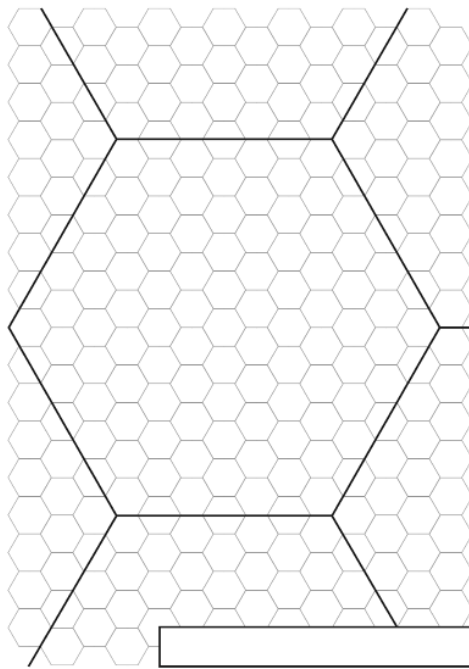
After we finished damage control and stabilized the ship, our drives were at half rating and erratic. We had coordinates for home. We couldn't reach it.

So we surveyed our way back, step by step, nursing the drives till we could make a baseline, then charting a beacon for the next deep jump. And halfway back, we came out above a planet . . .

THE MAPS

Survey zones can be mapped in detail, using 100-parsec hexagons, or C-sectors. Within each survey zone, uncharted sectors are identified with a numerical x-y code, which takes the central sector of the zone as the zero coordinate.

Sectors for which the jump coordinates of at least one system have been surveyed are named. Unsurveyed sectors known to contain something interesting may also be named.



secs from Sol, most systems are still unexplored. Some 80,000 stars lie within the sector, including many of the bright stars visible from Earth. Most of Diaspora and the spinward half of Old Expanses are in Sol sector.

ALTERNATE EMPIRES IN THE ORION ARM

Almost all of the Orion Arm is included in the Orion Survey Zone. H. Beam Piper's future history, Larry Niven and Jerry Pournelle's *The Mote in God's Eye*, and Poul Anderson's *Polesotechnic League* stories fit nicely in Survey Zone Orion. The alternate map assigns sector names that would be usable in campaigns which depart from the published history of the Imperium.

An existing campaign can be adapted to kiloparsec-drive technology and maps. The chief inconvenience will be the sheer number of surveyed stars within a 100-parsec hexagon.

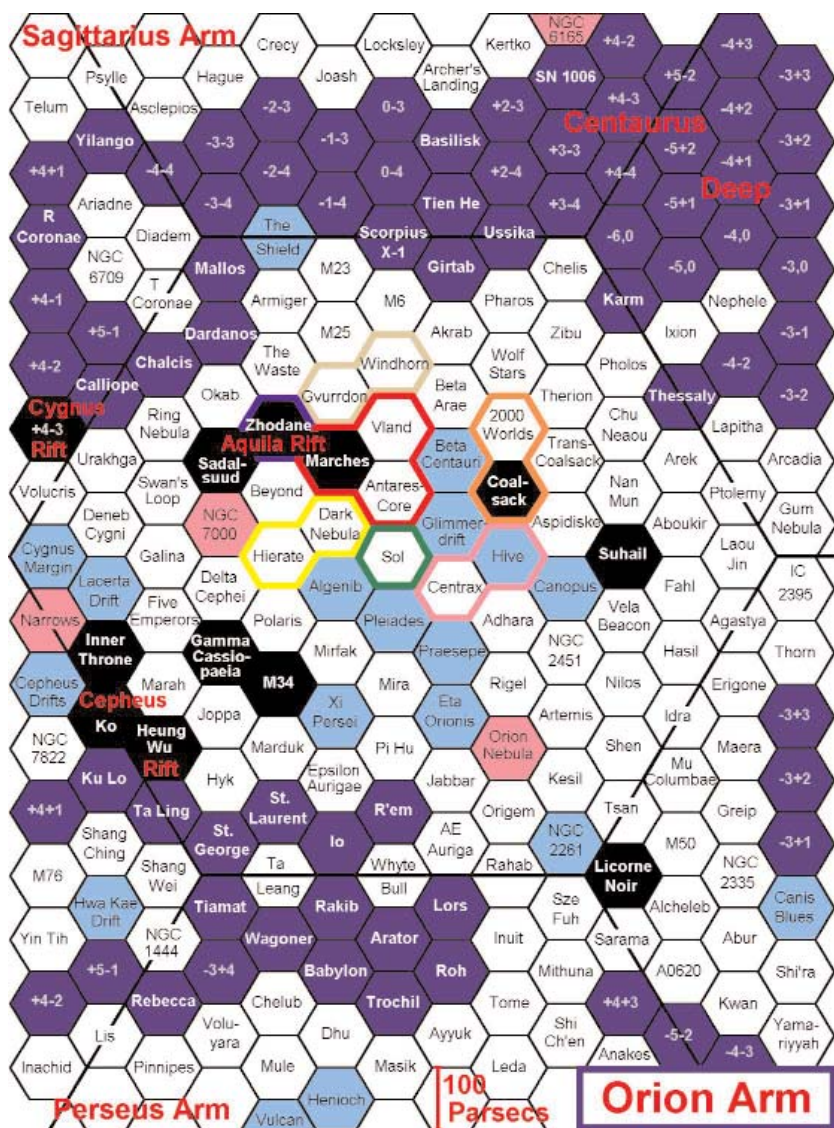
THE ORION ARM AND IMPERIAL SPACE

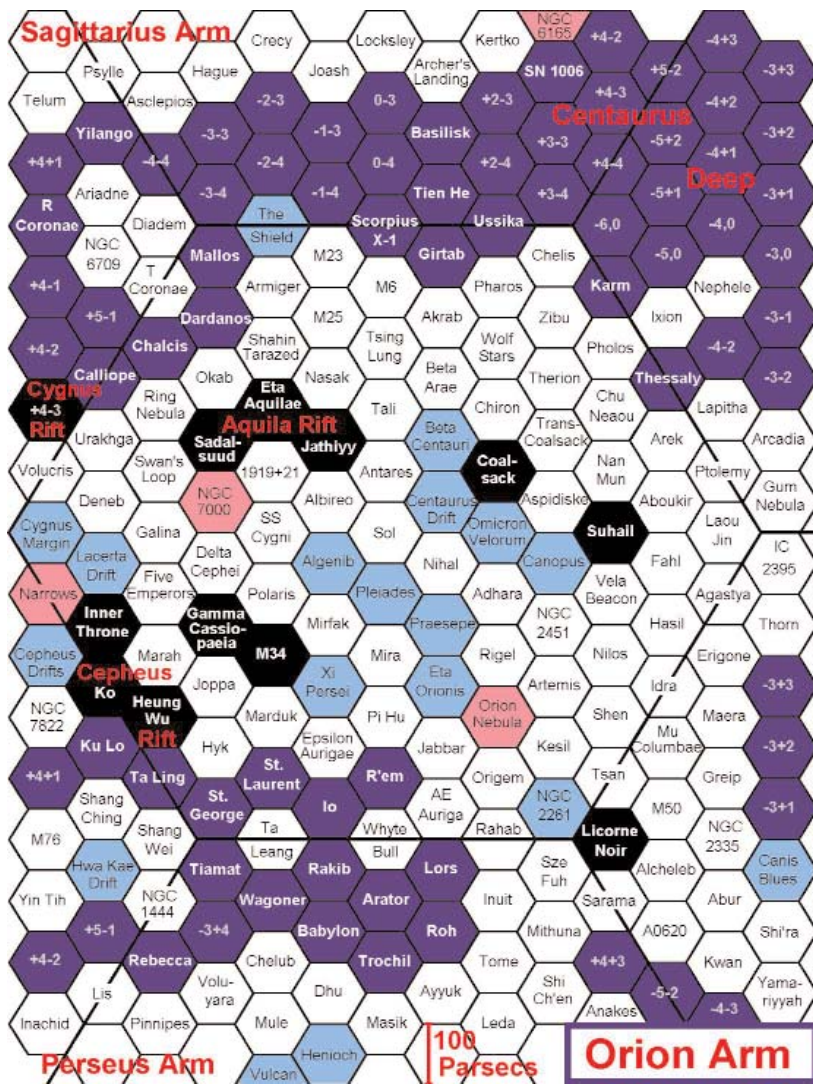
The Imperium controls 11,000 star systems in a rumpled sheet of jump routes crossing three 100-parsec hexagons. About 250,000 stars lie within Imperial space; allowing for double stars and unpublished surveys, on the kiloparsec scale, less than 10% of the Imperium has been explored.

Sylea and the Capital lie within the Antares-Core C-sector. Treat all worlds within this sector as reachable in one jump using an improved Jump-1 drive. Their locations and statistics remain the same. The chief difference is that whereas with standard jump technology most of these worlds were far from the frontier, they are now a thin wisp of settlement in an unknown universe.

The Domain of Deneb Aquilae, the Spinward Marches, and the Trojan Reach are all within Marches C-sector. Much of this sector lies in or near the Aquila Rift; Jump-1 drives are limited to 30 parsecs. Any world in the Spinward Marches is within one 30-parsec jump from any other. The Domain of Deneb can be reached from Vland and the Spinward Marches, the Spinward Marches can be reached from Deneb, Zhodane, and the Trojan Reach, and the Trojan Reach from the Spinward Marches, the Beyond, and a chain of Aslan worlds to rimward.

Published Solomani Rim charts cover the center of Sol C-sector. This is more closely mapped than some regions, but beyond 10 par-





The galactic scale is better suited to far-reaching adventures; move the story into less well-known sectors or survey zones beyond the Orion Arm, and keep the number of known worlds per sector small.

World data from any supplement or game system can easily be adapted to flesh out a galactic campaign. The worlds of a single standard *Traveller* subsector are enough for a thinly surveyed zone or a frontier C-sector. Other subsector lists can be held in reserve, either for further regions or to be added to play as the sector is explored.

THE CYGNUS CORRIDOR

Just spinward of Survey Zone Orion is the Cygnus Corridor, a narrow band of stars along the edge of five zones. Hemmed in by broad deeps and blocked by rifts, the Cygnus Corridor is not a profitable area for expansion. However, precisely because of the barriers isolating it, the Corridor has proven attractive to dissident colonization ventures. Most named sectors in the Corridor are “lost colonies.” Whatever scanty records once existed were often destroyed by sabotage.

GALACTIC CIVILIZATIONS

Kiloparsec-drive societies are spread across vast gulfs of space that they may never explore entirely. It is very difficult for them to maintain effective control of so large a volume of stars; there are no “pinch points” at which one world commands a jump route, so they would have to garrison thousands or millions of stars around each inhabited world. Explorers, wanderers, or hostile neighbors can always get in.

An Empire can maintain itself by an aggressive policy of scouting for hostile neighbors and then incorporating or destroying them, as in *The Day the Earth Stood Still* or Niven and Pournelle’s “Second Empire.” However, galactic civilizations are often looser knit. Services such as survey, trade, medicine, or the Interstellar Patrol may be the binding force of a civilization. A central government something like Earth’s Ottoman Empire may act through local satraps and semi-autonomous interstellar cultural groupings. Or interstellar society may be a tangle of separate societies spread across space and living side by side in the same star systems, with adventure opportunities for mediators and translators.

KILOPARSEC DRIVE TECHNOLOGY

Given kiloparsec-drive jump-control programming and a properly surveyed destination containing sufficient mass to bring a ship out of hyperspace:

- Jump-1 drives with control refit are rated at a 100-parsec standard range, although actual maximum range is greater. For purposes of play, assume that any star within a 100-parsec C-sector hexagon is within one jump from any star in that hexagon or an adjoining hexagon.
- Jump-2 drives can reach approximately 1,000 light years, or about 300 parsecs.

The Idylls Persuasion was spread across that sector, several hundred enclaves committed to a Grail Quest. Each enclave had its Knight Commander, and treaty guarantees with Sol and a half dozen other Persuasions gave them the right to their own laws and courts.

They are hard workers and good neighbors, but when they can, they divide their time between penance and sword practice. And electronics. They’ve got the strangest network of sensor arrays you ever did see. Anyhow, this Postulant said they had decoded a signal from 200 parsecs into the Rift. She was convinced it was from the Grail.

FURTHER READING

Nigel Henbest and Heather Couper, *The Guide to the Galaxy*, Cambridge University Press: Cambridge, New York, and Melbourne, 1994.

Jump can be made from any point within a 100-parsec C-sector hexagon to any star within that hexagon or no more than three hexagons away. Nebulae or densely packed stars will reduce this range to one hexagon, because their mass distorts the structure of hyperspace.

- Jump-3 drives – the kiloparsec drive – can reach approximately 1,000 parsecs. Jump can be made from any point within a 1,000-parsec survey-zone hexagon to any point in that hexagon or an adjoining zone.

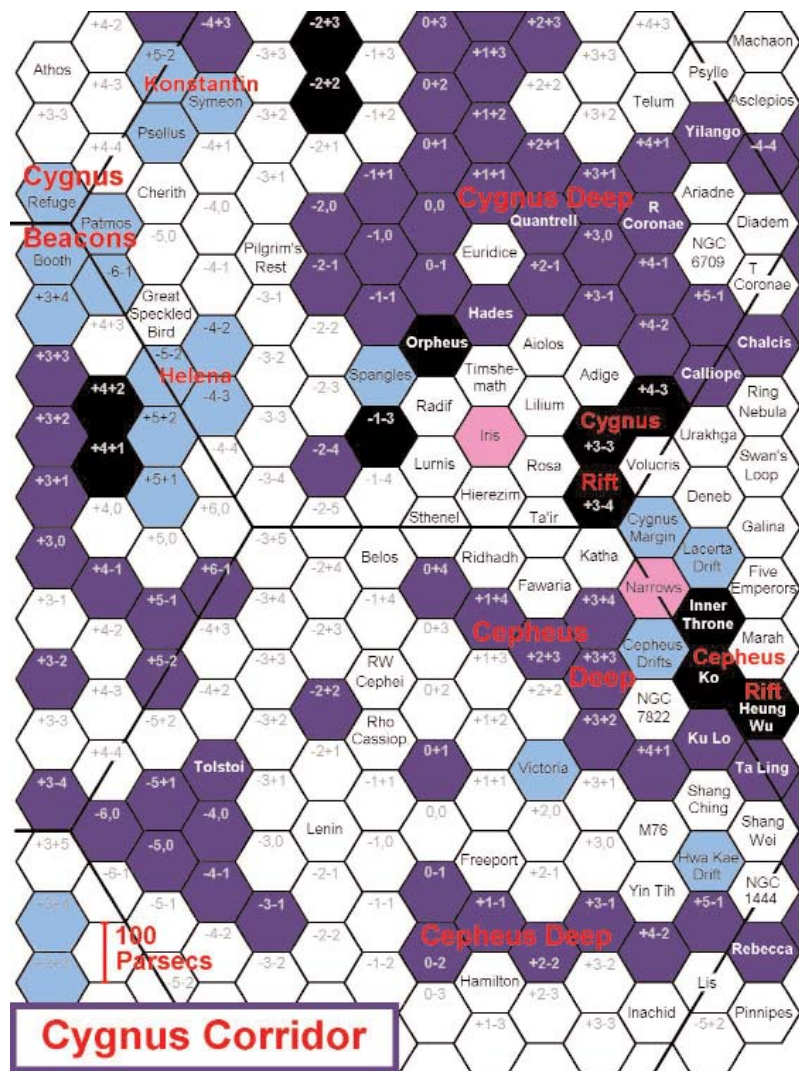
The destination star must always be surveyed, and its relative position calculated to a high degree of accuracy. This is a slow process. Two or more widely separated observatories identify and chart the target star. Mapping a new survey zone usually begins by charting “beacon stars” – hot, bright stars whose spectra can be identified from 1,000 parsecs away. Once a jump to the beacon can be calculated, survey teams establish an advanced base in orbit at that star, then send out teams to nearby systems. When a longer baseline of observing stations near the beacon is established, mapping of more distant stars in the zone can begin.

A practical consequence for play is that the game can begin even if only a few sectors or zones have been prepared. Only surveyed systems are accessible; begin with what you have, and add other systems, sectors, or zones as survey teams reach and chart them.

Kiloparsec-drive vessels are strongly affected by mass. A jump of 100 parsecs or more must emerge near a star or something of equal mass. Kiloparsec jumps into interstellar space are not possible. Interstellar mass also limits effective drive distance. The shape of hyperspace is affected by nebulae and rifts, thick drifts, globular clusters, or the core. If the straight line course of a jump begins, ends, or passes through a hexagon which contains a drift, a nebula, a dark nebular rift, or a globular cluster, the drive functions at a third of its capacity; a jump-2 ship can travel no farther than one 100-parsec hexagon per jump into a rift, and a Jump-1 ship is reduced to 30 parsecs.

Jump-3 kiloparsec drives function at full value only in zones marked as plain space or deeps. If a ship attempts to move into, through, or from a rift zone, drift, or zone containing a globular cluster, the range of a kiloparsec drive is reduced to three C-sector hexagons and play shifts to a more detailed survey zone map.

In the intense gravitational flux within a globular cluster or the galactic core, long jumps are wildly erratic. Controlled jumps greater than 10 parsecs are not possible in these regions, no matter what the rating of the drive.



The mass of the galactic disk itself limits the range of kiloparsec-drive vessels. Longer jumps than one kiloparsec can only be made by moving outside the disk of the galaxy to relay points in the halo.

- Jump-4 drives can, in theory, cover approximately 3,000 parsecs in one jump. This is rarely practical since the first jump must be out of the galactic disk into the halo.

- Jump-5 drives should be able to reach 10,000 parsecs once the ship is out of the disk. Surveying relay points for such distances has so far proven beyond the resources of any known interstellar society.

- Jump-6 drives could reach at least 30,000 parsecs – perhaps more, since such distances would take them well beyond most mass disturbances. However, travel toward the Magellanic Clouds has not yet been attempted.

We were a year out from Terra, trading into Hid-dekel. There's a world there, odd shadows, the – people, I guess – they're odd, too. Spooky. Anyhow, this – singer? Priest? He gave us this. Seemed to be important to him.

Yes, that's all it does. It points. To something 5,000 parsecs above the center of the core.

And sometimes it blinks.

The True Secret of the Ancients

by Hans Rancke-Madsen

Published October 31, 2000

The essential point of this campaign setting is that it is part of an alternate universe. It gives an explanation of the Ancients that is quite different from that presented in *Secret of the Ancients* and *GURPS Traveller: Alien Races 3*. Quite apart from what one personally thinks about the Yaskoydray explanation, it has one *huge* problem by now – far too many players know about it (even though their characters don't). It's no longer possible to evoke the curiosity and wonder that the Ancients ought to bring out. Nowadays, Yaskoydray is commonplace.

It is possible to include Yaskoydray in this version, too – as a rogue Droyne who stumbled over the access to a pocket universe, and who has been building up his role as the mythical Grandfather ever since – although I personally feel that it is better to make a clean break.

Of course, once a group has been through *this* campaign, the same thing can be said about this explanation, but this is really a final campaign, anyway. If the adventurers succeed, they will have saved all of charted space from an abominable menace, have pulled three quarters of the Imperium back together, and be on a first-name basis with the Emperor, Margaret, and several archdukes (as well as becoming Imperial dukes in their own right). After that, anything will probably be an anticlimax. This may be regarded as a flaw in the campaign concept, but I don't see how one can do justice to the awesome mystery of the Ancients with a two-week package tour to Yaskoydray's summer retreat.

The first part of the campaign involves the group in a trip to every Ancient site in the Spinward Marches (as many as the referee thinks is fun) and learning of a menace from the time of the Ancients that is threatening all of charted space. The last battle of the Final War has not been fought yet . . .

The second part involves our heroes trying to deal with the menace. This part is only briefly sketched here, but it will include trips to many of the principal players in the Rebellion, including Lucan, Dulinor, the real Strephon, Margaret, and Brzk. It is even possible that the adventurers may save the Imperium in the process. At least for the most part – *some* parts of Humpty Dumpty can never be put together again . . .

Gimmicks: Several Ancient devices will fall into the hands of the adventurers. The principal one is a ship with a teleportation-based jump drive that will enable the party to complete the second part of their epic quest before they all

die of old age. Other devices will be needed to even out the odds when the team tries to go through the security measures of paranoiacs like Lucan and Dulinor in order to confront them.

The Pull: The campaign relies for its pull on the lure of the Ancients – both the thirst for knowledge about them and the desire for the money that intact Ancient devices usually brings (and the desire for these nifty devices themselves). Later, the adventurers will be the only people in the universe with the knowledge and means (so they hope) to avert a catastrophe. That should be enough to keep them going.

The Push: Throughout the first half of the campaign, the heroes will be thoroughly manipulated by a cunning and powerful psionic adept, but they will lose him before the second half, and, believe me, they'll miss him.

OUTLINE

The time is early 1116, the place is somewhere in Five Sisters subsector. A group of adventurers are approached by a patron – ideally because they own a free trader, but alternatively because the patron just lost the crew to his private starship and the adventurers have the skills needed to substitute for them. The patron is a distinguished expert on the Ancients. With him are two companions, a Droyne and a huge reptiloid barbarian from some obscure minor race unknown to the party.

The patron can be anyone with the money to finance the expedition. Since the adventurers will be thoroughly and obviously manipulated during the first part of the quest, it could be fun to make the patron a Hiver, to divert suspicions until the time comes to Reveal All. The Droyne is an astro-gator and also a strong teleporter. If none of the hired crew fit the bill, this guy will be needed to run the teleporting ship. The lizardoid, G'Runt, appears to be some sort of servant *cum* bodyguard. He should be played for all he is worth as a stereotypical, fantasy-RPG lizard man.

The patron gives a destination and the ship lifts off. When they reach their goal, the patron spends several hours in the seclusion of his cabin with his Droyne companion; when they emerge, the patron will organize a ground party and give coordinates on the planet's surface, where investigations will reveal a hitherto undiscovered Ancient site. It is not in terribly good shape, but it's there. After ascertaining the relative worthlessness of the site, the patron will cheerfully order the adventurers to pack up and go to another star system.

The adventurers will grow sorely puzzled, however, when this performance is repeated, not once, but several times. The patron has evidently discovered a way to find Ancient sites wholesale!

Gradually, as the patron's trust in the crew grows, an explanation is given. The patron has come into possession of the *orvoytsi*, an artifact that shows a hologrammatic projection of the stars of an area of the galaxy that includes the Spinward Marches – *complete with colored markings on a number of worlds*. The patron has checked the markings against known Ancient sites and found a high degree of correspondence. Espoy, his Droyne companion, is a very gifted dowser (if anyone is upset about hearing this, he will insist that dowsing isn't *really* a psionic talent) who, using a pendulum made of monadium, can find from orbit any traces of monadium that happens to be on a world. Since most Ancient sites contain monadium, this leads him to the sites.

The artifact is a fake. Except for the psionic-control circuitry, it is just a holographic projector in a platinum casing such as could've been made on any TL13 world. (Even the psionic controls can be built at TL13 if one knows how.) The patron doesn't realize this fact because the gadget is made in one of the most well-known Ancient styles and it works. Besides, who would use a fortune in platinum on a hoax?

Originally, the patron just intended to test the device . . . but then he got greedy. If he turns over his findings to the authorities now, he will be famous, yes, but the Imperium will take over the search for Ancient sites. The patron will have the prestige to become chief archaeologist on one of the new digs, but which one? He wants the best one for himself. So the search goes on. Time enough to inform the authorities later.

They find several interesting sites and even a few minor artifacts (just enough to keep the searchers interested). But as they continue through the Second Quadrant (Regina, Aramis, Lanth, and Rhylanor subsectors), they find several Ancient sites concealed under octagon-shaped structures. Research will tell them the official story of the Octagon Society (see the timeline p. 110), but it gives no explanation or even mention of how the Society managed to locate several of their shelters on top of unknown Ancient sites. The patron has never heard of any of these sites.

At some point, news of the assassination of Emperor Strephon will reach the Marches and the adventurers. At first, there is little difference in the way their life goes on, but gradually the news become grimmer and grimmer. The Imperium is falling to pieces and it seems like there is nothing anyone can do about it.

When the GM judges that everyone's interest in finding new Ancients sites is flagging, it is time to move on. At the next site, one of the group members will trip an extremely

subtle and powerful trap. G'Runt will jump in front of the party and bear the brunt of the attack. As the adventurers view the horribly mangled body of their reptilian companion, they will be astounded to find that life has not left him yet. Apparently hanging on by sheer willpower, G'Runt will gesture for them to come closer and listen. Some of what he has to say, the investigators should have figured out for themselves from various clues, but much will be new to them:

There were *two* Ancient races, and neither of them was the Droyne. The first were the Masters – small, four-kilo parasites capable of entering the bodies of other creatures and not only drawing sustenance from their hosts, but also affecting their bodily functions (nerves, hormones, etc.). They evolved a high-tech civilization using the bodies of a local ape-like creature, but once they met other sophonts, they decided that intelligent hosts were better in most respects. They conquered most of the known part of our galaxy, enslaving numerous low- and medium-tech peoples. In each case, they took over their hosts' technology and built their own on top of it, which accounts for the many different technological styles found in Ancients sites. They reproduced about once a century (by fission), and since they did not die of old age and had no intention of restricting their "breeding," it is not too much to say that they were a cancer on the galaxy.

These bad guys are, literally speaking, slimeballs. If you've read "Needle" by Hal Clement, you'll realize where I got the idea for their physiology. The mental attitude derives more from Heinlein's *Puppet Masters* or the Riders from *GURPS Aliens*. Unlike these, however, the Masters cannot tap into the mind and memory of their steeds, nor control them mentally. All they can do is inflict excruciating pain or kill. But that is usually enough.

That, at least, was the view of the Old Ones. These reptiloids were then a very old race, but they had always confined themselves to their own planet because they had concentrated on the social and psionic sciences at the expense of the physical. When contacted by a far-ranging exploration ship of the Masters, they noticed the odd double minds of the crew and read them. When they realized just what they were up against, they captured the ship and crew to keep the location of their planet a secret, and set about acquiring the necessary technology to organize an extermination program. The Droyne were recruited as troops. Some Droyne were too small to host a Master, which helped with security, and their psionic abilities allowed them to detect the characteristic double mind of the master-ridden sophont, a greatly useful trait. The war was long and hard, stretching over almost 2,000 years. It was touch and go for a while. Only the immense advantage that their psionic abilities gave them allowed the Old Ones to triumph in the end.

It is up to the GM how benign these Old Ones really are. Was it *really* necessary to exterminate the Masters?

The planet of the Old Ones is located far to spinward even of the Zhodani.

After the war, the Old Ones retired to their planet; they were not interested in running the galaxy nor in interfering with other races. Nowadays, they have very limited contact with the outside – centuries can pass between visits to their remote home planet. But a short while ago, a wandering trader with an old edition of an Imperial encyclopedia chanced by and the Old Ones took the opportunity to scan it. Some events in Imperial history (particularly the Psionic Suppressions) aroused their suspicions and G'Runt was sent off to check it out. Arriving at Andor, he recruited Espoy to help him and worked out a plan to get someone to provide cover for him while he investigated.

He went to Iderati, where he built his fake artifact using some of the sack full of monadium, platinum, and other precious metals and gems that his elders had provided. He then went to the patron and tried to sell it to him. He and Espoy pretended to be old friends who had found the artifact together, so when they told the patron about how they had used dowsing to find an Ancients site, he quite naturally hired them both.

G'Runt was chosen for the job by his elders because of a particularly strong xenotelepathic talent.

G'Runt is now convinced that a Master has survived and is behind both the Psionic Suppressions and the Rebellion. He believes that one of the claimants to the throne, most likely Lucan or Dulinor, is under their control. Just before he dies, G'Runt charges the adventurers to search out these monsters and put an end to their depredations (yes, his people will eventually send others, but it will be years before they begin to worry about him and take any action).

THE NONSUCH

The main gimmick of the second half of the campaign is G'Runt's starship. It has been secretly trailing the party's ship with orders to cooperate with them. After G'Runt's death, it will make contact and offer its help.

Traditionally, ships built by mysterious Elder Races are run by artificial intelligences with distinctive, not to say eccentric, personalities. The GM can have fun creating a personality for "Nonny."

The *Nonsuch* looks like an ordinary free/far/fat/rift trader (as the GM prefers), but it has a *teleportation* drive installed in one of the cabins. The drive is capable of enhancing the natural ability of a psionic adept with telepor-

tation skill to the point where he can teleport himself and the ship up to 4 parsecs. The teleportation itself is instantaneous, but the adept must rest before he can perform another jump. Whether the drive itself has to rest for a while before being reused, limiting the number of adepts that can use it each day, is up to the GM.

Such a teleportation drive may well be impossible under the laws of physics in the *GT* and *CT* universes.

The *Nonsuch's* jump drive and fuel tank is intact and can be used if desired, but the teleportation drive won't work in jump space. Whatever other capabilities the *Nonsuch* has (disintegration cannons, stealth field, defensive force fields, orbit-to-surface teleportation booths, etc.), as well as what advanced equipment it carries, must be established by the GM to fit the challenges the adventurers will meet when they try to check out Dulinor and Lucan. Care should be taken that it doesn't become *too* easy.

For instance, an infallible stealth field and teleportation booths would enable them to bypass any security measures and simply teleport directly into Dulinor's and Lucan's bedrooms. That's no fun. They will, however, need something to give them an edge.

DENOUEMENT

The progression of the second half of the campaign depends a lot on the choices the heroes make after G'Runt's death. The adventurers should have the opportunity not only to defeat the evil Masters, but to pull most of the Imperium together again. They can transport Strephon around fast enough to make it practical for him to visit other faction leaders. Strephon can easily make a deal with Margaret. Craig has done nothing worse than refuse to aid both usurper and assassin. Brzk can be influenced by Strephon in person much better than at long distance. Ilelish will be in a royal mess once the group has wiped out all the Master-ridden, from Dulinor down (it's practically impossible to drive a Master out of a body without killing it – and any Master would kill its steed out of spite if such was happening). Norris will use Aslan *ihatei* to drive out the Vargr of Corridor, and by then Vland may be feeling the pinch. The greatest problem will be Lucan, of course. No doubt some solution for him can be worked out once Norris, Brzk, Craig, Margaret, and Adair all begin to back the real Strephon. The Solomani bits are probably lost forever.

FURTHER ADVENTURES

As mentioned above, this campaign isn't meant to continue once the Masters are destroyed and Strephon is back on the Iridium Throne. But if the heroes want to go on, rather than accept the high honors and rich fiefs showered on them by a grateful emperor and retire to a life of comfort, there are several possibilities.

First, the dukedoms could be located in territory temporarily lost to the Imperium, necessitating a military campaign to win them back. After that comes the monumental task of rebuilding the devastated subsectors, including political infighting with neighboring dukes and real fighting with non-Imperial neighbors.

Alternatively, the *Nonsuch* can be made the focus of a series of adventures where the party acts as Imperial special investigators complete with Imperial warrants. Plenty of places are in need of straightening out and the *Nonsuch* provides a way to get there a lot faster than anyone else could. Of course, as the only known ship capable of going 28 parsecs per week, it is a deep secret – the fact that it uses a psionic pilot to do it makes it doubly so. (The teleportation drive is encapsulated in monadium, so there's no point in anyone trying to reverse-engineer it.)

TIMELINE FOR THE FINAL WAR

-310,000: The Masters thrive. They conquer all of what will later be known as charted space, transplant Humans to other worlds, and experiment with various forms of Terran and other animals in an attempt to breed the perfect steed.

-290,000: The Old Ones are alerted to the menace of the Masters. The Final War begins and lasts 2,000 years, resulting in the extermination of the Masters. But at least one Master escapes by hiding in a stasis field. Other Masters hide in various ways, but in the following years, they are hunted down as soon as they reveal their existence.

-288,000: The Old Ones retire to their planets and leave Droyne, Vargr, Humaniti, and other races to their own devices. In the first millennia thereafter, they discreetly keep an eye on things and deal with any Masters that come out of hiding.

-280,000: Last manifestation of Masters. After another few millennia, the Old Ones conclude the Masters are gone forever.

-75,000: Nadir of Droyne race. Despite their non-interference philosophy, the Old Ones decide that they owe the Droyne, so the mysterious “Grandfather” introduces the coyn ceremony on all Droyne worlds. The ceremony doesn't “take” on them all, but the Old Ones will not bend their principles any further.

In Old One society, the grandfathers have the main responsibility to teach the young ones, so their language uses the same word for teacher and grandfather.

228: Frisini (early name for Beck's World) is colonized.

326: Foren Caliphren Doon is shipwrecked in an unexplored part of Frisini. He stumbles across an Ancients site and deactivates a stasis field, releasing a Master. Establishing proper control of Doon without driving him crazy is difficult, but “Number One” is patient.

Obviously, the timer on the stasis field was faulty; no one would voluntarily stay in one for 300,000 years.

335: Doon makes his way to the inhabited part of Frisini. Number One is relieved to find that the Old Ones seem to have died out long ago, since there are no traces of them (he is incapable of imagining that anyone could voluntarily give up a position as rulers of the galaxy). He decides to look for other surviving Masters. As a cover, he directs Doon to establish the Octagon Society.

342: The Octagon Society, an organization with the ostensible purpose of establishing spacefarer shelters on nearby worlds, is founded. In the following years, shelters are built on nearly all worlds in Regina subsector.

410: The Octagon Society expands its activities to neighboring subsectors. It even establishes the odd shelter on worlds far from Regina (specifically, on worlds that Number One remembered as having bases). One is built on Utoland, another on a Vargr world 40 parsecs to coreward.

412: Number One fissions into Number One and Number Two.

499: Most of Spinward Marches has now been searched without finding other Masters (though several bases have been found and hidden under Octagon buildings). Number One and Number Two decide to give up the search and move to the Imperial core (after having sealed the bases they have found), where they intend to infiltrate the top of Imperial society. They loot the coffers of the society (causing its collapse) before they go.

Unfortunately (for the Masters), Imperial nobles routinely employ psionic adepts as guards, making their plan difficult and far too risky. Instead, they begin to infiltrate the academic community and to promote the science of psychohistory.

Of course, the Masters didn't fight the Old Ones and their Droyne minions for more than a millennium without learning *something*. They know how to make several useful psionic and anti-psionic devices. However, they decided that revealing superior technology to the masterless is likely to make people much too curious for comfort. First priority was miniature psionic shields. Next came shields with fake surface thoughts. They still can't fake these surface thoughts well enough to fool a psionic adept who is intimately acquainted with the person they have taken over, but they are good enough to fool anyone else.

800: The Masters (now roughly 32 in number) provoke the PsionicSuppressions to eliminate psi talents from Human society, lessening their risk of exposure. The move succeeds to a certain degree, but the top levels of Imperial society continue to employ psionics in secret.

1100: There are now about 250 Masters. They succeed in infiltrating Archduke Dulinor's security service in its infancy. Eventually, Dulinor is taken over, too. Plans are made for the elimination of Strephon and the takeover of the Imperium.

1116: The plan to make Dulinor emperor partially fails. The Imperium is plunged into chaos and ruin.

Mapping the Solid Subsector Using *ChView*

by Christopher Thrash

Published August 22, 2000

The referee has the responsibility for mapping the universe before actual game play begins. The entire universe is not necessary immediately, however, as only a small portion can be used at any one time.

– *Traveller, Book 3: Worlds and Adventures, 1977, p. 1*

Maps are some of the most useful and versatile tools of adventure gaming. They portray large amounts of information in a compact and readily understood form. They help us keep relationships straight in our minds – distance, time, organization, orientation. More, they have the power to inspire: mapping imaginary lands makes them as real to us as countries that are merely far away.

This article proposes a quick-and-dirty method for mapping *Traveller* subsectors in three dimensions. The process parallels Book 3 of *Classic Traveller* (pp. 4-16). By concentrating on mainworlds, it reduces die rolling to the minimum required to build a campaign setting. It combines elements from *GURPS Traveller: First In* and *GT: Far Trader* – the results are compatible with those rules (and *GT: Starports*) but suitable for any version of *Traveller*. Some steps are deterministic (based on geographic theory) rather than random. This further reduces the referee’s workload and lends some realism to the results.

REQUIREMENTS

You could complete this process using just a pencil, graph paper, dice, and a scientific calculator – but I don’t recommend it.¹ You may want a spreadsheet program for calculations in bulk. This article assumes a general familiarity with the concepts and terminology of world- and system-

generation in *Traveller* – specific usages are defined in the list of abbreviations and terms (p. 123).

Although not strictly required, the examples in this article make extensive use of *ChView*, a simple, robust, and (best of all) freeware 3D star-mapping program, produced and distributed by the fans of science fiction author C.J. Cherryh (including Jo Grant of CORE). *ChView* is available from several websites (try members.nova.org/~sol/chview/ or www.maths.tcd.ie/~jaymin/chview/).

Mac users should be able to run *ChView* with a PC emulator (e.g., Virtual PC or SoftWindows). Other commercial and freeware star-mapping programs are available; converting should be fairly straightforward. (Some sites are listed in *References and Resources*.)

MATHEMATICS

This article does use some moderately complicated mathematics, particularly logarithms and geometry.²

Base-10 logarithms are used throughout. You should be able to get by using the “log” or “log10” and “10^x” keys on your calculator. In particular, population ratings (PR – which are already the base-10 logarithms of population) have been extended to one decimal place, instead of using the traditional “population multiplier” digit. (This produces mathematically consistent results, where population multipliers won’t.) A conversion chart is included below:

PR Dec.	Pop.	PR Dec.	Pop.	PR Dec.	Pop.
+0.0	×1.0	+0.3	×2.0	+0.6	×4.0
+0.1	×1.3	+0.4	×2.5	+0.7	×5.0
+0.2	×1.6	+0.5	×3.2	+0.8	×6.3
				+0.9	×7.9

So a population of 4,000,000 would be a PR of 6.0 + 0.6 = 6.6, and a PR of 2.8 is a population of 100×6.3 = 630.

Another key concept is calculating the distance between two points in 3D space using their (x, y, z) coordinates. The 3D distance formula is simply an extension of the 2D version:

$$\text{distance}(1 \rightarrow 2) = \text{distance}(2 \rightarrow 1) = \sqrt{[x1-x2]^2 + [y1-y2]^2 + [z1-z2]^2}$$

Many game maps in 2D use a hexagonal grid to divide area and regulate movement. Some real geographical phenomena also follow hexagonal patterns (in the absence of perturbing influences). Hexagons are used instead of squares for three reasons: they meet only along their edges (not their corners), adjacent centers are all equally distant from one another, and they represent the most compact arrangement possible.³ In 3D, there is no single polyhedron with all these properties. Instead, there are two that split them: the cuboctahedron (also called a vector equilibrium) and the rhombic dodecahedron.

A cuboctahedron (*matrix.lst*) is a figure consisting of 12 points, all equidistant from a common center and each adjacent point. (Best viewed with View/Preferences/Stars/View Radius and View/Preferences/Display/Link Sizes both set to 35 ly. Right-click and drag to rotate image.) It can be thought of as the centers of the densest possible packing of spherical balls in 3D.⁴ By taking each outside point in turn as the center of its own cuboctahedron, it is possible to construct a regular, 3D array with all adjacent points equidistant from one another.

If, on the other hand, you determine what volume of space is closer to the center of the cuboctahedron than to any of the other points, you get a different figure: a rhombic dodecahedron (*subsec.lst*). (Reset Link Sizes to 4.7 ly, or this takes forever to refresh.) This is a 12-sided polyhedron, but

are the most efficient way to do so. They contact their neighbors only on their facets, not on edges or corners.

This article will use a rhombic dodecahedron 10 parsecs across for the shape of the subsector (see top graphic, p. 113). Its volume is $(\sqrt{2}/2 \times d^3)$, or a little more than 700 cubic parsecs. The centers of neighboring subsectors then form a cuboctahedral array, with a unit length of 10 parsecs. In practice, this isn't as hard as it sounds. The file *subsec.lst* contains a list of all (x, y, z) coordinates in a subsector, in a cubical, one-parsec array.

GETTING STARTED

ChView is designed to use two types of files: star data lists (.lst), which are “/”-delimited text files, and binary data (.chv) files, which are generated by ChView and are required to display anything more than simple positional information and notes. Most of the examples will focus on using .lst files. The format for a star-data entry is:

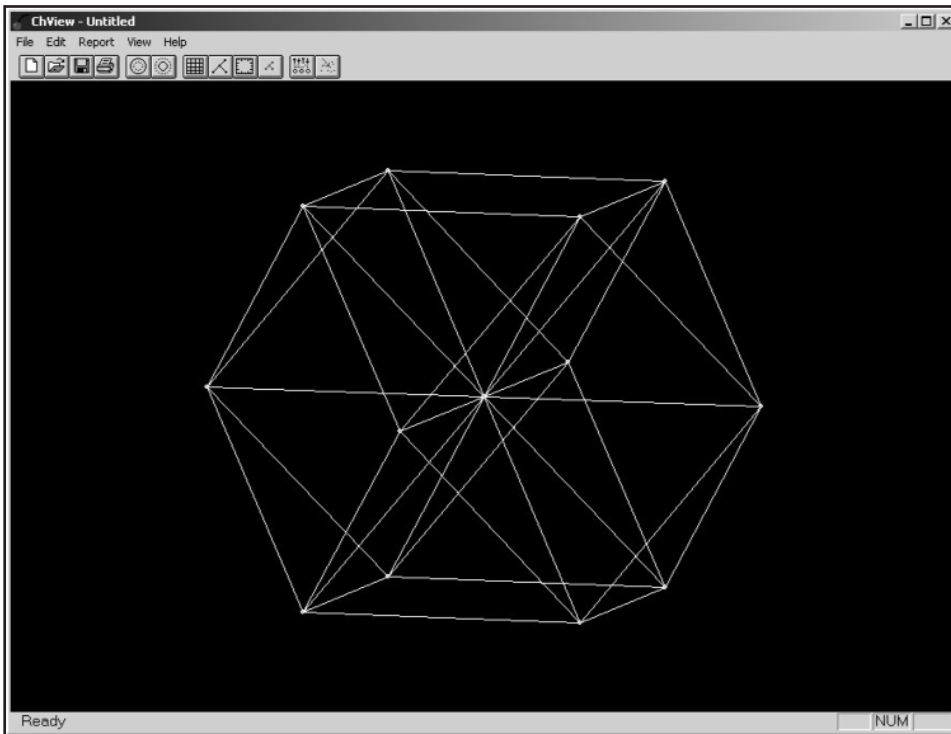
display name/star name/<radius from origin>/<spectral class>/<mass>/constellation/notes/<x,y,z>

Of these, the entries in <brackets> are required; you can use “X” for spectral class and “0” for numerical data that are unknown. The display name is normally visible on the star chart (so it is important to be selective, to avoid cluttering the map). Spectral class and mass are reflected in the color and size of the dot on the chart. The other information is available by double-clicking on the star itself; these are text fields, and can contain any information you need (as long as it doesn't include a “/”).

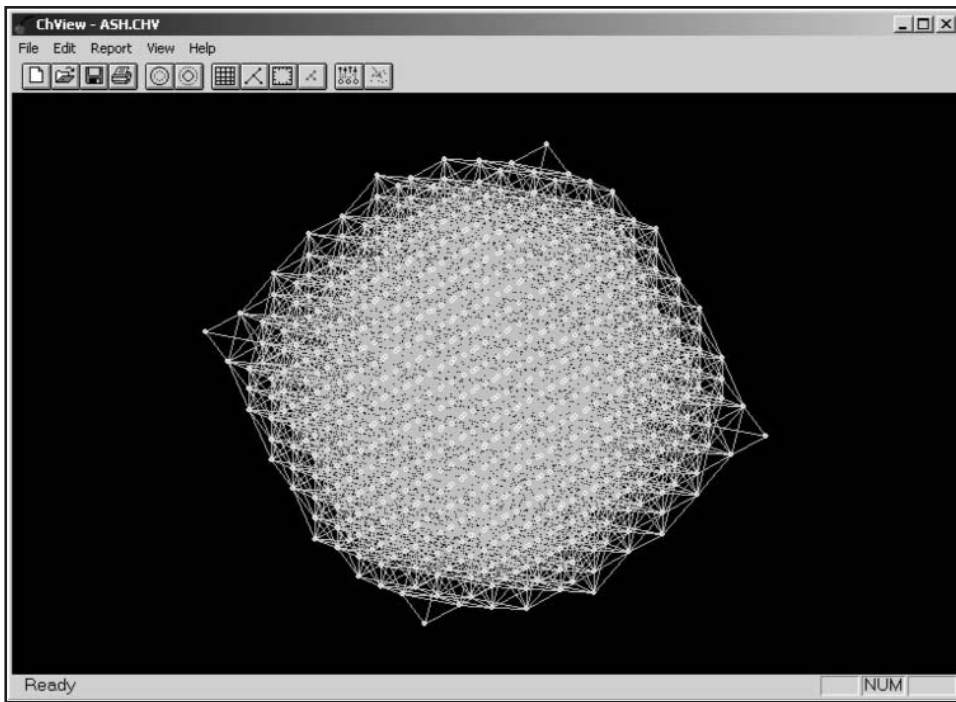
Note that each line represents a single star, not a complete star system. This doesn't matter now, but keep it in mind when you go back later to add detail.

Run ChView and call down the View/Preferences menu (see bottom graphic, p. 113). This is where you can control the appearance and features of your screen. Under Display, set your desired jump lengths as Links and adjust their colors (the smallest value is the minimum separation displayed as a distinct link). Check off the Numbers box, or the map becomes impossible to read. Under Stars, adjust the maximum radius from the center of the screen that the program will display; 35 ly is a good start.

Important note: The average separation of systems near Earth (and in *GT: First In*) is 2.5 parsecs (8.3 ly). For jump capabilities much below this value, long, connected “mains” are impossible – jump-1 starships are virtually worthless without auxiliary tanks. For jump capabilities much above this critical value, so many stars are in range that navigation is rarely



not the familiar d12. Instead, there are 12 identical four-sided faces: four on top, four spaced around the middle, and four on bottom. Rhombic dodecahedra pack together to completely fill a space (which cuboctahedra and d12s will not), and



more difficult than choosing among options. For the purposes of this article, I have set the distance of a jump-1 to 3.95 ly, so that a Jump-2 (7.9 ly) is close to, but not greater than, the critical value.⁵

Open or print a text copy of (*subsec.lst*). Record your subsector data in this file as you go along. Keep backup copies at each step, in case you want to redo a step for better results. In general, don't keep track of information you don't need or that simply repeats an average, standard, or default value. You can fill in as much detail as you like at the end.

STEP 1 - CONCEPT

First decide what kind of subsector you want to generate. There are a number of possibilities, based on where the subsector fits in the overall scheme of your campaign. Some options to consider:

- Does this subsector contain the homeworld of a major species or government?
- Is it in the core or on the periphery of its interstellar state?
- Does the subsector contain a regional (sector) capital, a local (subsector) capital, or no capital at all (frontier)?
- Is the subsector on important trade routes or off the beaten path?

Decide also in these general terms what the 12 subsectors adjacent to yours are like. You may wish to copy <matrix.lst> into your sub-

sector file, to help you keep track of the neighboring subsectors (don't forget to delete the center point, however). A short note in the Display Name field will keep you oriented. Example: (*Trav3D01.lst*).

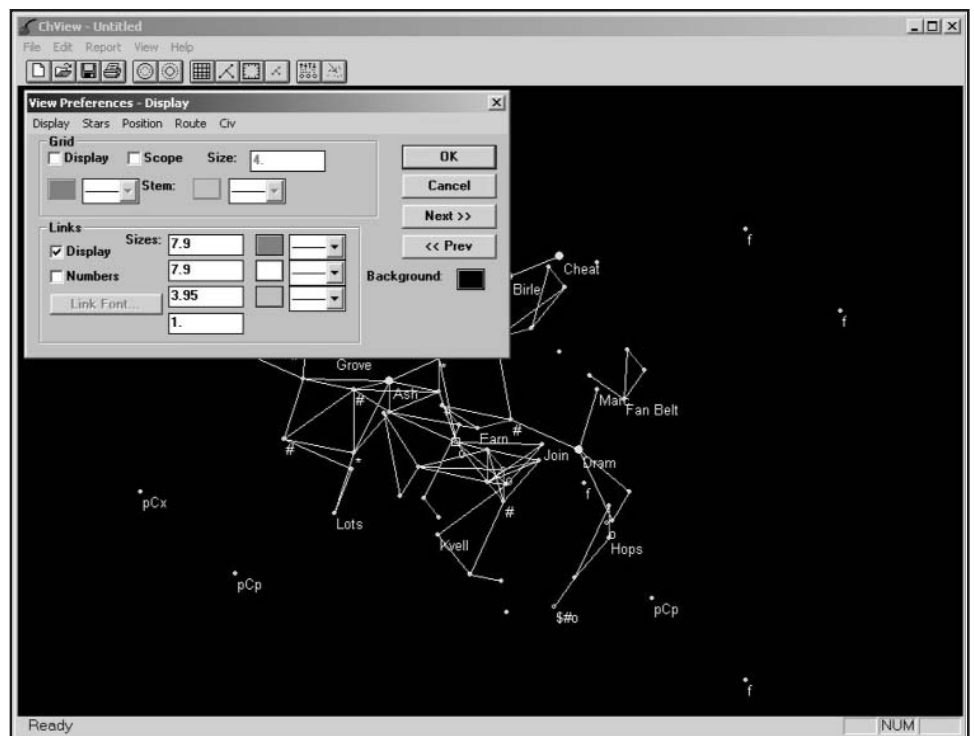
Finally, determine the maximum technology level (TL) available in your campaign (or in this interstellar state, anyway) and what TL is routinely available. (In *GURPS Traveller's* Third Imperium, these are GTL12 and GTL10, respectively.)

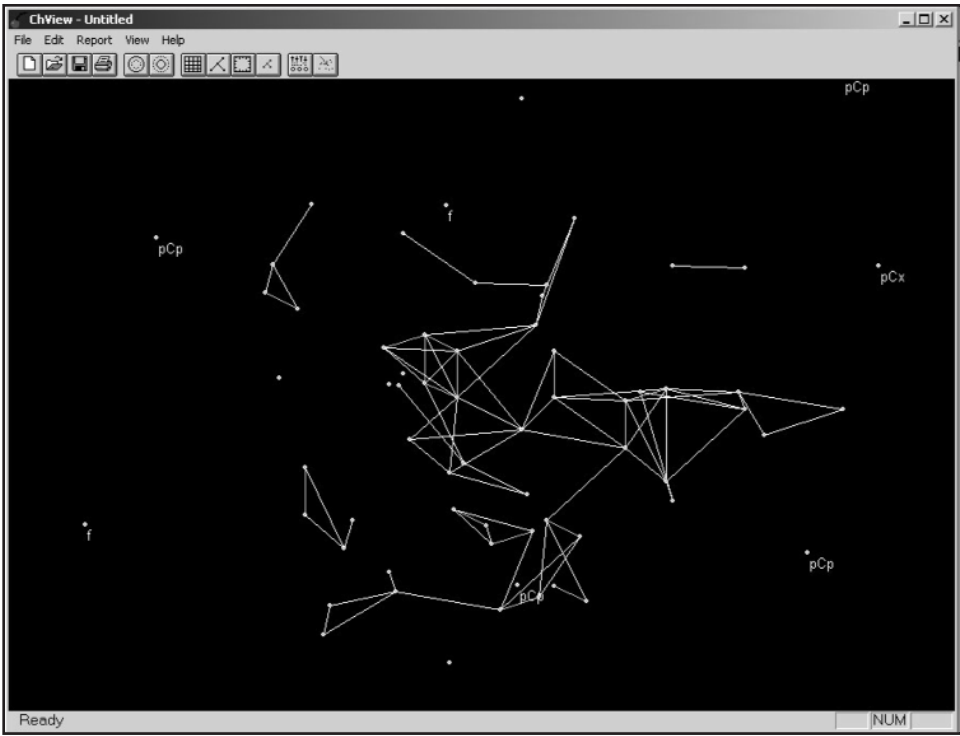
STEP 2 - SYSTEMS

Roll 3d for each cubic parsec. On 6 or less, a system is present. On 7 or more, that cubic parsec is empty; delete this line from the subsector file. This will result in a few more than 60 systems per subsector. Number each system sequentially in the Star Name field, or use some other method to uniquely identify each one. Example: (*Trav3D02.lst*).

See the graphic on the top of p. 114 for an example.

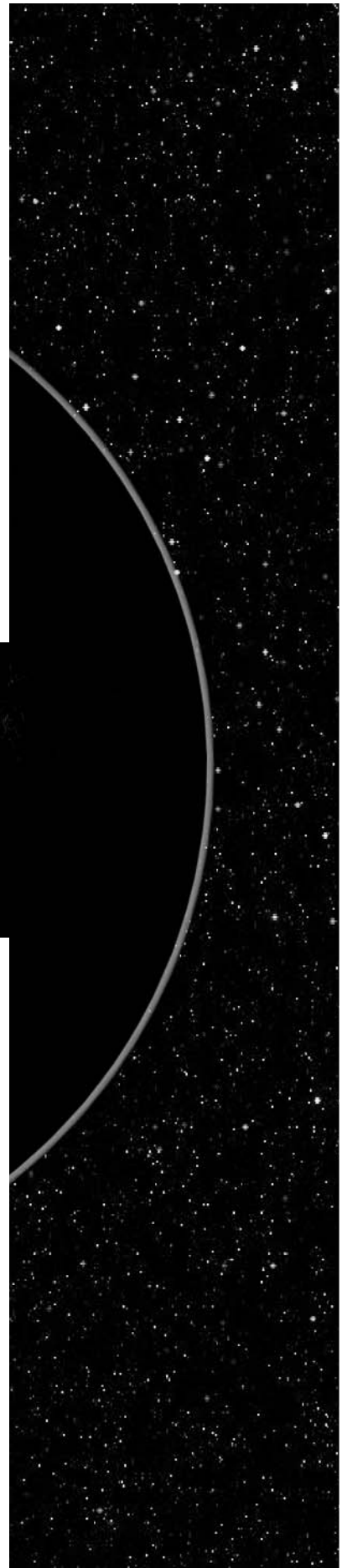
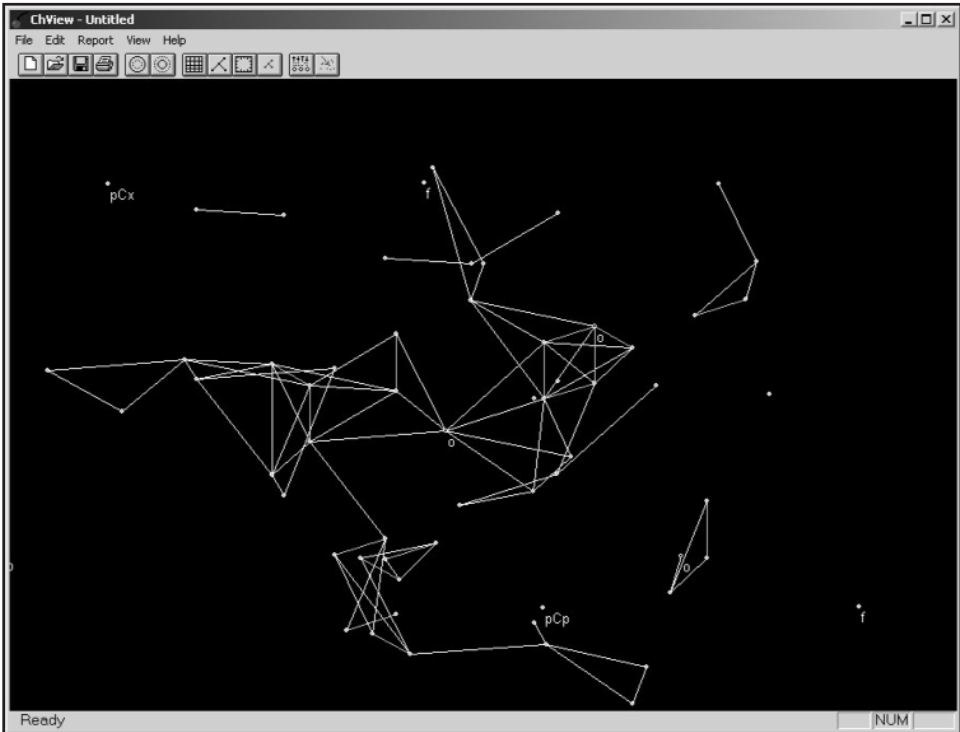
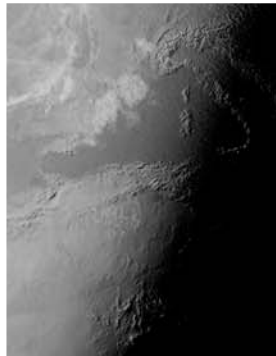
Optional: If too many star systems share the same x- and y-coordinates, the map will be difficult to read. It's okay to adjust the positions of some of these systems to separate them – after all, you're making this up.





STEP 3 - REMNANT SYSTEMS

Roll 3d for each system. On 15 or higher, the system contains the remnant of a burnt-out star or nova event; one (or more) of the stars is a white dwarf. There will be no gas giants or habitable planets in such a system. All other systems will have at least one gas giant, unless you decide otherwise. Put an "o" in the Display Name field for this system, and change the Spectral Class field to read "Od." Example: (*Trav3D03.lst*).



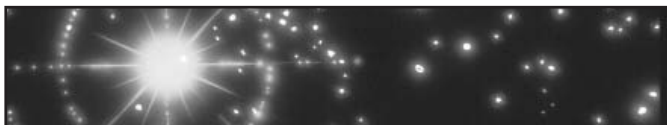
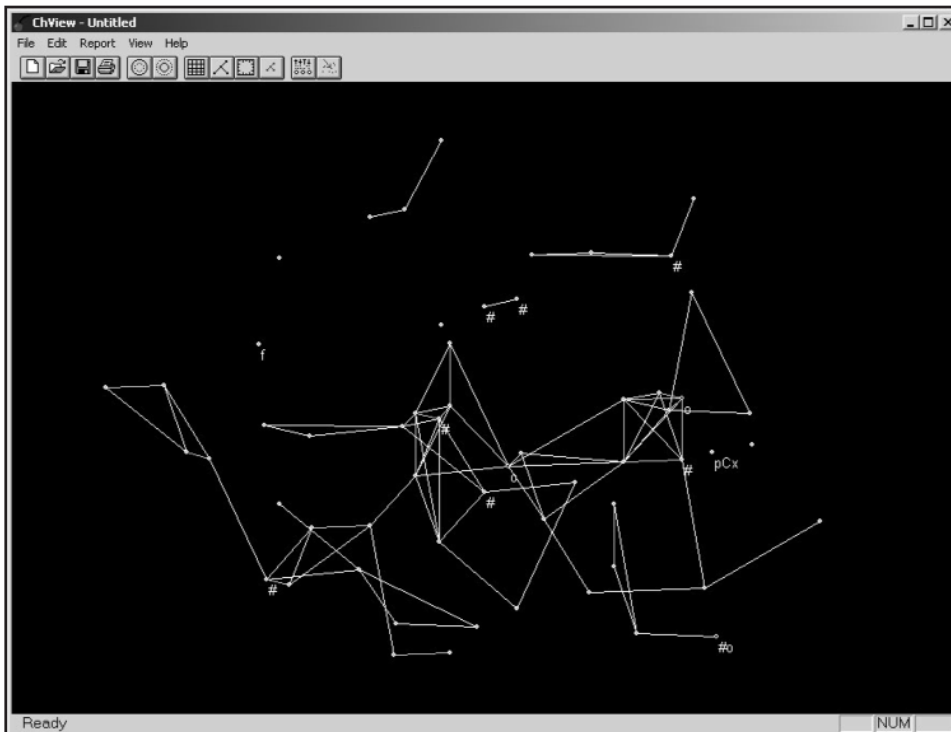
STEP 4 - MAINWORLD TYPE

Roll 3d for each system and consult the following table.

Mainworld Table

Roll	Mainworld
3-12	Planet
13-17	Asteroid Belt
18	Moon of a Gas Giant

For remnant systems, treat rolls of 18 as a planet-type mainworld (which will actually be the stripped core of the former gas giant). Mark a “#” in the Display Name field for asteroid belts, and a “.” for gas-giant moons – all others will be planets by default. Example: (*Trav3D04.lst*).



STEP 5 - RESOURCES

Roll 3d for each planet or moon, and consult this table.

Resource Value Table

Roll	Value	RAM
3-4	Very Poor	-2
5-6	Poor	-1
7-14	Average	0
15-16	Rich	+1
17-18	Very Rich	+2



Asteroid belts use a different table (still 3d, though):

Asteroid Resource Value Table

Roll	Value	RAM
3	Worthless	-5
4	Very Poor	-4
5	Poor	-3
6-7	Very Scant	-2
8-9	Scant	-1
10-11	Average	0
12-13	Abundant	+1
14-15	Very Abundant	+2
16	Rich	+3
17	Very Rich	+4
18	Motherlode	+5

RAM is Resource Abundance Modifier. Make an entry (e.g., “RAM=+1”) in the Notes field, but only if the Resource Value differs from Average (RAM=0).

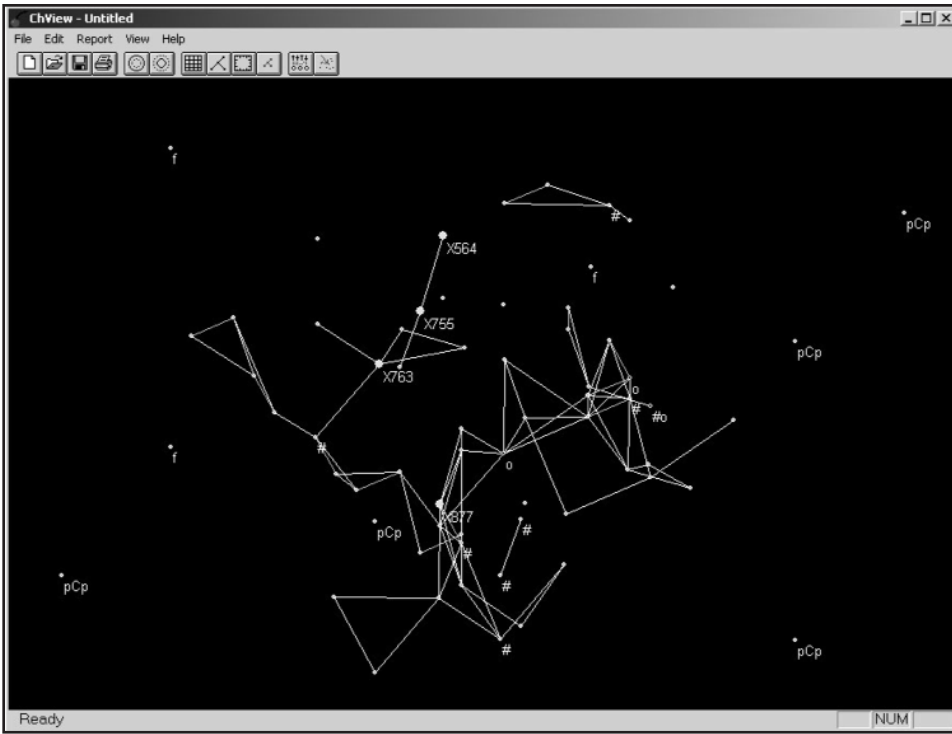
STEP 6 - HABITABILITY AND MSPR

Asteroid Belts and mainworlds in remnant systems are automatically uninhabitable (MSPR = 0), as are virtually all gas-giant moons. (You may, however, decide that such a moon is habitable – examples occur in canon.)

If the mainworld is a planet and the system does not contain a stellar remnant, roll 3d. On 6 or more, the planet is habitable (MSPR = 1+); on 7 or more, it is uninhabitable (MSPR = 0).

There will normally be 3-4 habitable mainworlds in a subsector; there is no need to record MSPR for the rest. Change the Spectral Class field to “G9,” which is the median value for stars with habitable planets.

For each habitable planet, roll 3d for each habitability factor (pressure, taint, hydrography, and climate) separately, and add the indicated modifiers to a base MSPR of 9 to get MSPR.⁶ Record each component that differs from Standard (e.g., Hyd=Dry) and the MSPR in the Notes field. (Reminder: Don’t record atmosphere as “Std/Pol” – ChView will read the “/” as end-of-field.)



You may decide to further reduce the MSPR for other factors (like incompatible local biology or weather) that are not included here. Be sure to make a note, and remember: each -1 cuts the habitability by a factor of 10!

For example: Roll 12, 12, 9, and 17. The mainworld has a Standard, Polluted atmosphere, Standard hydrography, and a Very Hot climate. Its MSPR = 9 + (-1) + (-1) = 7. You would add “Atm=Pol, Cli=VHot, MSPR=7” to the Notes for this star.

As an option, you can complete the physical UWP for the world and record it in the Display Name field. Size (in 1,000s of miles diameter) = 2d-7 + Atmosphere UWP Code; the result must be 5-A. Hydrographic (in increments of 10%) = 2d-7 + UWP Size Code. Keep rolling until the results are in their proper ranges.

Habitability Factors Table

Roll	Pressure	Taint	Hydro.	Climate
3	Thin (-1)	None	Dry (-1)	Frigid (-2)
4	Thin (-1)	None	Dry (-1)	Frozen (-1)
5	Thin (-1)	None	Dry (-1)	Frozen (-1)
6	Thin (-1)	None	Dry (-1)	Very Cold (-1)
7	Thin (-1)	None	Dry (-1)	Standard
8	Thin (-1)	None	Dry (-1)	Standard
9	Thin (-1)	None	Standard	Standard
10	Standard	None	Standard	Standard
11	Standard	None	Standard	Standard
12	Standard	Polluted (-1)	Standard	Standard
13	Standard	Polluted (-1)	Standard	Standard
14	Dense	Polluted (-1)	Standard	Standard
15	Dense	Polluted (-1)	Wet (-1)	Standard
16	Very Dense (-1)	Polluted (-1)	Water (-1)	Standard
17	Very Dense (-1)	Polluted (-1)	Water (-1)	Very Hot (-1)
18	Very Dense (-1)	Polluted (-1)	Water (-1)	Torrid (-2)

Hydrography Modifier Table

Pressure	UWP*	Hydrography	UWP
Thin (0.4-0.8 atm)	5/4	Dry World (5-35%)	1-3
Standard (0.8-1.2 atm)	6/7	Standard (35-85%)	4-8
Dense (1.2-1.5 atm)	6/7	Wet World (85-95%)	9
Very Dense (1.5+ atm)	8/9	Water World (>95%)	A

* The first number is for no atmospheric taint; the second, if polluted.

Climate Modifier Table

Frigid	<239K	Standard	261-320K
Frozen	239-249K	Very Hot	321-324K
Very Cold	250-260K	Torrid	324K+



STEP 7 - AFFINITY AND POPULATION

For each system, add MSPR to RAM to get Affinity (Aff = MSPR + RAM). Record Aff in the Notes if it differs from average (Aff=0).

Mainworlds with an Affinity greater than 0 are colonies, whether habitable or not. Mainworlds with Affinity 0 or less may become stations.⁷ There will normally be about 9-10 colonies per subsector, including the habitable worlds.

Rank each system in order of Affinity, from highest (1) to lowest (N). Resolve ties in reverse order of distance from the center of the subsector (closer is better). Sort your subsector file into this order.

If you want to include the effect of “Expansion from a Center” (p. T:FI91), determine the Distance Factor (see *Step 12*, p. 119) from your chosen center to each system, then subtract it from the Affinity score before determining rank order. In a link and branch development scheme, the nearest sector or subsector capital is the most likely expansion center. Use the center of the appropriate subsector if you haven’t created the actual capital yet.

Determine the PR (population) of the most populous world in the subsector: the one ranked #1 above.⁸ This will normally be the subsector capital, unless it is too close to the edge of the subsector (your call – the capital will then be smaller, but more centrally located). The actual figure depends on how developed you want your subsector to be:

Capital Development Table

Subsector Type	PR
Homeworld	9.0-10.9
Core Sector Capital	8.0-9.9
Periphery Sector Capital	7.0-8.9
Core Subsector	7.0-8.9
Periphery Subsector	6.0-7.9
Frontier Subsector	2.0-5.9

Determine also the population of the least populous colony (not station) in the subsector. Again, this depends on the state of development you desire.

Viable colonies can be established with as few as 100 people, but then must expand rapidly to survive (or maintain a high rate of turnover from outside). A population of 10,000 or more (PR 4.0) guarantees long-term stability; a huge initial colony effort might include 100,000 people or more (PR 5.0+). Any population over 1,000,000 (PR 6.0) qualifies as a mature world.

Now calculate a population scale factor (m):

$$m = ([\text{highest PR}] - [\text{lowest PR}]) / \log_{10}(\text{number of colonies})$$

You can get the last factor from the following table.

Logarithm Table

No.	log10	No.	log10	No.	log10	No.	log10
1	0.00	6	0.78	11	1.04	16	1.20
2	0.30	7	0.85	12	1.08	17	1.23
3	0.48	8	0.90	13	1.11	18	1.26
4	0.60	9	0.95	14	1.15	19	1.28
5	0.70	10	1.00	15	1.18	20	1.30

So if the PR of the most populous world is 7.7 (population 50 million), and the least populous colony world is the 12th, with a PR of 4.0 (population 10,000), then $m = (7.7 - 4.0) / 1.08 = 3.42$.⁹

Finally, set the PR for each colony world by using its Rank number (R) (above):

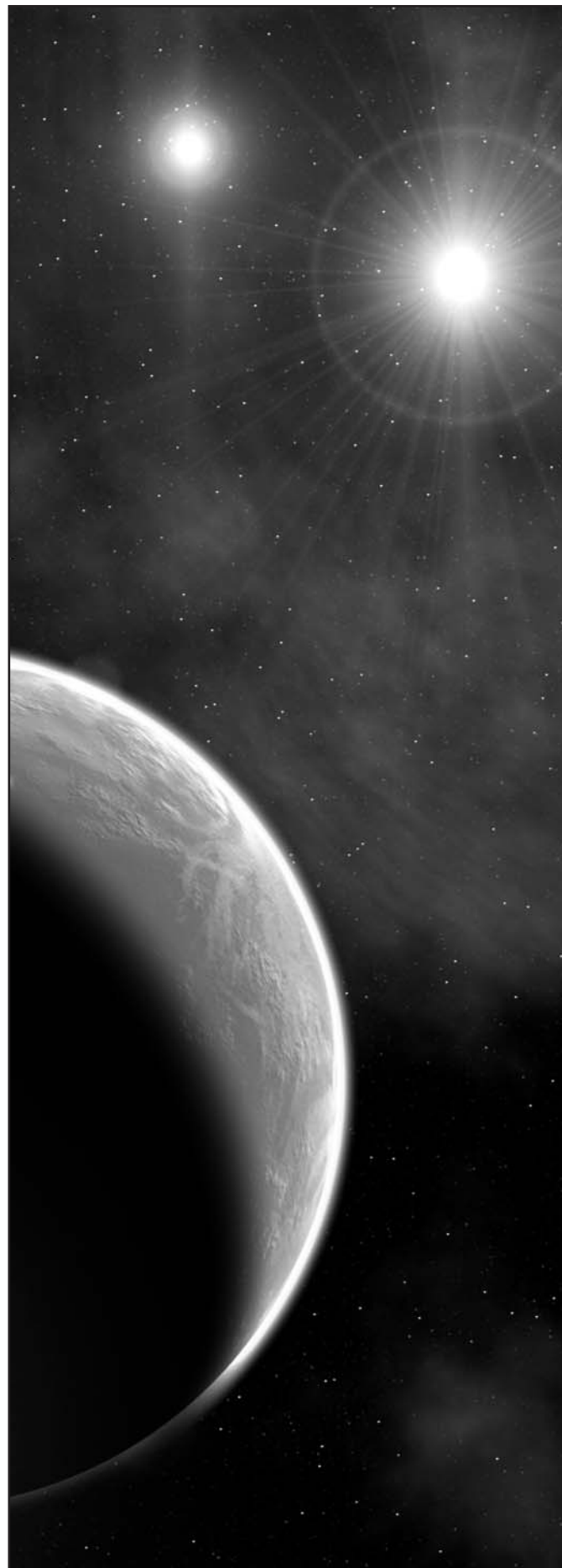
$$PR(R) = PR(1) - (m \times \log_{10}(R))$$

That is, to get the PR of the Rth colony world, multiply the log10 value for R (from the table) by the population scale factor (m), and subtract it from the PR of the highest population world in the subsector – PR(1).

To continue our example, the second most populous world (R = 2) has $PR(2) = 7.7 - (3.42 \times 0.30) = 6.7$, or 5 million people. The remaining worlds in sequence are shown in the following table.

World Population Rank Table

R	PR (R)	Pop (R)	R	PR (R)	Pop (R)
1	7.7	50 million	7	4.8	63,000
2	6.7	5 million	8	4.6	40,000
3	6.1	1.3 million	9	4.5	32,000
4	5.6	400,000	10	4.3	20,000
5	5.3	200,000	11	4.1	13,000
6	5.0	100,000	12	4.0	10,000



Each final population rating must be less than $(11 + \text{RAM}) - 1$ for every point of MSPR less than 5. Reduce the population rating below this figure if necessary. This will mostly affect high-population core subsectors. Record each PR in the Notes (and add a population digit to the UWPs, if required). Example: (*Trav3D07.lst*).

For example, suppose the fifth world above had MSPR = 0 and RAM = +2. Then its PR must be less than $(11 + 2 - 5) = 8.0$. So there is no need to reduce the PR determined above. You would add "PR=5.3" to the Notes field.

STEP 8 - STARPORTS

Homeworlds, sector capitals, and core subsector capitals will have Class V (A) starports. Periphery subsector capitals will have Class IV (B) or V (A) starports. Frontier subsectors will not have better than Class III (C) starports.

For the rest, roll 3d and add PR – round down to the nearest whole number. Starport class will not be higher than that of the capital (if any). Annotate starport class (UWP letter code) in the Display Name field.

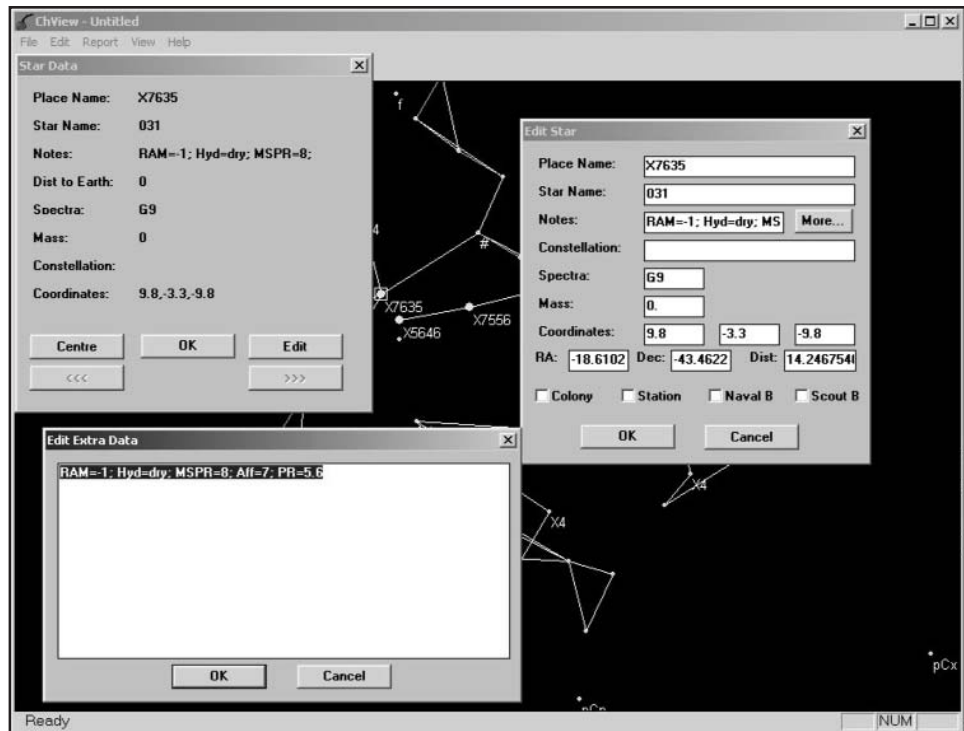
Starport Table

PR 6.0+		PR <6.0:	
18+	V (A)	12+	III (C)
14-17	IV (B)	9-11	II (D)
10-13	III (C)	6-8	I (E)
9	II (D)	5-	0 (X)

STEP 9 - BASE TECHNOLOGY LEVELS

Choose base technology levels (TL) for each colony world. Base TL is the level of technology that the world's population most commonly uses and can produce for itself with local skills and resources. Tech levels will fall between the minimum and maximum possible for each world; add TL to the Notes (and to the Display Name UWP).

Minimum TL is based on facilities (starport class), environment (MSPR), or population (PR); use the highest number among these. A world with a Class V (A) starport will have a minimum TL of 9; one with a Class IV (B) starport will have a minimum of TL7; with a Class III (C) starport, GTL5 (TTL3). Uninhabitable worlds (MSPR = 0) have an absolute minimum GTL5 (TTL3). Life at this TL is *extremely* tenuous, however; GTL6 (TTL4) is better. Habitable worlds have a minimum TL0, unless their atmosphere is Polluted, where it becomes GTL5 (TTL3) (for local production of filter masks).



Any world with a PR greater than its MSPR has a minimum GTL of $(\text{PR} - \text{MSPR}) \times 2.5$, rounded down (but no higher than TL9); it helps here that you are using decimal PRs.

Maximum TL is the maximum for your campaign setting, though only the homeworld (if that) and a handful of high-population worlds in the core will achieve that level. Core subsector worlds are 1-2 GTLs (1-3 TTLs) below campaign maximum; periphery subsector worlds are 1-2 GTLs below that. Frontier subsector worlds will normally be at their minimum TL, but could be as advanced as the periphery if desired. Completely isolated worlds have their overall TL limited to their Population Rating (thus, low-population colonies on uninhabitable worlds tend to die when cut off from the outside).

STEP 10 - TRADE CLASSIFICATIONS

Four trade classifications (see below) are important on this level. Assign them to each colony world by inspection, based on habitability factors and population, and note them in the Display Name and Notes fields:

Agricultural (Ag) worlds have large portions of their economies devoted to agriculture. They must have MSPR > 0 with standard hydrography, and a population rating of 5.0-7.9.

Extreme (Ex) worlds are inhospitable planets, requiring the use of domes or other habitats. They have MSPR = 0.

Industrial (In) worlds have large production bases and can easily engage in the manufacture of finished goods. They must have MSPR = 0 or a Polluted atmosphere, and a population rating of 9.0 or more.

Non-industrial (Ni) worlds are forced to import much of their finished goods. Non-industrial worlds have a population rating less than 6.0.

STEP 11 - TRADE STATISTICS

Using the information generated thus far, determine trade statistics for the colony worlds in your subsector. These are the only mainworlds likely to result in the creation of long-distance trade routes. Record WTN in the Notes.

Unmodified World Trade Number (UWTN)

$$UWTN = TL \text{ Modifier} + \text{Population Modifier}$$

GTL	TTL	TL Modifier
0-2	0-1	-0.5
3-5	2-3	0
6-8	4-8	0.5
9-11	9-E	1
12-13	F-G	1.5

Population Modifier = PR / 2. Round down to the nearest multiple of 0.5.

World Trade Number

$$WTN = UWTN + \text{Port Modifier}$$

Port Modifier Table

Starport Class						
UWTN	V	IV	III	II	I	0
7.0+	0	-1	-1.5	-2	-2.5	-5
6.0-6.9	0	-0.5	-1	-1.5	-2	-4.5
5.0-5.9	0	0	-0.5	-1	-1.5	-4
4.0-4.9	+0.5	0	0	-0.5	-1	-3.5
3.0-3.9	+0.5	+0.5	0	0	-0.5	-3
2.0-2.9	+1	+0.5	+0.5	0	0	-2.5
1.0-1.9	+1	+1	+0.5	+0.5	0	0
<1.0	+1.5	+1	+1	+0.5	+0.5	0

STEP 12 - TRADE ROUTES

Determine the bilateral trade number (BTN) for each pair of colony worlds in the subsector, and between the subsector capital (and most populous world, if different) and the capitals of adjacent subsectors. The BTN is the sum of the WTNs for each pair, adjusted downward for the distance between them by a distance modifier and upward for favorable trade classifications.

$$BTN = WTN1 + WTN2 - \text{Distance Modifier} + WTCM$$

For adjacent subsector capitals that haven't been generated yet, you can use the following WTNs:

WTN Table

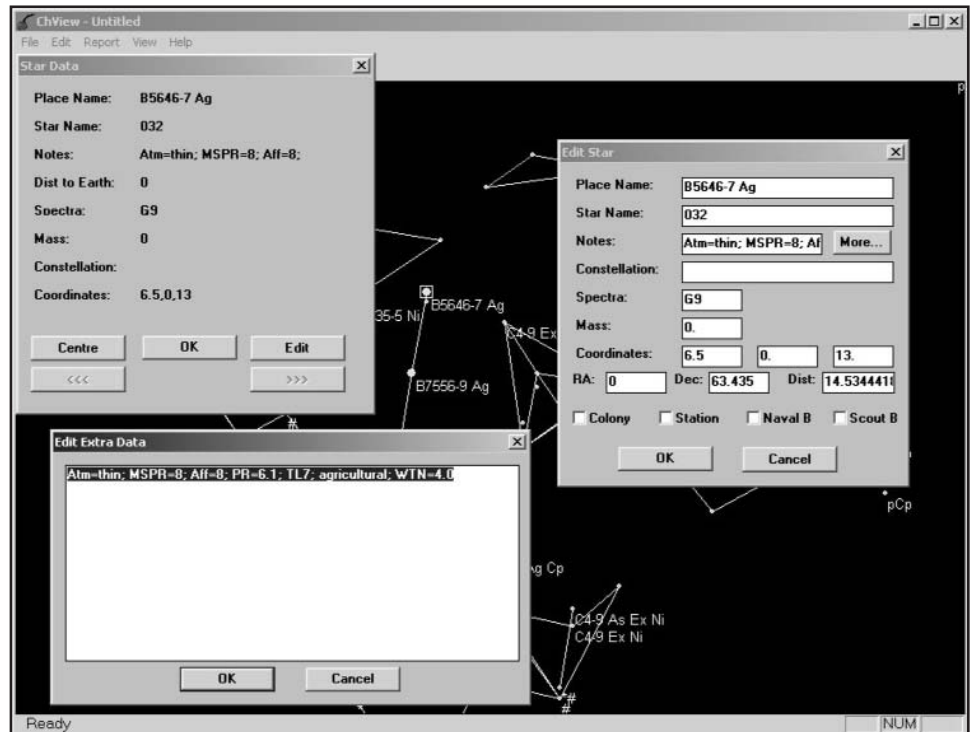
Subsector Type	WTN
Homeworld	6.0
Core Sector Capital	5.5
Periphery Sector Capital	5.0
Core Subsector	5.0
Periphery Subsector	4.5

Use ChView to determine the shortest route. Select both stars; from the Reports menu, choose Route. The result is a text file showing the shortest route possible using the leg lengths you specified in the Preferences/Routes menu. The routes are also selected on the main ChView screen. By adjusting the leg lengths, you can calculate routes for different jump parameters.

Distance Modifier Table

For destinations outside your charted space, use the straight-line distance:

Distance (jumps)	Distance (ly)	Distance Modifier
0-1	0-3.9	0
2	4.0-7.9	0.5
3-5	8.0-19.7	1
6-9	19.8-35.5	1.5
10-19	35.6-75.0	2
20-29	75.1-114.5	2.5
30-59	114.6-233.0	3
60-99	233.1-391.0	3.5
100-199	391.1-786.0	4
200-299	786.1-1,181.0	4.5
300-599	1,181.1-2,366.0	5
600-999	2,366.1-3,946.0	5.5
1000+	3,946.1+	6



World Trade Classification Modifiers (WTCM)

- If one world is Ag and the other is Ex: +0.5
- If one world is In and the other is Ni: +0.5
- Worlds are not part of the same state: -0.5

Trade Routes Table

BTN is limited by the smaller WTN, to $(2 \times \text{WTN}) + 1.0$.
 BTN can never exceed the smaller WTN + 5.0.

A trade route exists between each pair of worlds if their BTN equals a certain value:

Route	BTN	Route	BTN	Route	BTN
Main	10+	Feeder	9+	Minor	8+

Remember: there may be a route passing through this subsector, connecting two worlds outside it. Mark each point along the routes with “*” (or other station symbol) in the Display Names field.¹⁰ Example: (*Trav3D12.lst*).

STEP 13 - BASES AND COMMUNICATIONS ROUTES

Each subsector will have one main naval base (at the subsector capital), and a number of smaller naval bases equal to about 40% of the Class V and IV (A-B) starports in the subsector. Spread naval bases out among these ports to cover as much of the subsector as possible (but you may want to leave a few flaws or gaps in coverage, to keep things from becoming too boring). Record the naval base in the Notes and in the Display Name field.

Establish Xboat communications routes, using the highest jump number available at your campaign’s maximum TL to connect naval bases to one another. Use a “link and branch” hierarchy, with routes in the subsector concentrating on the subsector capital, and from there to the sector capital and so on. Place communications routes on existing trade routes whenever possible, and try not to overdo it – this kind of network is expensive.

Each stop on a communications route is an Xboat station, run by the scouts. One Xboat station per subsector is a much larger scout way station, usually located on the most central world with PR 5.0+. Mark an Xboat station with a “+” in the Display Name field, and an Xboat way station with a “<”. Example: (*Trav3D13.lst*).

STEP 14 - STATIONS

Place additional stations in all the systems along your trade routes and in any other systems you think are important (naval stations, scientific research stations, trade stations, etc.). Note an abbreviated UWP (starport code, PR, and TL; base codes) in the Display Name field, and expand on it in the Notes.

Population rating will range from 0.1 (isolated research facility) to 5.0 (crossroads of major trade routes); most stations will have resident populations of less than 10,000 (PR < 4.0). Some typical values are shown below.

Typical PR Values Table

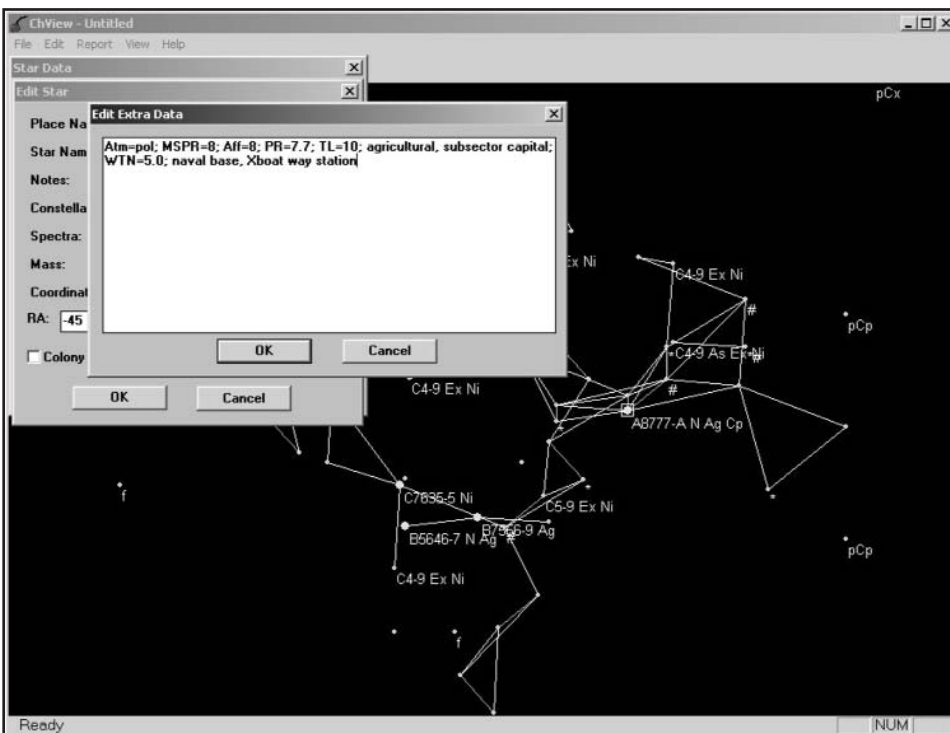
Research Station	0.1-4.0	Feeder Route	2.0-4.5
Minor Route	1.0-3.5	Naval Station	2.5-4.0
Trade Station	1.5-2.0	Major Route	3.0-5.0
Xboat Station	2.0-2.5	Way Station	4.0-4.5

Distribute Class III (C) starports along major and feeder routes to accommodate large, unstreamlined freight and passenger liners, at the best jump rating routinely available. Any remnant system on a trade route will have a Class II (D) starport at a minimum (such stations charge premium rates for liquid hydrogen fuel, since there is no gas giant available). You can set all other stations to Class III (C) in the core, Class II (D) in the periphery, and Class I (E) in the frontier, or determine randomly if desired.

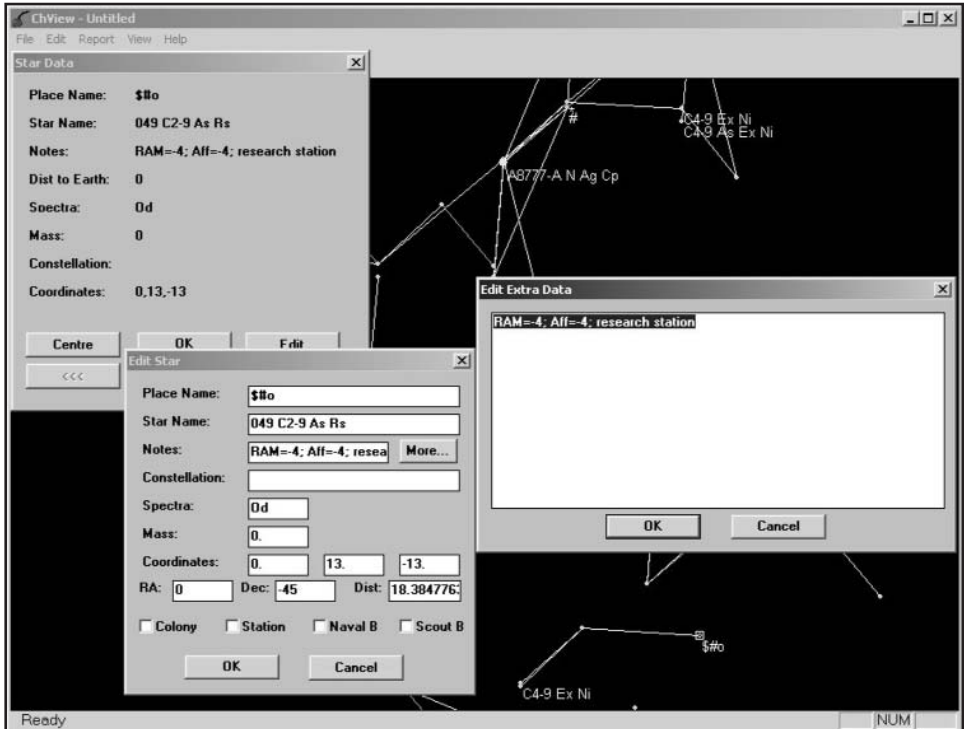
Starport Distribution Table

Roll 3d and add PR (round down):

12+	III	C
9-11	II	D
6-8	I	E
5-	0	X



Most stations will have GTL5(9) (TTL3[9]); research stations may import technology up to the campaign maximum, if required. Example: (*Trav3D14.lst*).



STEP 15 - SCOUT BASES

For each starport of Class II (D) or greater, roll 2d and add 1 for Class IV (B), 2 for Class III (C), and 3 for Class II (D). On 10+, a scout base is present. Scout bases support PR 3.0-3.5; raise the local population to this level if required. Note scout bases in the Display Names field and in the Notes.

STEP 16 - FINISHING UP

Any system that does not contain a colony or station is automatically PR 0.0, TL0, and Starport Class I (E) (in the core) or Class 0 (X) (elsewhere).

For the most significant or interesting systems, move the data from the Display Name field into the Stellar Name field (this merely requires moving a “”), and replace it with a name for the mainworld. Example: (*Ash.lst*).

From here on, you may want to switch to using a .chv file, to take full advantage of the features available in ChView. Draw routes on

your chart by selecting each pair of stars on the route in turn, and linking them using the Edit/Routes menu. You can have up to four different types of routes, with different colors and line types. For ChView to display them correctly, each route must be simple, however: it cannot loop back on itself. Example: (*Ash.chv*).

You now have a complete subsector, ready to begin play. The structure is spare, but solid: you can focus on any part of it and add detail, using the world-generation system of your choice, without unbalancing the rest. You can also move to adjacent subsectors and repeat the process with reasonable assurance that changes to routes and such will be minor.

NOTES

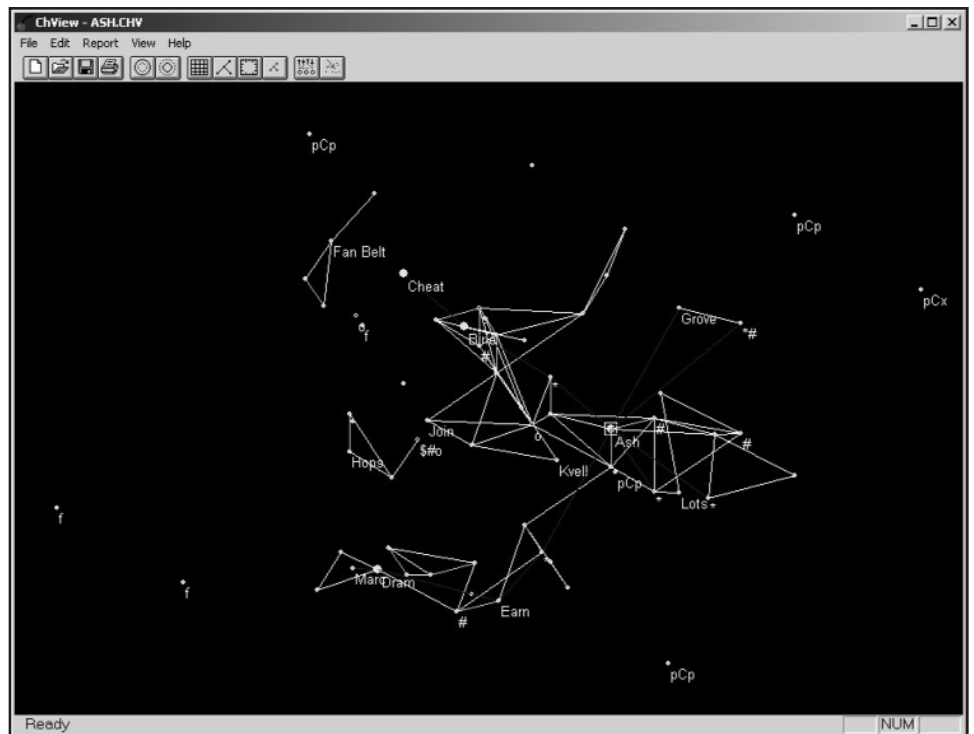
1. One of the advantages of an online magazine is that I'm safe in assuming most readers have access to a computer.

2. This is nothing new; logarithms appear throughout *Traveller*, because they are so useful. Normal-

ly, however, we hide them from the math-phobic in charts and tables.

3. That is, they cover the maximum area for a given distance between adjacent centers.

4. More information on cuboctahedra can be found at www.teleport.com/~pdx4d/sphpack.html.



The corners of a unit cuboctahedron are given by (+/- 1, 0, 0), (0, +/- 1, 0), (+/- 1/2, +/- 1/2, +/- 1/sqrt[2]).

5. This is not an arbitrary choice. It is based on an analysis of known star positions (particularly from *Supplement 10: The Solomani Rim*, and the boardgame *Imperium*) and their canonical jump distances. At 3.95 ly/jump, Prometheus (A Cen., 4.3 ly) is two jumps from Terra, but so is Junction (Wolf 359, 7.6 ly); Sirius (8.7 ly) is three. It is also (not coincidentally) the average distance from the center of a hexagonal prism 1 parsec high and 1 parsec across, to the center of any of the 20 adjacent hexagonal prisms.

6. Quicker and dirtier alternative: Roll 3d once for each habitable world and consult the table below.

MSPR Table

Roll	MSPR	Roll	MSPR	Roll	MSPR
3-7	9	11-14	7	17	5
8-10	8	15-16	6	18	4

Using this method, you will not be able to calculate Trade Classifications (Step 10), which means you will not be able to use them to determine trade routes (Step 12).

7. The colony/station split is a legacy from an earlier version of ChView, and in turn from C.J. Cherryh's novels. It seems apt, however, so it will be retained. In the current version of ChView, under the View/Preferences/Route menu, you can name up to four Groups to appear as check boxes in the stellar description. I recommend "Colony," "Station," "Naval Base," and "Scout Base."

8. Contrary to previous star-mapping systems in *Traveller*, population levels are (mostly) not random – there are predictable relationships and patterns. This one is called the "Rank-Size Distribution," and derives originally from city populations in developed countries.

You may feel that this produces colonies that are very similar to one another in their statistics, especially at the lower end. This is not unrealistic (most small towns are at least superficially similar), but remember also that this article doesn't address details like government type and Control Rating (Law Level) which will make a big difference up close.

9. Alternate: This is the same as saying:

$$Pop(R) = Pop(1) / R^m$$

That is, the population of the Rth colony world (Pop(R)) is the highest population (Pop(1)) divided by the Rank number (R) raised to the power of (m), the population scale factor.

10. Step 12B (Optional) – Split Technology Levels. You can now go back and refine your TLs, to account for imported technology. Each colony world on a trade route will have an import TL equal to the highest-TL world it routinely trades with (BTN > 0), and no lower than TL9. (You can ignore import TL if it is the same as base TL, of course.) Split TLs should be written "base TL(import TL)" in ChView to avoid using the "/" character.



LIST OF ABBREVIATIONS, TERMS, AND SYMBOLS

2d, 3d	two or three 6-sided dice	.	mainworld is the moon of a gas giant
2D, 3D	two- or three-dimensional	MSPR	maximum sustainable population rating
Aff	affinity; measures how desirable a world is for colonization	N	number; naval base
Ag	agricultural	Ni	non-industrial
As, #	asteroid belt	o	no gas giant; a remnant system with a dwarf primary
BTN	bilateral trade number; measures the amount of trade between two worlds	parsec	3.26 ly; the standard jump distance
colony	habitable world or one with significant resources	periphery, p	younger, but still organized regions of an interstellar state
core, c	older, mature, settled regions of an interstellar state	Pop	population (the actual number)
Cp	subsector capital	PR	Population Rating ($\log_{10}[\text{population}]$)
Cx	sector or regional capital	R	rank number
Ex	extreme environment (inhospitable)	RAM	resource abundance modifier
frontier, f	newly settled or unorganized regions on the fringes of an interstellar state	remnant	remains of a post-main sequence stellar event (nova, etc.); see pp. T:FI49-51
GT	GURPS Traveller	\$	station, not otherwise specified
GTL	GURPS technology level	S	GURPS Space, 3d Edition ; scout base
homeworld	world of origin of a space-faring species and its interstellar state	station	inhabited system, other than a colony
In	industrial	T:FI	GURPS Traveller: First In
jump	distance covered per jump number; for this article, defined as 3.95 ly	T:FT	GURPS Traveller: Far Trader
log10	logarithm to the base 10; $\log_{10}(x) = y$ means the same as $10^y = x$	TL	technology level
ly	light year; 9.5×10^{15} meters or 63,000 astronomical units	*	transit (refuel) station
m	population scale factor	TTL	Traveller technology level
mainworld	most important world in a star system, representing the system as a whole	UWP	universal world profile; see p. GT123 or pp. T:FI94-95
		UWTN	unmodified world trade number
		X, +	Xboat station
		W, <	Xboat way station
		WTCM	world trade classification modifier
		WTN	world trade number; measures the size of a world's economy (or its export sector)

REFERENCES AND RESOURCES

The ChView files for the above examples can be downloaded from jtas.sjgames.com/gifbin/2000/trav3d.zip.

Methods and considerations for 3D mapping have been discussed before, particularly on pp. S146 and T:FI47. Please see these sources for more information.

A resource on 3D star maps, provided by Winchell Chung (www.clark.net/pub/nyrath/starmap.html).

There are some great tools for generating complete star systems available as freeware. One excellent package (that fully supports **GT: First In**) is Stuart Ferris' Heaven and Earth found at www.downport.com/wbd/HEAVEN_&_EARTH.htm.

MacOS users may prefer Robert Prior's Metator software at www.downport.com/freelancetraveller/infocenter/swlist/macprogs.html.

For other freeware programs, check out www.clark.net/pub/nyrath/smap07.html.

For those who would like a refresher on logarithms and other math concepts, a decent place to start is mathworld.wolfram.com/Logarithm.html.

For a scholarly treatment (all online) of some of the geographic ideas that went into this article, try Stephan, *The Division of Territory in Society* at www.ac.wvu.edu/~stephan/Book/contents.html.

Try also the indefatigable Mr. Chung at www.clark.net/pub/nyrath/smap05d.html.

ChView is copyright © 1998 by Jo Grant and Ben Lin. All rights reserved. ChView (including all program, data, and documentation files) is the sole property of Jo Grant and Ben Lin and must not be copied or reproduced in any form without permission from one of the copyright owners, except for personal use.

Comments and suggestions can be sent to sol@nova.org.

File updates can be obtained from www.maths.tcd.ie/~jaymin/chview/ or members.nova.org/~sol/chview/, or by anonymous FTP from [ftp.maths.tcd.ie](ftp://maths.tcd.ie) in the "pub/jaymin/chview" directory or from chview.nova.org in the "users/sol/chview" directory.

Jumping to Conclusions

by Mike Darke

Published December 5, 2000

Jump technology has many effects on the nature of interstellar society in *Traveller*, including some which are not widely appreciated. This article is intended to sketch some of those consequences and provide some ideas for their use in a campaign.

INCRECREDIT

In a knowledge-driven economy, fast ships imply commercial advantage. Therefore, the Imperial Navy might become a substantial commercial power, involved in banking and commodity speculation – they have the fast ships, why not recover some of their cost? (Since in some *Traveller* milieus, local currencies coexist with the Imperial credit, there must be either a fixed legal exchange rate or the opportunity for currency speculation. Therefore, this is an information-based economy, since currency prices will vary with investor confidence and thus with information about the relative health of any given planetary economy.)

In out-of-the way areas, the Navy Bank (INCredit) is a significant player in particular, locally strategic industries: data gathering and analysis, research, astronomy, mining, shipbuilding, and ship repair, among others. It is a major rival – often the only rival – to the megacorps, particularly where a corp has an effective monopoly in planetary affairs. Its financial clout may give it *de facto* control over local industries. It may act as a guarantor for loans, especially for starship purchases – and you don't skip on *that* collection agency!

Also, any information INCredit acquires may reach Imperial Naval Intelligence. Adventurers may have to explain their financial difficulties to uniformed INI officers, in a bank they believed was strictly civilian. The ex-scouts may find the only way to fund their campaign against Sternmetal's dodgy dealings is to give their painfully acquired information to a front for the much-despised Navy. INCredit may insist that Navy-qualified engineers (easily suborned, since the Navy can refuse to renew their engineers' papers) are employed by certain ships.

Once the bank's nature and its links to Navy Intelligence become known, its sponsorship may help in appearing respectable (especially if one is not).

Or perhaps the heroes are Imperial Navy officers, lobbying to set up INCredit, then given the job of setting up a trial branch as a project (with their careers on the line, of course); or seconded as Naval Intelligence operators analyzing INCredit data. Many suspicious persons may come through

the doors of the INCredit office, especially before its connections become widely known. (For this to be really credible, it would have to be set quite early in the canonical timeline, maybe even as far back as Year 0, since the connection between fast ships and commercial clout is obvious.)

SCIENCE CHANGES EVERYONE

Imperial Navy policy actively supports and regulates physics research; since technical capability translates directly into military power, it would be negligent not to. Consequently, there are IN technical officers in senior “advisory” positions in all sanctioned Imperial physics labs and Research Stations (except the ones maintained by the IISS; see below); and any lab which attempts basic physics research without Navy oversight will find itself subject to unusually frequent and stringent health and safety inspections, financial audits, security vettings, and so on. Likewise, ships contracted to deliver supplies or mail to independent labs may find they are investigated with unusual rigor.

One consequence of all this is that Naval Intelligence is composed largely of technical officers and economists, with bizarre effects on their more physical missions. Techies being techies, some IN intelligence operations will rely on unusual and/or exotic equipment. Similarly, Naval Intelligence will rely heavily on comms interception and bugging.

This effect provides good chrome for the GM's use, and could make for an interesting career path for an adventurer.

WATCHING THE WATCHMEN

However, the most important consequence of the *Traveller* jump drive concerns the relationship between the throne, the Navy, and the Scout Service. The decentralized (some would say anarchic) nature of IISS operations, far from being frowned on by the Imperial hierarchy, was enshrined during Arbella's rule and has been actively encouraged by every subsequent emperor. This, combined with the long-standing rivalry between the Navy and the IISS, is the Iridium Throne's insurance against systematic coup preparations by a rogue Sector Admiral. Therefore, no emperor will ever abolish the IISS or agree to its becoming part of the Navy; specters of the Barracks Emperors loom whenever it's suggested.

The wartime subordination of the Scout Service to the Navy is necessary for the survival of the Imperium and is thus held to override (some) precautions against coups; but some IISS vessels, informally known as whistleblowers, will have overriding orders from Capital (backed by Imperial Courier's Warrant).

The IISS will have heavy encryption in place for all internal messages, and a core of jump-6 vessels in IISS service; this in turn implies IISS has financial clout in the same way as the Navy. The rivalry may help characterization and development, both of scouts (the safeguard of the Imperium against naval tyranny!) and of Navy crew (who do those scouts think they are, anyway? Scruffy, disorganized, insolent . . .). There may be occasional encounters with IISS ships which will refuse even to identify themselves, much less stop to chat. There is bitter rivalry between IISS covert operators and IN Intelligence, leading to situations that might draw in adventurers.

IISS runs its own technical schools and research facilities outside of IN control, just in case Navy researchers find something genuinely new that gives them a decisive technical edge – the balance of power must be maintained. (This is known to senior scout administrators as “doing the Navy two-step.”) Equally, Naval Intelligence recruits covert researchers in the IISS physics schools – the Navy's loss of prestige would be disastrous should the Scouts come up with something new. Scout Service-sponsored physics and engineering qualifications may not be acceptable to employers with strong Naval connections (for instance, INCredit).

There are interesting possibilities for covert IISS snooping operations in Navy-held systems, perhaps using asteroid-hulled ships. Perhaps they clash with Zhodani or Solomani intruders, and must drive them off or bring them to the attention of the Navy security details, without compromising their own mission.

TO PRESERVE THE COMMON LIFE, OR, THE LONG NIGHT RETURNS

Finally, a campaign suggestion, starting on 270-1115, in Ilelish sector:

An IISS whistleblower crew gets wind of unusual fleet movements, apparently set in motion by Archduke Dulinor, who departed for Capital weeks ago. Someone has booked air time on every broadcast channel on Dlan, a year in advance. The party's best sources of Navy rumors have disappeared or are refusing even to speak to them. And a student at the Navy Staff College on Dlan was talking about working up a logistics exercise to bring the Ilelish fleet to Core . . .

If he wishes, the referee can tell the players that their actions will determine whether his campaign story follows the *GURPS Traveller* path or the *MegaTraveller* history. Of course, the players will know the consequences of failure, but the groundwork for subsequent campaigns has already been done for the referee, whether the heroes get through or not. The group should be very experienced, with IISS Clearance

3, probably built on 250 points. They will be a mixed bunch, mostly from Fleet and S-3, but others are possible. The referee should disallow inappropriate disadvantages.

This is a four-stage campaign, starting with investigations, including an infiltration of the Naval Staff College looking for the “exercise” plans recently prepared by staff there (as a “theoretical” teaching aid). It will also involve the usual gathering of starport scuttlebutt, with likely intervention by Navy heavies, either to discourage this sort of nosiness or just on general principles.

The second stage should involve a very fast run across the Imperial heartland in a jump-6 IISS courier, dodging Ilelish Navy Intelligence and Fleet elements. The referee will need to lay out sector maps of the route from Dlan to Capital with an eye to jump-6 transit, and produce (or adapt) a design for an IISS jump-6 courier vessel (the *Khadumir*-class from *T:FI* would do, although it's a little flimsy for this sort of operation). Secrecy is imperative for the stability of the Imperium, so the party can't just broadcast Dulinor's villainy to all and sundry. Once the conspiracy is properly under way, Dulinor will issue orders to board and temporarily impound IISS couriers coming from Dlan, so there will be plenty of opportunity for sneaking around trying to avoid Navy destroyers – and for outrageous bluffs.

Also in this stage, the crew discovers that one of their number is a Navy Intelligence infiltrator, whose cover should be blown at an appropriate moment. (This needs prior arrangement by the referee and the infiltrator's player.) He may or may not be a vital crew member, but he will have high clearance, so he may be able to convince the crew that he is on their side and that he will be useful to them . . . but he will probably get stuffed out the airlock at the earliest opportunity. If his crewmates push him out of the lock in a suit, his clearance is adequate to commandeer a Navy fast courier of his own . . . so that he can rescue his former comrades at a crucial point later on.

The third stage should involve making planetfall on Capital, getting to someone in authority, and convincing them that there's enough evidence to act. Unfortunately, the person they go to has been suborned by Dulinor's people, so the survivors flee the area with the Ilelish Guard in hot pursuit – thus confirming their suspicions, if they were still in doubt. (This is an appropriate time for their infiltrator friend to show up and rescue them.)

In the fourth and final stage, the team has been betrayed by their superiors, and the finale involves staying one step ahead of pursuit while infiltrating the baggage handlers around *INS Sargon* – disguise yourself as a cargo loader, smuggle a missile warhead onto his gig, and be prepared to push the button personally . . . This is ideal for the Navy infiltrator, who will know the appropriate protocols. It also leaves the surviving IISS characters wondering if he'll really do it . . .

Referees with a taste for film noir might stage an ending where the survivors of the whistleblower crew, captured by Dulinor's people and expecting to be shot, are shown live footage of the Duke and his entourage boarding the gig, where they recognize a familiar face among the baggage handlers. Patriots with style will go to their deaths with a certain swagger, knowing that they have done their duty.

The Wandjina Theory

by Ian Mackinder

Published April 4, 2000

The *Wandjina Theory* is a controversial hypothesis originally published in 1093 by AAB researcher Dr. Gimaagin von Sandberg. Dr. Sandberg theorized that the Ancients were actually several distinct races, at least two of which utilized proto-Humans (in various geneered forms) as colonists and troops. All of these “Ancient Empires” were destroyed in a series of protracted wars that ended 250,000 years ago. The name refers to figures in cave paintings (*Wandjina* in the local language) found on the Australian continent on Terra, which some observers believe represent extraterrestrials.

Utilizing technology salvaged from their former masters, several groups of Human survivors, Dr. Sandberg believes, rose to establish their own interstellar empires. They colonized worlds, uplifted several races, and conducted other activities mistakenly attributed to the Ancients. Unable to maintain or duplicate their salvaged technology, all of these “Wandjina cultures” became extinct or regressed to pre-space-flight levels before the rise of the Vilani 20,000 years ago.

While most scientists totally reject the Wandjina Theory, a few concede that certain aspects warrant further study. The theory has attracted much interest in popular entertainment (and in fringe groups as diverse as Superioriti and the Church of the Chosen Ones), which has not helped its standing in the scientific community. Research continues, almost entirely using private funding.

Every *Traveller* player knows about the Ancients (“Once upon a time, there was this little Droyne named Grandfather, who was *extremely* clever . . .”), but what does the average Imperial citizen know about them? Not everybody agrees with the “official” story, and a number of questions remain unanswered (Why were they so interested in Humans? Why are so many of their surviving bases so different from each other? Did they destroy themselves, and if so, why?).

Simply put, theories abound. The “Wandjina Theory” is one of the more controversial ideas, fed by the general uncertainty on the subject. From the point of view of a “non-expert,” it is as plausible as anything else. The case for Wandjinas is listed below. Counter-arguments from mainstream science follow in brackets.

● Given a head start via cultural influence, salvaged artifacts, and/or genetic engineering, 250,000 years is arguably enough time for the rise and fall of at least one interstellar civilization. [The massive destruction left by the Final War would have impeded progress. And given the likely existence of automated weapon systems and booby traps, the destruction could have continued for some time. Also, interstellar civilizations did arise – Vilani, Solomani, and Zhodani, among others.]

● Subsequent civilizations could have destroyed or misinterpreted key evidence. [Admittedly, this has always been a serious problem for archaeologists. However, that something *could* have happened is not proof that it *did*.]

● The huge diversity of Ancient sites and artifacts, the extent and duration of the Final War, and the enormous range of weaponry used in it, all cast doubt as to whether one race or culture could be responsible. [Clearly, the Ancients had a radically different approach to standardization than that of Humaniti or any other sophont; it seems that the technology in a new colony or base was often developed “from the ground up.” But, however varied the designs, it is indisputable that all were designed for the same species.]

● Mainstream theories do not satisfactorily explain the number and diversity of Human populations established over such a wide area prior to the First Imperium. The suggestion that all of them were mere servitors of the Ancients is clearly inadequate. [This only proves that the Ancients used many Humans, in many different environments, for many different purposes. Nothing more.]

● The First and Second Imperiums were entirely capable of suppressing any evidence of Wandjinas to suit their own ends. To this could be added the Third Imperium during such troubled times as Cleon III’s reign or the Civil War. [True, as far as it goes. But once again, the possibility of something happening is not proof that it did.]

● The Droyne have been put forward as descendants of the Ancients. However, that species is renowned for its stability and lack of ambition – hardly what one would expect of such a lineage. Unless there was a truly dramatic mutation involved, the Droyne would have had only a secondary role at best, possibly as servitors to one of the so-called Ancient Empires. [The “Final War” undoubtedly acted as a form of unnatural selection – wiping out most of the ambitious or advanced Droyne. It is also possible that the survivors underwent a cultural backlash against technological advancement. It is unnecessary to invent “super-Droyne” to explain this alleged change in their behavior.]

Adherents of the Theory continue to search for proof. Identifying the “Ancient” empires has been a popular activity, with most of the major races (and a lot of minor!) being considered. Locating and verifying the Wandjina Homeworld(s) has also been a high priority, with Terra, Vland, Zhdant, and Darrian being the most popular candidates. However, all of these worlds have been worked by archaeologists for millennia. Of course, there are those who believe that the Truth has been overlooked, or even deliberately concealed.

On top of everything else, the theory leans toward the Humanocentric, which explains the interest from groups like Superioriti. The idea that Human ancestors were more than servitors would be hugely appealing to them. Predictably, a few Vargr reason that what happened to Humans may also have happened to them. That is, the Vargr are Wandjinas, too (or, perhaps, instead!), which is where the “Church of the Chosen Ones” comes in.

What about a possible hidden agenda? While seemingly of only academic interest, the Solomani Hypothesis had a tremendous long-term impact on Imperial history. Whether hoax or genuine, the Wandjina Theory could affect the self-image of Humaniti and other races. Note also that the creator, Dr. von Sandburg, formulated her theory while working for a Vilani-dominated institution. Given the history of Vilani-Solomani relations, it may not be so hard to believe that Vilani supremacists could be seeking revenge on the Solomani.



WANDJINA ADVENTURING

A number of private organizations are devoted to Wandjina studies. Membership is no more than a few dozen at best, and usually much less. In general, they exhibit the same ranges of behavior, professionalism, commitment, ideology, and methodology that one may find in comparable groups on 20th-century Earth.

Wandjina experts are second-class citizens to the rest of the scientific community. Lacking the support of more prestigious scientific endeavors, many have no choice but to prove their case by any means achievable. To that end, one can expect archaeological digs on a shoestring budget, illegal activities (particularly forgery, trespassing, theft, and smuggling), interference from rivals/skeptics/bureaucrats/benefactors, dubious fund-raising efforts, bizarre publicity stunts, and so forth. The reaction of the authorities and others will depend upon prior experience with, or knowledge of, such groups.

Wandjina devotees are a complication to any artifact/treasure hunt. Along with the standard crowd – obsessed scientist, obsessed scientist’s daughter, thick-skulled hero, sleazy expert, crazed fortune-hunter, obnoxious local, and Would-Be-Despot-Seeking-the-Ultimate-Weapon – a few of these so-called weirdos could mess up everybody’s plans.

WANDJINA CAMPAIGNING

For something different, a Wandjina campaign is a possibility. The characters begin as proto-Human/Vargr/Droyne/whatever survivors of the Final War circa 250,000 B.C., with some impressive technological artifacts and a few big ideas. Do they lay the foundations for what is to come, or are they doomed to vanish into the mists of time?

Many *GURPS* books would be useful. Books and websites on Ancient Astronauts and the Mars/Cydonia controversies could generate ideas. Reading some van Daniken books and/or viewing a few *Battlestar Galactica* episodes may provide the right mood.

FINALLY

Is the Wandjina Theory true? The GDW adventure *Secret of the Ancients* was intended to be the final word on the Ancients, so the simple answer is “no.” But *Secret of the Ancients* answers all of the questions about the Ancients – no misdirection, no alternatives, no uncertainty, no room for speculation or disagreement. After the book was published, one problem arose – there was no more mystery (see the sidebar on p. GT 81). Indiana Jones did not achieve the Ultimate Answer when he found the Ark of the Covenant or the Holy Grail. The urgent questions were resolved, but others were not. So perhaps we should leave some room for mysteries . . .

Introducing the Wandjina Theory to a standard *Traveller* campaign is simple enough. The biggest advantage is that players who know the universe back to front become less inclined to take things for granted. Even if the theory is provably utterly wrong, one cannot help but wonder. After all, only the GM knows “The Truth.” Officially, the Ancients self-destructed, then nothing happened (apart from a few projects of Grandfather’s) until the Vilani went interstellar 250,000 years later. But a quarter of a million years is a very long time for “nothing” to happen. So maybe, just maybe, somebody has been yanking Humaniti’s collective chain about the Ancients all along. Could Grandfather be a prankster, a liar, or a straight-out impostor? Could the revelations of *Secret of the Ancients* conceal something even bigger? Perhaps there is an element of truth in the Wandjina Theory. Could Wandjina influence have built Atlantis, founded the Illuminati, and/or created some of the contents of Warehouse 23? You tell me.

RECOMMENDED

Traveller Adventure 3, Twilight’s Peak (GDW, 1980).
Traveller Adventure 12, Secret of the Ancients (GDW, 1984).
Traveller Alien Module 5, Droyne (GDW, 1985).

Index

- Accessories, 89.
Accommodations, 87-88.
Adventure seeds, 28-29, 38, 54, 58, 62, 67, 72, 74, 98-100, 127.
Adventures, 4-7, 14-15.
Amber Zone, 4.
Ancients, the, 107-110, 126-127.
Armaments, 90.
Armor, 84.
Aslan, 34-35.
Background, 24-50.
Bay Weapons, 92.
Bays, 83-84.
Blakeway-class
Emergency Response Vehicle, 14.
Border Worlds, 44.
Bridge systems, 86.
Campaigns, 38, 74, 107-110, 125, 127.
Chixilub crater, 20-23.
Classic Traveller, 58, 72, 90, 111; *subsector data*, 38.
Cockpit systems, 86.
Computer System, 87.
Contragravity systems, 85; *combination*, 86.
Controls, 86.
Cortez-Class Salvage Ship, 73-75.
Crew requirements, 81-82.
Crew, 87-88.
Cygnus Corridor, 105-106.
Darrian subsector, 16.
Darrians, 16-17, 38-41.
Deck plans, *designing*, 76-79; *resources*, 79.
Defenses, 90.
Droyne, 107-110.
Dulinor, 107, 109-110.
Echiste, 8-13.
Electronic warfare systems, 87.
Electronics, 86.
Energy banks, 85.
Entertainment facilities, 88.
Entropic Worlds, 16, 40.
Fifth Frontier War, 16, 40.
Force fields, 94.
Fuel scoops, 85.
Fuel system, 84.
Fuel tanks, 85.
Gabeau, 12.
Garoo III, 19.
Garoo, 16-19.
Geyoins, 12.
Ghosts, 30-33.
Governments, 51-72; *balkanized*, 63; *bureaucratic*, 55-58; *charismatic*, 51-54; *democratic*, 59-62; *Echiste*, 10; *Mazjaru*, 47-48; *Penelope*, 21-22; *religious dictatorships*, 68-72; *Rule of Man*, 25-26; *Sacnoth Dominate*, 36; *Sword Worlds*, 36, 43.
Gram Council, 34-35.
Gram, 34-39.
Graveyard, 19.
Gravitic systems, 85; *combination*, 86.
GURPS Space, 80.
GURPS Traveller, 56, 97; *Naval architecture*, 80-96; *Sacnoth statistics*, 37; *ship statistics*, 73-74, 80-96.
GURPS Traveller: Alien Races 1, 100.
GURPS Traveller: Alien Races 2, 77-78, 100.
GURPS Traveller: Alien Races 3, 77-78, 100, 107.
GURPS Traveller: Behind the Claw, 59, 100.
GURPS Traveller: Far Trader, 73, 100, 111.
GURPS Traveller: First In, 100, 111-112.
GURPS Traveller: Rim of Fire, 100.
GURPS Traveller: Star Mercs, 100.
GURPS Traveller: Starports, 100, 111.
GURPS Warehouse 23, 58.
History, 24-50; *of the Sword Worlds*, 34-44.
Hulls, *compartmentalization*, 82-83; *design*, 82-83; *dispersed*, 83; *tables*, 82.
Imperial Army, 27.
Imperial Marines, 27.
Imperial Navy, 26-27, 124-125.
Imperium, the, 97-100.
Information center, 86.
Jump drives, 84-85; *kiloparsec*, 105.
Jump fuel, 85.
Jump Troop Systems, 87.
K'kree, 45-50.
Kiloparsecs, 101.
Languages, 67.
Law Level, 66.
Life support, 88.
Long Night, the, 25, 28.
Lucan, 107, 109-110.
Luxury fittings, 88.
Mapping, *3D*, 111-123; *galaxy*, 101-106.
Maps, *3D*, 112-116, 118-121; *Cygnus Corridor*, 106; *Echiste*, 9, 11-12; *Galactic Survey Zones*, 103; *Orion Arm*, 104-105; *Orion-Perseus Quadrant*, 102.
Margaret, 107, 109.
Masters, 107-110.
Mazjaru, 45-50; *government*, 47-48; *racial template*, 50; *weapon table*, 50.
Medical facilities, 89.
MegaTraveller, *Echiste Animal Encounter Tables*, 13; *subsector data*, 38.
Miscellaneous systems, 90.
Missiles, 95-96.
Modules, 84-90.
Mora system, 14-15.
Morceau, 11.
Naval architecture, 80-96.
Old Ones, 107-110.
Orion Arm, 104-105.
Passengers, 87-88.
Penelope, 20-23.
Planetary data, *Echiste*, 8, 12; *Gabeau*, 12; *Garoo*, 19; *Garoo III*, 19; *Geyoins*, 12; *Graveyard*, 19; *Morceau*, 11; *Penelope*, 20; *Risset*, 12; *Sacnoth*, 37; *Vidure*, 12.
Power system, 84.
Propulsion system, 84.
Racial Template, *Mazjaru*, 50.
Rayonne, 8, 12.
Religion, 68-72.
Rio, 59.
Risset, 12.
Robotic ships, 83.
Rule of Man, 24-29; *adventures*, 28-29; *corporations*, 27-28; *government*, 25-26; *timeline*, 24-25.
Sacnoth Dominate, 34-39.
Salvage procedure, 74-75.
Scout Service, 124-125.
Screen systems, 93-94.
Second Imperium, 24-29.
Security systems, 89-90.
Sensor arrays, *long-range*, 86-87.
Sensor systems, 86.
Sensors, 86.
Settings, 8-13, 16-23.
Ship statistics, 94-95.
Ship types, 80-81.
Software, 96.
Spinal weapons, 93.
Starship surface features, 84.
Stellar summary, *Rayonne*, 11.
Strephon, 107-110.
Subsector data, *Sword Worlds*, 38.
Sword Worlds Confederation Patrol Service, 44.
Sword Worlds, 16, 40-44; *history of*, 34-44; *subsector data*, 38; *timeline*, 39.
Symbol libraries, 78.
Tables, *accessories*, 89; *Armor*, 84; *Balkanization History*, 63-65; *bay weapons*, 92; *black globe*, 94; *bridge add-on*, 84; *Capital Development*, 117; *charismatic government*, 52; *Church Organization*, 69; *Church-State Relationship*, 69; *Climate Modifier*, 116; *computer system*, 87; *Conception of Deity*, 70; *Direct Democracy Institutions*, 60; *Distance Modifier*, 119; *Echiste Animal Encounter*, 13; *Echiste Hydrographic Pressure*, 13; *Echiste Law Levels*, 13; *Echiste Technology*, 13; *Effect of Transgression*, 71; *electronic warfare systems*, 87; *energy banks*, 85; *entertainment systems*, 88; *fuel scoops*, 85; *Garoo Transit Times*, 19; *Habitability Factors*, 116; *hulls*, 82; *Hydrography Modifier*, 116; *information center*, 86; *jump troop systems*, 87; *Leadership Institutions*, 59; *Leadership Types*, 56; *Level of Conflict*, 65-66; *Life After Death*, 72; *life support*, 88; *Logarithm*, 117; *Mainworld*, 115; *Mazjaru weapons*, 50; *medical facilities*, 89; *miscellaneous systems*, 90; *missiles*, 96; *MSPR*, 122; "Official" *Government*, 69; *party systems*, 61; *population conversion*, 111; *Port Modifier*, 119; *Religious Rules*, 70; *resources*, 115; *screen systems*, 93; *security systems*, 90; *sensor arrays*, 87; *sensor systems*, 86; *spinal weapons*, 93; *Starport Distribution*, 120; *Starports*, 118; *Subordinate Starports*, 66; *surface features*, 84; *Sword Worlds Confederation Patrol Service Ranks*, 44; *tech level on a balkanized world*, 66; *Trade Routes*, 120; *turret weapons*, 91-92; *turrets and bays*, 84; *Typical PR Values*, 120; *Unmodified World Trade Number*, 119; *voting participation*, 62; *voting restrictions*, 60; *World Population Rank*, 117; *World Trade Number*, 119; *workshops*, 89.
Tech level, 66.
Technology, 73-96.
Terne, 8.
Theocracies, 68-72.
Timelines, *Final War*, 110; *Rule of Man*, 24-25; *Sword Worlds*, 39.
Traveller: The New Era, 85.
Turret Weapons, 91-92.
Turrets, 83-84.
Variants, 97-127.
Vidure, 12.
Vilani, 24-29.
Vilanicorps, 28.
Wandjina theory, 126-127.
Workshops, 89.
Ziru Sirka, 24-27.