

From the computer data banks and the galactic encyclopedias of the Imperium, this supplement contains a compilation of important facts of interstellar society, culture, history and science.

Included are data entries A through M, plus essays on the Imperium, its Emperors, and more!

Supplement 8 Library Data (A-M)

TRAVELLER[®]
*Science-Fiction Adventure
in the Far Future*

Game Designers' Workshop

Supplement 8
Library Data (A-M)

TRAVELLER

*Science-Fiction Adventure
in the Far Future*

Game Designers' Workshop

Library Data (A-M) is a compilation of essays and background data entries on the universe of **Traveller**. The essay on the Imperium first appeared in *Different Worlds*, No. 9; it was also distributed to attendees at **Traveller** seminars during the summer of 1980. The Emperor's List first appeared in the *Journal of the Travellers' Aid Society*, Issue 4. The library data entry on Aslan previously appeared in the *Journal of the Travellers' Aid Society*, Issue 7. Material on other alien races was also distributed in somewhat different form at **Traveller** seminars during the summer of 1981. Some additional data entries have previously appeared as background for **Traveller** Adventures and Double Adventures.

CREDITS

Library Data was written by (in alphabetical order) Frank Chadwick, John Harshman, Marc W. Miller, and Loren K. Wiseman. Artwork by Rich Banner, William H. Keith, Jr, Marc W. Miller, Chris Purcell, and Tom Smith.

Library Data (A-M)

TRAVELLER, Supplement 8

Copyright © 1980, 1981 by Game Designers' Workshop, Inc.
All rights reserved. Printed in the United States of America.
No part of this book may be reproduced in any form or
by any means without permission in writing from the publisher.

5 6 7 8 9 10 11 12 13 14 15

This booklet is a supplement for **Traveller**, GDW's science fiction role-playing game set in the far future.

Traveller is GDW's trademark for its science fiction role-playing game materials.

Game Designers' Workshop, Inc.
P.O. Box 1646
Bloomington, IL 61701

Table Of Contents

INTRODUCTION	5
THE STARS!	6
The Imperium.	7
Interstellar Society	8
Psionics	9
CHRONOLOGY	10
LIBRARY DATA ENTRIES	11
THE SOLOMANI	36
History of the Solomani People	36
History of the Solomani Movement.	37
MEGACORPORATIONS	40
Titles	40
Capsule Descriptions	40
THE EMPERORS' LIST.	44

Introduction

This booklet is a supplement to **Traveller**. It contains a compilation of essays and entries concerning the history of the universe as dealt with in **Traveller**. Its intended purpose is the provision of background information for players and referees to use when engaged in science-fiction role-playing campaigns.

The quantity of information available dictates that this supplement contain only entries in the alphabetical range A through M. Supplement 10, Library Data (N-Z) will contain the remainder of the library data entries in the alphabetical range, as well as additional essays.

Dates: The assumed date of publication of this supplement is 1107; the 1107th year since the founding of the Third Imperium. See also Dating Systems in the body of this booklet.

SUGGESTED USAGE

This compilation of library data can serve many purposes. Some of the material duplicates that provided in **Traveller** Adventures and Double Adventures. Other material is new to this volume. All has been carefully selected to not reveal important secrets concerning adventures. This booklet may safely be provided to **Traveller** players in order to acquaint them with the basic background of the **Traveller** universe.

Referees may find that some of the information will be useful in administering adventures. It may clarify certain concepts, or provide a starting point for the creation of other similar concepts.

The true purpose of this supplement is to provide some hint of the consistency to be expected in **Traveller**, and to make a large quantity of that information available to both players and referees alike.

Essays: The essays (on the Imperium, Megacorporations, the Solomani, and the Emperors of the Imperium) provide some indication of the fabric that binds the **Traveller** universe. They provide insight into the structure of the Imperium and can be used as sources of information, names, historical events and other thoughts. They can be read by both referee and player.

Entries: The basic library data entries reveal facts about specific subjects. They can be made available to players by the referee as appropriate.

Map: The map of the Imperium and its neighbors shows the general relationships of the various interstellar communities. Each large rectangle is a sector of 16 subsectors. The map should be used as a reference by the referee and made available to the players when necessary.

The Stars!

The key to the stars is the jump drive— without it, the space between the stars takes years, even lifetimes, to cross. With it starships travel parsec distances in a matter of weeks. The development of a jump drive marks the beginning of interstellar travel for any race, including humaniti.

A jump drive is both fast and simple. With one, it is possible to move from here to there (where both places are at least one hundred planetary diameters out from any large masses) in a period of about a week. The time in transit is independent of the distance travelled, which makes this system practical for interstellar travel, but for little else. The distance travelled with the jump drive is a function of the specific jump drive in use— for varying sizes and complexities of jump drives, the performance ranges from one to six parsecs, with greater distances as yet unavailable. In point of fact, the current theory of jump drive actually precludes greater jump distances.

Another central fact of interstellar travel is that no method of information transfer faster than jump drive transmission has been discovered. Ships can carry messages, but radio still lags at mere light speed. Communication is always restricted to the speed of interstellar transportation.

For Terra, the first rudimentary jump drives came into general use in the late 21st century. These drives introduced the Terrans to Alpha Centauri, the farther stars, to the Imperium, and to the First Interstellar War, 2113 AD. That series of wars (there was, of course, more than one) hastened the fall of the Imperium, and resulted in the takeover of the existing structure by expanding Terran forces. Their rule (The Rule Of Man, or the Ramshackle Empire, depending on who wrote the history) slowed, but did not stop, the continuing decay of empire.

What followed is romantically called the Long Night. It wasn't romantic at all. The fall of the empire halted much of the trade and commerce between worlds— many of these worlds simply died, no longer able to maintain their previous standard and unable to recapture the lower technology levels necessary for survival. Some worlds banded together in pocket empires, mere shadows of the former glory that was the First Imperium. Some worlds wasted their technological jewels fighting for the scraps of the empire that were left. The fighting and the turmoil lasted nearly two hundred and fifty years— from twilight to maybe nine o'clock. Some worlds didn't even know for sure that the empire had fallen; communications ships simply stopped coming, and no one could find out why.

Night continued for another twelve hundred years. Worlds turned in on themselves, developing local resources and moving in their own directions. About three decades before dawn, a group of worlds known as the Sylean Federation established a firm industrial base and a strong interstellar government. This, coupled with a high population pressure, provided the impetus necessary for the re-establishment of the empire. In a thirty year campaign, the Sylean Federation actively recruited new member worlds for its interstellar community. Public relations programs, active commercial warfare, and (where necessary) battle fleets joined to bring all of what is now the Capital Sector under one rule. Proclaiming the Year Zero a holiday year

to mark the beginning of a new era, Cleon accepted the iridium crown of the Third Imperium, establishing it firmly on the foundations of the First and Second.

THE IMPERIUM

The Imperium is a far-flung interstellar community encompassing over 1100 worlds within a region approximately 700 parsecs across. It has now ruled its territory for eleven centuries and looks to continue for many more. Interstellar government over such a large area, however, becomes a philosophical question; the problem initially seeming to be insurmountable. Distance, travel time, and communication lag all conspire against a functioning, efficient structure which can meet the needs of its subject population. But the lessons of history serve as a guide. Spain in the 16th century ruled much of the New World, with travel times of up to a year between the seat of government and the new territories. In fact, through most of history timely governmental communication, with both a rapid dispatch of instructions and an equally rapid response, has been a dream, not a reality.

The Imperium has come upon two solutions which together ameliorate the problems of distance: the xboat network and feudalism.

The Xboat Network: Like the body, with its network of veins and arteries, the Imperium is permeated by a network of xboat routes, or links, devoted entirely to the carriage of messages for official, commercial, and private purposes.

The express boat (xboat) is a small, fast ship filled with a pilot compartment, message data banks, and jump drives. The fit is so tight that the tiny ships don't even have maneuver drives. Each is capable of jump-4 (four parsecs in a week); it jumps, relays its messages to the station on arrival, and then waits to be picked up by a tender, refuelled, and sent on its way to the next station on the route. The local station on a world accepts messages, encodes them, and transmits them to a station at the edge of the stellar system. The network works like the pony express—with messages always moving at top speed. Transfer time for the messages from one xboat to another can be as short as ten minutes, and is rarely more than an hour.

Ultimately, the little xboats make their way to one of the many Imperial Way Stations scattered throughout the Imperium's subsectors. There they are refitted, overhauled, and refurbished, only to be sent on their way again.

The xboat network makes the edge of the Imperium about 44 weeks out from the core and capital; that represents a savings of better than 50% of normal travel time. And still the Imperium is straining under the effects of distance.

Feudalism: With such great distances separating stellar systems, individual responsibility and authority become of great importance. The Imperium is divided into sectors (twenty of them), each about 32 parsecs by 40 parsecs in size. Each sector is divided into sixteen subsectors (8 by 10 parsecs). And within a sector are perhaps thirty or forty systems, each with a star, worlds, and satellites.

Individual worlds, and even entire systems, are free to govern themselves as they desire, provided that ultimate power is always accorded the Imperium. Interstellar government begins at the subsector level— on one world designated the subsector capital. The ruling figure at the subsector capital is a high-ranking noble selected by higher levels of government. This duke has a free hand in government, and is subject only to broad guidelines from his superiors. But at the same time, the duke owes fealty to the higher levels of government, ultimately to the Emperor himself. The feudal approach depends greatly on a sense of honor, one cultivated by the

hereditary aristocracy. This sense of honor is very strong within the Imperium; it has proven essential to the survival of such a far-flung community.

INTERSTELLAR SOCIETY

The known interstellar community encompasses thousands of worlds, many of them inhabited, and not all by humaniti. The number of intelligent life-forms which have been contacted is quite high; within the Imperium itself, over one hundred intelligent species have been identified. When regions beyond the Imperial boundaries are included, the total number rises to well over four hundred.

Major and Minor Races: A superficial classification system for the various intelligent races has been created, based on empirical evidence, and to some extent on tradition. In general, the dominant races of known space are those which have achieved FTL (faster than light) travel by themselves, rather than receiving it through contact with starfaring civilizations. These dominant races are called major races; all others are called minor races. Thus, the term major race has become attached to any race which achieves FTL flight on its own, regardless of its prominence. There are sound reasons for the mixing of these two concepts: races which developed FTL rapidly expanded into space, spreading their influence across the stars. Slower races were contacted before they had a chance to discover the FTL secret and emerged into a universe already controlled by the major races. Indeed, the culture shock of being found by a superior race (often superior only in their knowledge of FTL) may take something out of the race as a whole, making them incapable of denying their secondary role in interstellar society. The classification scheme is, of course, simplistic, but the major races tend to perpetuate it as it works to their advantage.

The Six Races: Similar to the major/minor race division is the concept of the Six Races. The origin of the term is uncertain, but it appears independently in Aslan, Vargr, and Centaur sources. There is some disagreement as to the proper identification of the Six, but most commentators agree that all must be major races. The most common definition was once Aslan, Centaurs, Hive, Vargr, Zhodani, and Imperials (both Solomani and Vilani). The confirmation (in 790, Imperial date) of multiple worlds inhabited by the Droyne, and of archeological evidence that they possessed FTL travel before the entry of any of the modern dominant races into space gave new weight to the Six Race concept. With the inclusion of the Droyne, Humaniti could be neatly categorized as one race, clearing the way for a classification that included six truly distinct races: Aslan, Centaurs, Droyne, Hive, Humans, and Vargr.

Aslan are roughly human-sized and are descended from four-limbed, upright, bipedal carnivore/pouncer stock. The earliest Terran explorers saw in them a vague resemblance to the Terran lion, and they have been described (by Terrans) as lion-like ever since, although there is very little true similarity.

Centaurs (they call themselves the K'kree) are among the most massive of the major races, and are the only examples of the major races descended from herbivores. Centaurs are conservative, gregarious with their own kind (to the point of distress if isolated) and claustrophobic. These characteristics derive from their evolutionary origins as herd animals.

Droyne are a small race, both in stature and in dominion, with only limited settlements on a small number of worlds. The history of their evolution is a puzzle

as their home world is not known with certainty. The Droyne have no empires, and actually rule only a few worlds. In some few cases, they possess the technology to produce sophisticated machinery, including jump drives and starships, but they remain apparently content to stay on their own worlds.

Humaniti (old spelling: humanity) is a special case. Originally evolved on Terra, humans were disseminated over nearly fifty worlds about 300,000 years ago by the Ancients, a now extinct intelligent race. These various examples of humaniti then independently developed. Unlike non-human races, individual human races are classified as major or minor. Three human races (the Solomani of Terra, the Vilani of the First Imperium, and the Zhodani far to spinward) are major races. The nearly forty other races of humaniti are all minor,

Vargr are an intelligent race genetically manipulated from carnivore/chaser stock by the same Ancients who disseminated humaniti to the stars. Vargr have long suffered from an inability to organize themselves (to any degree or for any length of time) beyond the star system level, and their empires tend to rise and fall with unsurprising regularity. Vargr have an intense racial pride, and are easily insulted. They are prone to enter into fights without regard for possible consequences.

Hivers (a human term applied to them) are the most obviously alien of the major races: They are descended from omnivore gatherer/scavenger stock, and are unique in that they attained a form of agriculture before they became sentient. They exhibit a sixfold radial symmetry. The body has an internal skeleton consisting of a series of rings supporting the limbs, while a fused carapace protects the brain and internal organs. Hivers themselves are highly individualistic (the term hive is an early misconception) while driven by basic drives such as curiosity, the parental instinct, and a desire to maintain the unity and uniformity of their race.

Within The Imperium: The many worlds of the Imperium shelter hundreds of races, including many of the major races. Aslan, Vargr, and Humans can be expected in many areas under Imperial rule. Zhodani, Centaurs, and Hivers, for various reasons, are much more infrequently encountered, and for the most part remain within their own regions.

PSIONICS

The concept of psionics is a strong point in the fabric of the Imperium. Until about 800, psionics were only weakly defined. Their achievement and distribution was only scattered. Humaniti has a strong potential for psionics, but its achievement requires both training and discipline. Other races have varying psionics potentials, with only limited interchangeability between races, but psionics has never reached the great level of social importance as for humaniti.

Zhodani cultures have consistently trained their nobles (only) in the use of psionics. In the Imperium, such training was originally a hobby or an avocation, but rarely of any value in the real world. In the period 600 to 800, the Psionics Institute began a campaign for more interest. Poorly timed, it coincided with PR backlash against the Zhodani (already the perpetrators of several wars against the Imperium). The result was a genuine revulsion on the part of most of the Imperial population— against psionics. This dislike is expressed differently on differently on different worlds, and has tended, in the past three centuries, to keep psionics on a clandestine, hobby-oriented, and slightly prurient, level.

Chronology

This chronology covers the basic historical events of the Imperium and its predecessors, showing the date of the event in the three major date system extant. In situations where the event spanned more than one year, that span is shown in Imperial years, with the starting date also given in Vilani and Terran systems. Imperial and Terran years have 365 days. Vilani years are approximately 1.33 standard years in length.

Imperial	Vilani	Terran	Event
approximately 300,000	pre-Imperium		Ancients thrive.
-5272	922 PI	752 BC	Vilani ascendance.
-4520	357 PI	1 AD	Terran dating system begins.
-4045	1 VI	476 AD	First Imperium established.
-2408	1230 VI	2113AD	First Interstellar War begins.
-2219	1372 VI	2302 AD	Nth Interstellar War ends.
-2204	1383 VI	2317 AD	Establishment of the Rule of Man.
-1776	1705 VI	2745 AD	Collapse of the Rule of Man. Twilight.
-1526	1892 VI	2995 AD	9PM
-1120	2197 VI	3401 AD	First Aslan Border War begins.
- 399	2739 VI	4122AD	Sword World colonization begins.
- 186	2899 VI	4335 AD	First Sword World Confederation.
- 30	3016 VI	4491 AD	Cleon's Campaign begins.
0	3039 VI	4521 AD	Third Imperium established.
76 to 120	3096 VI	4597 AD	Pacification Campaigns.
114	3124 VI	4635 AD	Solomani Hypothesis proposed.
210 to 348	3196 VI	4731AD	Vargr Campaigns in the Corridor.
380	3324 VI	4901 AD	Imperial-Aslan Border established.
420	3354 VI	4941 AD	First Survey of the Imperium completed.
475	3395 VI	4996 AD	Seeds of unrest; Nicholle assassinated.
588	3480 VI	5109AD	Incorporation of Sol into Imperium.
589 to 604	3481 VI	5110AD	First Frontier War.
604 to 622	3492 VI	5125AD	Civil War.
615 to 620	3500 VI	5136 AD	Second Frontier War.
624	3507 VI	5145 AD	Xboat system established.
679	3548 VI	5200 AD	Solomani power broken at court.
704	3567 VI	5225 AD	Solomani Autonomous Region created.
718	3578 VI	5239 AD	Xboat system covers entire Imperium.
800 to 826	3639 VI	5321AD	Psionics Suppressions.
950	3752 VI	5471AD	Solomani reintegrated into Imperium.
979 to 986	3774 VI	5500 AD	Third Frontier War.
990 to 1002	3782 VI	5511 AD	Solomani Rim War.
1065	3838 VI	5586 AD	Second Survey of the Imperium completed.
1082 to 1084	3851 VI	5603 AD	False War (Fourth Frontier War).
1107	3870 VI	5628 AD	Beginning of Fifth Frontier War.

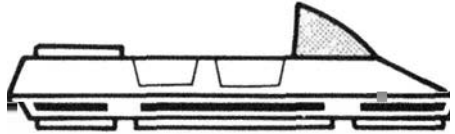
Library Data Entries

Library data entries are compilations of information commonly obtainable from ship's computers in response to the correct keywords. The information may prove useful in providing a greater understanding of the workings of the universe, or in providing direction in quests or searches. In any case, the information in library data can be of great help to any travellers looking for guidance.

Air/Raft: Also known as a flier, the air/raft relies on solid state anti-grav modules for lift and propulsion. Four independent, individually replaceable modules ensure a maximum of safety, in that each provides one-quarter of the vehicle's total lift. A standard air/raft masses about four tons and can carry a payload of about four tons, including the driver and three passengers. An air/raft can be overloaded with passengers (a maximum of eight can fit with minimal comfort) provided total tonnage capacity for the vehicle is not exceeded. Cruising speed is usually 100 kph and extremely subject to wind effects. The vehicle is open-topped, and subject to the effects of weather and climate. Range in time or distance is effectively unlimited; refuelling (recharging) can be accomplished from a starship power plant in a few hours every ten weeks or so.

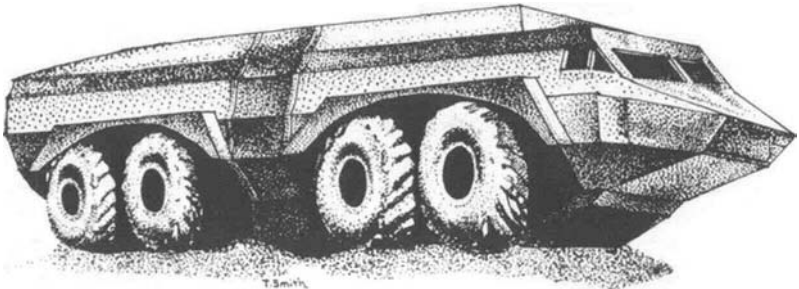
An air/raft can reach orbit (occupants should wear vacc suits) in several hours (number of hours equals planetary size digit in the UPP). Travel beyond orbit (inter-planetary) is not possible.

The major drawbacks to the air/raft are its low load capacity, its relatively slow speed, and its susceptibility to weather (both the negative effects of bad weather on the passengers, and the slowing effects of winds and buffeting).



Air/Raft

All Terrain Vehicle: Also known as the ATV, the All Terrain Vehicle is designed to provide high quality transportation on any number of worlds. It can traverse all but the most forbidding terrain and is fully amphibious. The vehicle's pressurized interior allows up to eight passengers living quarters with reasonable comfort



Wheeled All Terrain Vehicle

for long periods of time. The ATV masses 10 tons, and can carry a payload of six tons, including the driver and seven passengers. Cruising speed depends on the terrain being traveled: roads can allow up to 100 kph, while cross-country will rarely exceed 60 kph, and broken ground will keep speeds to 20 kph and under. Tracked ATVs are somewhat slower than wheeled versions, but are more reliable in difficult terrain.

An ATV may be powered by a battery charged from a ship's power plant, or it may contain a small fusion pack requiring water or hydrogen for fuel.

The major drawbacks of ATVs are refuelling requirements (depending on the specific model), slowness in some types of terrain, and the bulk of the vehicle itself.

Amber Zone: Travellers' Aid Society classification for a nation, world, or system which presents a need for caution in dealings and activity. The amber code may indicate chaos, upheaval, or xenophobia in local business, politics, society, or culture, or may be applied for other reasons. Travellers should exercise caution. See also Red Zone, Travel Zone.

Ancients: The name given to a race of intelligent, non-human beings who inhabited various locations in this portion of the galaxy approximately -300,000. Archeological evidence recovered from excavations of the few known Ancient cities indicates that the race destroyed itself during a 2,000 year period of intense warfare which left only ruined cities and shattered planets.

The Ancients were responsible for several major features within the region now occupied by the Imperium. Their warfare resulted in the large proportion of asteroid belts throughout this spiral arm. There is evidence that they created the multi-world rosette at Tireen (in the Vargr Extents). Scattered empty cities (most severely damaged by battle) stand as evidence of their wars; most, however, are restricted areas under investigation by the Imperium and not open to the public.

The Ancients are generally accepted as responsible for the dissemination of Humaniti within its current domain when they transplanted genetic stock from Terra to at least forty worlds across a span of some 360 parsecs. See also Humaniti, Solomani Hypothesis.

The Ancients were also responsible for the creation of the Vargr through genetic manipulation of carnivore/chaser stock. Apparently, they used Terran canine stock acquired at the same time as humaniti. See also Vargr.

Andory (Five Sisters subsector 0206-C695735-9 Agricultural). Prime candidate for Droyne homeworld. Discovered in 802 and placed under interdict (red travel zone) by Imperial Interstellar Scout Service. See also Droyne.

Antebellum: Literally, before the war. General historical term referring to the period within the Imperium before the Civil War. specifically 210 to 604.

The antebellum period was characterized by expansion of the Imperium, with large-scale colonization efforts, integration of numerous regions into Imperial society, and an overall mood of growth and exploration. With the end of the antebellum period, the Imperium turned more attention inward, devoting resources to internal development and consolidation.

Artifact: Any manufactured object.

The term artifact is commonly used to refer to any object, item, or group of related items produced by the Ancients.

Aslan: The Aslan are a race of intelligent beings with an established interstellar empire spinward and rimward of the Imperium; in addition, large numbers have settled within the Imperium. Aslan stand roughly human-sized, averaging 2.0 meters in height and weighing about 100 kg. They are descended from four-limbed, upright, bipedal carnivore/pouncer stock, originally adapted to a solitary arboreal existence. The earliest Terran explorers saw in them a vague resemblance to the Terran lion, and they have been described (by Terrans) as lion-like ever since, although there is very little true similarity. The derivation of the word Aslan is unknown. There are two sexes, male and female. The most notable external difference is the increased size and mane of the former. Females outnumber males by 3:1.

Aslan have a single highly specialized claw under each thumb which folds back jackknife fashion into a horny covering in the base of the thumb and palm.

A vast Aslan-dominated empire (the Aslan Hierate) lies far to rimward; but Aslan themselves have ranged far beyond its borders, with many settling within the Imperium and attaining full status as citizens. As citizens, they subordinate themselves to Imperial authority, although they have remained culturally apart from human society. Aslan serve in the Imperial armed forces; they achieve noble positions; they pay taxes; they run businesses.

Aslan Society: The Aslan are a warrior race, proud and noble, devoted to those in authority above them. An individual Aslan is usually a member of a family of from 2 to 12 individuals under a patriarchal leader. Several families will combine into a pride with one family dominant. A number of prides form a clan again with a top pride. Aside from military organizations and the ruling council (within the Hierate), the clan is the highest social-political organization among the Aslan.

A deep-seated territorial instinct causes the Aslan to have an inordinate (from a human standpoint) concern with land. For male Aslan, owning land is a major goal in life. An Aslan's stature is determined by the amount of land he (or her husband) controls, and the amount any higher lord he may be vassal to controls. The lowest classes of Aslan are landless, and provide the farmers, laborers, craftsmen, and



Aslan Noble

factory workers. A holder of a large territory will often grant authority over it to vassals (usually sons, brothers, or male relatives by marriage) who administer the land in his name.

The sexes have very different roles in Aslan society. Males (in all but the lowest classes) are concerned mostly with military operations, acquisition of territory, and political affairs. Females are concerned with trade, industry, and the accumulation of knowledge. Upper class males have little conception of money and are literally incapable of functioning in a technological society without aid, and are thus seldom encountered without the supervision of a wife, mother, or other female relative or employer. For instance, a typical Aslan mercenary unit will be organized by a wealthy married female, who will then assign its operation, for a share of the proceeds, to an unmarried female relative. The battle commander and most of the troops will be unmarried males (many of them also relatives), hired with the promise of land grants (and the opportunity to gain honor and reputation in combat); however, staff, operations, supply, and intelligence officers will generally be female.

The extremely deadly nature of any combat between Aslan has led to a rigid, ritualized pattern of behavior designed to reduce conflict. Aslan are very polite and most have learned to be patient with non-Aslan, accidental fights still occur. Disputes between individuals are handled by the patriarchs, disputes between families by the pride leader, between prides by the clan leader. See also Aslan Border Wars, Aslan Hierate, Kuzu.

Aslan Border Wars (-1120 to 380): Series of conflicts between various Aslan clans and human systems as the Aslan expanded toward already settled human territory. The Aslan achieved major race status late (circa -1900) and proceeded to expand into the available territory in their region of space. Contacts along their trailing border necessarily resulted in friction with the human systems in that region. Because the Long Night was already well under way by the time the Aslan encountered humans, there was no central human government to resist Aslan attacks. Since there was no united Aslan authority either, the sides were fairly matched, and numerous small wars were fought between Aslan clans and human splinter states, with alliances among the various powers constantly forming and dissolving. The border between human and Aslan space remained relatively constant, with a few systems changing hands after each war. At this time some clans also launched raids into the interior of the former Imperial domains, conquering and settling worlds as much as 40 parsecs beyond the border.

Once the Third Imperium expanded into the region (circa 200), its superior organization and technology gradually put an end to the Aslan threat. The final treaties, negotiated with all the major clans, established a buffer zone about thirty parsecs wide between the Imperial border and the region of Aslan control. There has been no war since then (380), although the Solomani have violated portions of the zone and incorporated it into their boundaries. See also Aslan, Aslan Hierate.

Aslan Hierate: Interstellar, multi-sector government of the many Aslan clans. Aslan society centers on the clan. Within the Hierate, the family structure of the Aslan and the governmental structure are the same. The highest governmental functions are performed by a council of twenty-nine clan leaders chosen from amongst the most powerful clans. "The 29" (as they are called) have quasi-religious

status and represent the essential unity of the Aslan race. To be chosen one of "The 29" is the highest honor to which any Aslan can aspire. The 29 meet continuously on Kuzu to adjudicate inter-clan disputes and decide matters of group policy. No member of the 29 speaks for the Hierate as a whole, nor does the whole 29.

There are no Hierate military forces; each clan its own, and they rarely act in concert with those of other clans. The Hierate itself can call upon military forces only insofar as the clans themselves agree to provide such forces. Even the minor forces conveying the 29's decisions are actually under the control of individual clan leaders. See also Aslan, Aslan Border Wars, Kuzu.

Astrography: The science of mapping interstellar space. Basic to any science of mapping is a coordinate system. The system used by the Imperium is based on rings of longitude, rays of latitude, and parsecs. Rays of latitude extend from the galactic core, while concentric rings of longitude are placed at one parsec intervals. By convention, the concentric ring passing through Reference/Capital is labelled the 10,000th ring, and is used as a baseline. Similarly, the ray of latitude extending from the center of the Galaxy through Reference/Capital is designated as the first ray. Measurement is in parsecs, counting in the trailing direction. Computation reveals that the circumference of the 10,000th ring ($r=10,000$) is 62,832 parsecs. Counting spinward uses a subtraction from 62,833, which is the equivalent of the zero baseline.

For example, Regina, of the Regina Subsector, in the Spinward Marches, is 9930 ring/ray 62723. The format for expression of location is xxxx ring/ray yyyyy, where xxxx is the ring of longitude (distance from the galactic core in parsecs), and VVyyy is the distance of the ray of latitude (in parsecs) from the first ray of latitude, measured along the ring of longitude in the trailing direction.

This mapping system is highly Imperio-centric, and other systems are used by other peoples and races outside the Imperium. This system has gained wide acceptance, however, among Imperium dominated client-states, human and otherwise. This mapping system breaks down and is prone to error beyond certain limits. It does serve admirably for a band approximately 400 parsecs wide at a longitude of 10,000 parsecs.

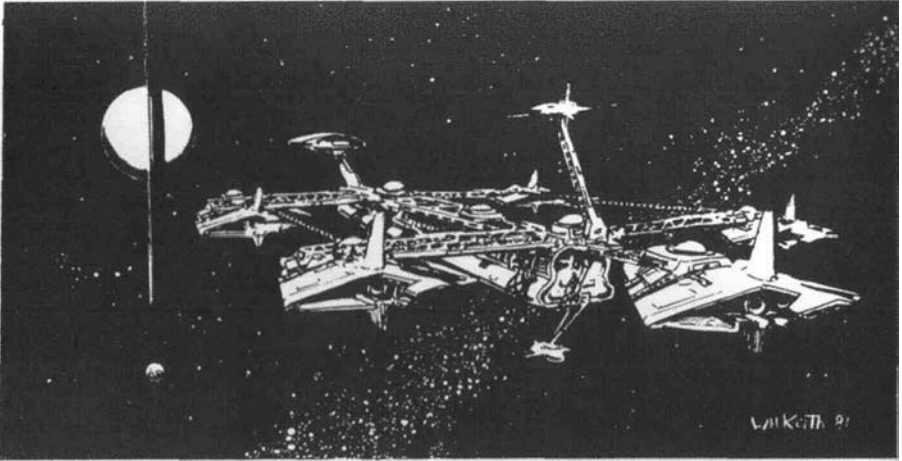
ATV: See All Terrain Vehicle.

Barracks Emperors. See Emperors of the Flag.

Battle Rider: Non-jump capable ship intended to stand in the line of battle in space combat and carried interstellar by a battle tender.

Two opposite views in naval architecture have dominated the design of the major battleships of space navies. The battle rider concept involves a large jump-capable tender carrying many (two to ten) heavily armed and armored battle riders. The opposite concept is the battleship, a large jump-capable ship which carries the jump drives and fuel tanks internally.

The battle tender, so integral to the concept of the battle rider, is little more than a large dispersed structure with jump drives, fuel tanks, and basic controls. By dispensing with the need for jump drives and jump fuel tanks on each of the riders, each becomes ton for ton more heavily armed and armored. It is generally held

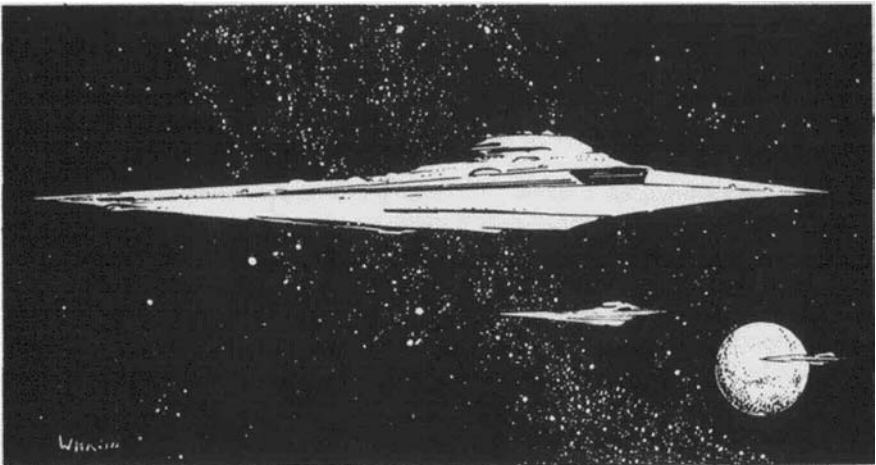


300,000 ton World Class Battle Tender with squadron of five Battle Riders.

that, in any meeting between a battleship and a battle rider of equal tonnage, the battle rider will triumph. See also Battleship, Battle Tender.

Battleship: Jump-capable starship intended to stand in the line of battle in space combat.

Two opposite view in naval architecture have dominated the design of the major battleships of space navies. The battleship concept involves large, well-armed and well-armored starships of massive tonnage and capable of meeting almost any adversary. In a battle against a superior force, however, the battleship can flee using its own jump drives. The opposite concept (of the battle rider carried into combat by a battle tender) does not allow for the possibility of superior force; no matter how good a rider is, if it meets a superior adversary, it is placed in a position of winning or dying. Retreat is nearly impossible without losses. See Battle Rider.



100,000 ton Sylea Class Battleship.

Battle Tender: Interstellar ship transport intended to carry battle riders into combat. Generally a dispersed structure, it transports a squadron of battle riders ready for immediate launch upon entry into a system. While the riders press the attack, the tender stays in the reserve for protection. See also Battle Rider.

Boat: Any defensive non-starship.

In general, the term boat is reserved for craft produced for local defensive operations. While non-interstellar in nature, they are heavily armed and armored. See System Defense Boat.

Also, any small craft used interplanetary.

Capital (Capital/Core 0508-A586A98-F): Central world of the Imperium and seat of government since its founding. Situated in the center of the Imperium, Capital's astrographical position has proven of prime importance, as a communications hub, a cultural center, and an industrial focus.

Centaur: The Centaurs (they call themselves K'kree) are among the most massive of the major races, and are the only examples of the major races to be descended from herbivores. An adult Centaur stands about 1.5 meters at the shoulder and between 2.0 and 2.4 meters tall when standing erect. Weight averages 550 kilograms. They are bilaterally symmetrical, hexapedal, and homeothermic. They bear some resemblance to the centaurs of ancient Terran myth, a trait noted by the earliest explorers.

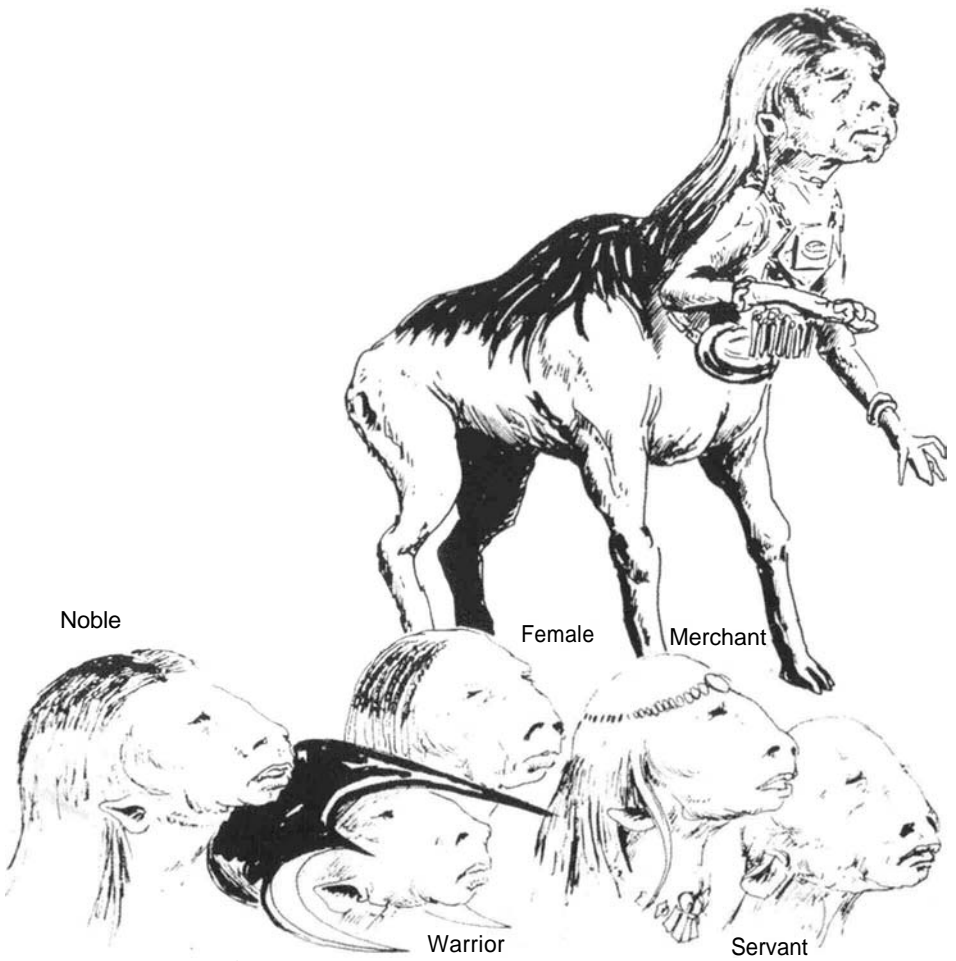
The arrangement of the manipulative organ (or hand) on the front limb is one of their most interesting features. A complex cartilaginous tubes permit the fingers of the Centaur hand to telescope up out of the way when the hand is used as a weapon. Fully extended, the fingers are mutually opposable to each other and to the "thumb" which is in reality an extension of the ulna. The Centaur hand is very flexible but somewhat weaker in grasping power than the human hand.

The Centaurs are covered with a short gray or black fur, with a dense black mane covering the head and neck and upper back of both sexes. Unlike Terran mammals, the young are fed partially digested regurgitated food instead of milk. Males average 15% to 20% larger than females.

Centaurs are extremely conservative in all aspects of their culture. Ceremonial military units (such as bodyguards) are armed with equipment which K'kree military technology outdated centuries ago, and (aside from modifications made necessary by the discovery of spaceflight) K'kree government has not changed significantly in centuries.

Because of their origins as plains dwelling herd animals, the Centaurs are claustrophobes; they cannot stand to be enclosed. Centaur cities are clumps of low, broad, transparent domes, the buildings inside never more than one story in height and open to the sky. Internal building divisions are achieved with curtains or tapestries.

Centaurs are extremely gregarious. They are never found alone, and will quickly sicken and die if removed from other K'kree for any length of time. Receiving a trade or diplomatic delegation from the centaurs means entertaining the entire family (one or more wives, servants, scribes, assistants, etc) of the merchant or the ambassador. The K'kree word for "my" refers to a possession of an individuals



herd, not to that of an individual. Privacy and individuality are exotic and little understood concepts for the K'Kree.

Centaur society is divided into castes. The system is a remnant of ancient times which no longer fit Centaur culture perfectly, but the K'kree stick with it because it is traditional. There are hundreds of castes, but the distinctions are too faint for non-K'kree to understand. For simplicity, castes can be divided into three general groupings: noble, merchant, and servant. It is possible for a family to rise in caste, but this is a rare occurrence.

The lowest caste, the servants, has come to include farmers, factory workers, and unskilled laborers as well as servants for all classes.

The next higher caste, the merchants, includes most skilled workers, scientists, engineers and technicians, scribes, and government administrators as well as merchants and businessmen.

Nobles are the governmental officials (the Krurruna and others), the high military officers, diplomats, and heads of trade and manufacturing concerns. Nobles are usually garbed in much more ornate fashion than the lower castes.

Every male K'kree must serve a term in the military upon coming of age. Warriors

are drawn from all castes, rank in the military being determined by the caste of origin (nobles enter the service as general officer trainees, merchants as lower officers and noncommissioned officers, etc.). Upon completing the required term of service, a warrior returns to his original caste and position. Warriors are the only Centaurs permitted to bear weapons, and are further distinguished by their peculiar flared and horned helmets. They serve as soldiers, police, fire-fighters, and body guards for diplomatic and mercantile expeditions.

Female K'kree are casteless, taking on the caste of their father or husband. Females have no position in government or society other than the rearing of young.

Government: The basis of Centaur government is rooted in the traditional herd system. The basic unit of government is the herd consisting of thousands of individuals of all sexes, castes and ages) led by krurruna (literally: bosses) under a single steppelord. In recent times, most herds have been assigned specific geographic areas (several may be assigned to a city, or a single herd may be assigned millions of hectares of farmland). A number of herds are governed by a single "lord of steppelords" (usually the ruler of a planet) and the Centaur race as a whole is ruled by a "Steppelord of the 2000 Worlds".

See also Kirur, Two Thousand Worlds.

Children of the March: A fleet intruder (later frontier cruiser) of the *Azhanti High Lightning* class. Tail number 6355. Laid down 095-994. First flight 117-997. 60,000 tons and heavily armed.

The *Children of the March* was unusual in this class of ships primarily for its method of financing. The boost to subsector economy created by the award of starship construction contracts is always important enough to make all areas of the Imperium vie for the privilege. At the time of the bidding invitations, the Solomani Rim War (990 to 1002) was burning on the other side of the Imperium; there was little chance that the Spinward Marches would receive a contract.

The Duke of Regina, speaking for the Marches, proposed that the Marches fund one additional ship from its own resources, on the condition that the Marches receive a contract to produce a portion of the total run. The school children of the worlds within the Marches contributed their lunch money, at a quarter credit each, for the ultimate funding of one ship, and it was named *Children of the March* in their honor.

At least, that's the story available to the casual reader. But that sort of activity is very cost-ineffective, and has a great potential for graft, or at least inattention. Instead, the sector government came up with the idea, and implemented it at the highest levels. Given a population of 783 billion in the Marches (under direct Imperial rule), children in school amount to about 10% of that population. Assuming a contribution of a quarter credit per student, the campaign could produce the sum of 19.575 billion credits.

The bureaucracy simply deducted this sum from funds budgeted to education; the responsibility for replenishment fell upon educational administrators, who could solicit donations from students (or others) for the shipbuilding campaign. Aside from the initial notification from sector government, no further effort was necessary, no further credit transfers were needed, and the campaign was allowed to go on for however long was necessary. Reportedly, some backwater school districts still collect for the "Starship Fund."

Chirper: Semi-intelligent minor race native to Vanejen (0709 C686854-5 Rich) in Rhylanor subsector in the Spinward Marches. Previously with a wide range, they have been systematically reduced to a few scattered groups in marginal territories.

Chirpers are omnivore/gatherers in the 25 kilogram class. Living in small groups with limited social organization, they follow age-old patterns of gathering fruits and berries in the wild. Chirpers are intelligent to a point, and have been known to speak. Their intelligence is more of a rudimentary cunning, devoted to stealing shiny objects or intriguing gadgets. Since this is usually sets of keys, or shiny coins, or other small valuable items, humans on Vanejen have never reacted well to the chirpers.

Finally, chirpers are extremely swift, much more so than their size or built would indicate. They can dash and dart about unseen, if they care to. It is nearly impossible to catch a chirper.



Civil War (604 to 622). Fought between various factions within the Imperium for control of the bureaucracy. It had its origin in the strain on communications within the Imperium caused by the long lag times dictated by the very size of the Imperium. To cite one cause, however, would be simplistic. The diverse backgrounds of the many constituents of the Imperium had its effects, as did rivalry for power by major naval and military commanders, and a lessening in the Imperium's expansionist tendencies.

The spark which started the Civil War was thrown off by the First Frontier War (589 to 604) in the Spinward Marches. Communications lags and a lack of preparedness forced the Marches to conduct most of the war on its own, with little additional help or support from the Imperium. Grand Admiral of the Marches Olav halt-Plankwell forced the war to an end, he found solid support for a new government. Marching on the Capital with his war fleet, he forced an audience with Empress Jacqueline I, supposedly for recognition of his war effort. In the course of the meeting in 606, he personally murdered the Empress, then proclaiming himself Emperor by right of fleet control. The ensuing power struggle lasted through eighteen years and eighteen emperors.

The fighting in the Civil War was of two varieties: fringe battles for power bases, and central battles for power in the Core. The fringe battles were fought throughout the Imperium as rival factions recruited forces. Once any power block built up enough strength to make a victory seem possible, the forces were moved to the Core and used to either seize power or to wrest it away from someone else.

But there was also a cheaper, easier route open to many. The dynastic crisis

of 244 had produced a precedent for the assassination of the emperor if he or she overstepped the bounds of legitimate activity. The concept was introduced to legitimize the elimination of Cleon the Mad and never intended for any other purpose. Nevertheless, in the turmoil of the Civil War, assassination was introduced and accepted, at least by those utilizing the technique, as a way of promoting a succession in government.

The line of Emperors during the Civil War came mostly from naval officers, and they are collectively called the Emperors of the Flag. Of these eighteen, seven were assassinated, ten were killed in battle, and one survived—Arbellatra.

During the course of the Civil War, the Outworld Coalition (of Zhodani and Vargr) saw that their defeat in the First Frontier War at the hands of Olav need not be permanent. They attacked again in the Second Frontier War (615 to 620). Their defeat in that war had greater effects than they would know. Grand Admiral Arbellatra managed the meager forces of the Imperium against the Coalition and managed to force a second defeat.

Arbellatra's strategy after the war was (like Olav) to march on the Capital and seize power. She, however, did not make the mistake of seizing the throne. Instead, she defeated the putative emperor and then took possession of power, holding it in trust for a rightful successor. She held the post of regent for seven years while a search for a member of the Jaqueline's family could be found to take the throne. In the stability that followed with her as regent, she made an impression on the government and succeeded in establishing a broad power base. Ultimately, the bureaucracy approached her to take the throne herself, an end which was probably in her mind all along.

With the end of the two Frontier Wars and the Civil War, the Imperium entered a period of renewed expansions and consolidation. An express boat system was established to enhance government, commercial, and private communications; the Solomani influence in the Imperium was lessened and replaced with a more cosmopolitan policy; renewed efforts at interior development of existing Imperial territories provided a new focus for the bureaucracy. See also Emperors' List, First Frontier War, Outworld Coalition, Second Frontier War.

Client State. An independent political unit which has elected (or had forced upon it) the patronage of a larger political unit. This relationship is generally mutually beneficial, and is essentially commercial in nature. That is, the political or defensive ties which may be part of any patron-client relationship are ultimately intended to promote trade between the two.

Confederation. Group of independent states, worlds or systems united for specified purposes, while generally retaining more freedom of action than the members of a federation. League. Alliance (especially of princes, nations, states, worlds, or systems).

Crisis of '99. Albert Croale, in his book *Almost Disaster*, presents a hypothesis that the Third Frontier War (979 to 986) occurred two centuries late. After reviewing the progress of events in the spinward reaches of the Imperium from the antebellum period to the late seventh century, Croale then analyzes the rise of the Psionics Institutes, their growing public acceptance, and their spreading power.

Finally, he presents that a straight projection of events would predict a resurgence of the Outworld Coalition, increased hostilities, and finally, a Third Frontier War.

Instead, his hypothesis as stated in his book indicates that the Psionics Suppressions (800 to 826 and beyond) were a massive manipulation of the population of the Imperium, a form of psychohistory, in order to eliminate the power of the Institutes. Preparations were ongoing for war, and the Imperium made representations of strength (in 799) to the Coalition. It backed down.

But, the psychohistory project went wrong, and resulted in widespread rejection of psionics as a whole within the Imperium, to the point that even the government had difficulty in using the science of psionics for its official purposes.

Cruiser. Ship capable of independent operations and of support of the main line of battle. Cruisers are intended to fulfil two diverse missions— in battle, they support and reinforce capital ships which are present and which form the main line of battle, generally from the flanks, and they perform independent operations, often forming the center of task forces which have no capital ships. Cruisers are also put to use as independent ships.

Directions, Galactic. North and South do not work when referring to directions within the galaxy. Instead, the following conventions have achieved widespread acceptance when referring to direction.

Toward the galactic core is coreward, away from it, in the direction of the rim is rimward. In the direction in which the galaxy is rotating is spinward, while the other direction is trailing.

These directions are in widespread use in describing Imperial features and businesses. For example, the Spinward Marches is a sector at the extreme spinward fringe of the Imperium; Rimward Lines is an important interstellar transport company.

Finally, within the Imperium, the term coreward is also used to indicate the direction of Capital, the Imperial core. There is some potential for confusion if the term is accepted out of context.

Dating Systems. Three major dating systems are in use when referring to historical events— Terran, Vilani, and Imperial. A fourth system (Zhodani olympiads) is of passing interest.

Terran dates center on a year about midway through the period of Vilani ascendance. After that date, years ascend, and are suffixed AD; before that date, years descend, and are suffixed BC. There is no year zero. Terran years have 365 days and are considered a standard for length of year. Years are further subdivided into months and weeks, although these divisions have fallen into disuse outside the Solomani Sphere.

Vilani Dates count from the year of the Establishment of the First (or Vilani) Imperium. Those before are suffixed PI (pre-Imperium), those after are suffixed VI (Vilani Imperium). There is no year zero. Vilani years are approximately 1.33 standard years in length. Vilani years are further divided into seasons, months, and weeks.

Imperial dates count from the year of the founding of the Third Imperium, specifying the year zero as a holiday year. Dates before that are negative, dates after

that are positive, with the sign usually suppressed. Imperial dating uses a Julian system for specifying days. Each day in the year is consecutively numbered beginning with 001. Thus, in the year 1105, the first day of the year is 001-1105. Weeks of seven days and months of 28 days are used to refer to lengths of time, but rarely to establish dates.

Zhodani dating is counted in olympiads (obviously a translation). Each olympiad is of three Zhodani years; each zhodani year is .75 standard years. The first olympiad corresponds to 2209 BC. The dating system itself has been in more or less continuous use since then, with minor lapses due to war or temporary decline of ruling parties.

Droyne: Intelligent major race inhabiting scattered worlds within an area slightly larger than the range of the current Third Imperium. The Droyne area small race, derived from winged herbivorous gatherers. They vary in size depending on caste, but generally stand 1 meter tall (large workers and warriors can be larger than humans). The history of their evolution remains a puzzle because their home world is not known with certainty.

Droyne society is divided into rigid castes determined when an individual reaches adolescence. The six castes of the Droyne all serve different functions within Droyne society. Although identical at the time of caste selection, caste members develop pronounced physical and mental differences by maturity, different genetic programs being awakened by differences in diet and environment among the various castes. Young leaders, for instance, experience a nearly 30% increase in brain size in the first year after casting; drones develop sexual organs; and so on. The following are descriptions and definitions of the castes.

The Worker. Manual labor and mundane ordinary activity are the province of the worker. Workers are not too smart, and are temperamentally suited to contentment with ordinary labor and subservient tasks.

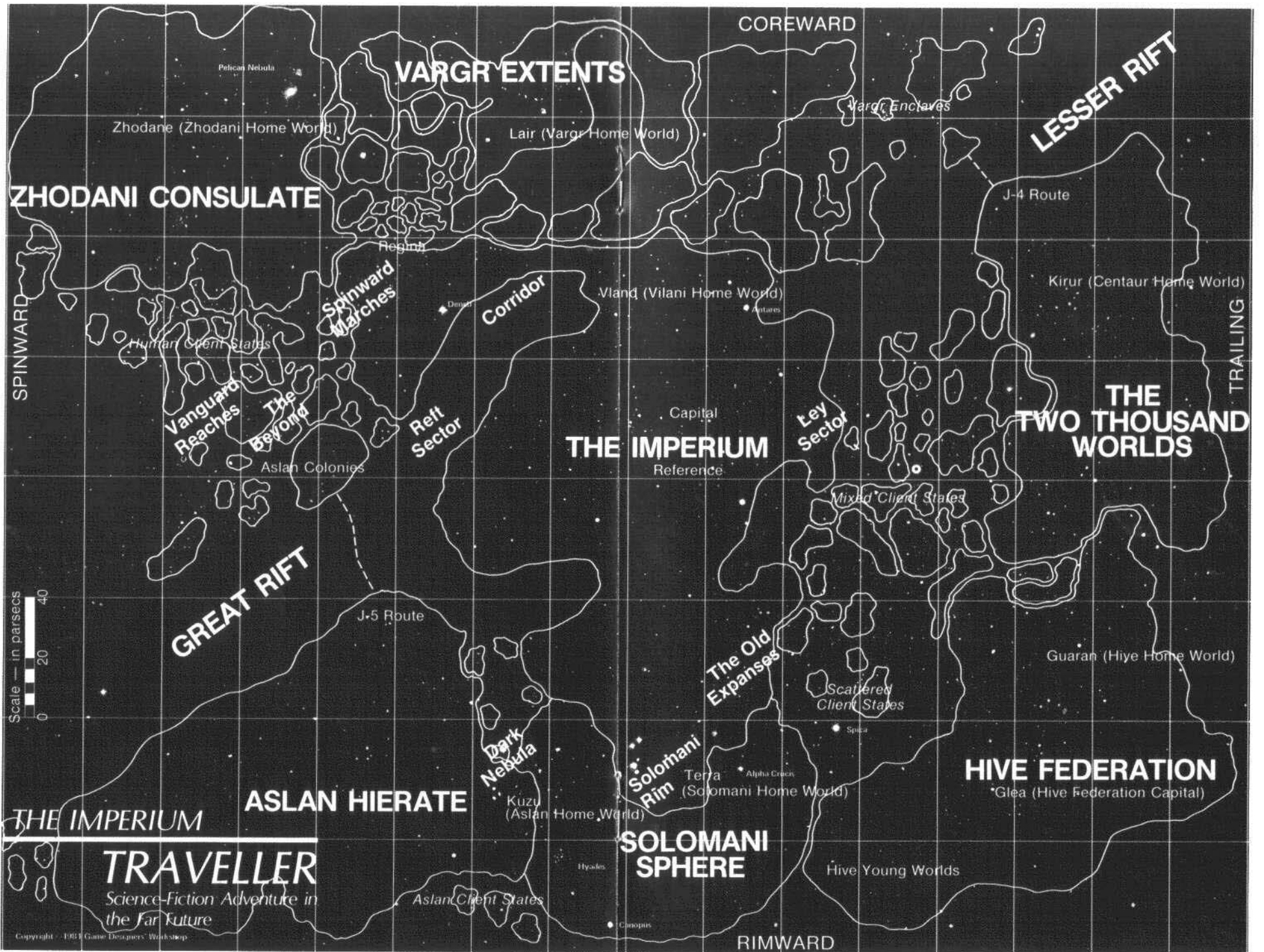
The Warrior. Trained for combat and possessing comparatively well developed muscles and reflexes, the warrior is the security troop, the soldier, the marine, and the policeman of the Droyne culture. They are common in frontier bases, and less numerous in civilized areas.

The Drone. Drones have a variety of purposes in Droyne society. They perform a reproductive role which makes them both fathers and mothers to Droyne young, and they have a role in the ceremonies which determine caste for maturing young. In addition, drones comprise a sort of middle management caste, responsible for many of the routine functions in business, trade, and administration.

The Technician. This caste is the science-oriented portion of Droyne society and



Droyne Leader



is concerned with both research and practical implementation of technology.

The Sport. Although the caste system of the Droyne is rather rigid, the sport is the deliberately accepted exception to caste structure. Sports are special individuals who cross caste lines to become individual scouts, messengers, representatives, hunters, prospectors, and other occupations that require individual initiative or separation from Droyne society for long periods of time. A sport is the most probably encountered Droyne away from a Droyne world.

The Leader. Leaders are required to manage and direct society. They are ultimately responsible for everything that the Droyne as a whole do.

Droyne Society: There is little individual freedom in Droyne society, and as a result, society and government join into one concept. Workers work. Leaders lead. All of society dedicated to continuing the existence that provides all members with food, shelter, and the other amenities that make life enjoyable. In addition, there is little discord in Droyne society when things are running smoothly, as each member of society has its own function to perform. Only when disaster happens is the group forced to strain.

A typical Droyne group consist of a variety of Droyne from the different castes. There will be many workers, few drones and leaders, and technicians and warriors based on current needs. Each group will also have several sports, although they may not be present, instead occupied with their own solitary tasks.

This is not to say that Droyne are mindless. Leaders are quite capable and responsible; warriors have strategic and tactical senses; technicians are inventive and clever. But all accept the central group as a part of their lives and work for its benefit above their own.

Emperors of the Flag. During the Civil War period (604 to 622), the Imperium was in the hands of a succession of naval officers of flag (admiral) rank. These seventeen emperors achieved the throne through assassination, fleet action, political maneuvers, and general mayhem. The year 619 particularly saw six emperors serve on the throne, none of them for more than three months.

The succession of Emperors of the Flag began with the seizure of the throne by Olav hault-Plankwell in 604, which action precipitated the Civil War. It ended with the naming of Arbellatra regent of the Imperium in 622. See also Civil War.

Empire. Group of independent states, duchies, nations, tribes, worlds, or systems under the supreme rule of an emperor.

Express Boats. The primary means of interstellar communication is the physical transport of messages by a jump-capable ship. Within the Imperium, the method is called the express boat system. Small, fast, information carrying ships are specially constructed to make large jumps and carry data for retransmission. Outlying worlds of the Imperium stand nearly four years from the capital, and express boat links have been established to insure the rapid transmission of messages (governmental, commercial, and private) with a maximum of efficiency.

Selected locations along major trade routes are established as express stations; as orbital facilities which service and refuel xboats on their communications runs. As an xboat arrives in a system, it beams its recorded messages to the express station, which then retransmits them to an xboat standing by for a jump outsystem.

Time between jumps is almost always less than four hours, and can be under seven minutes. The speed of communication is thus nearly the speed of jump (xboats are equipped with jump-4 drives, four parsecs per week). In practice, this speed is somewhat reduced as trade routes do not follow straight lines, and not all jumps are made at jump-4. Average speed approximates jump-2.6 per week.

False War (1082 to 1084). See Fourth Frontier War.

Federation. Group of states, worlds, or systems, each internally independent, joined into a union to which has been surrendered certain rights and responsibilities, most generally to do with foreign affairs.

Fifth Frontier War (1107 to -): Latest in the series of continuing wars between the Zhodani and the Imperium. Following several years of unrest and provocation, Zhodani forces attacked across the Imperial borders while previously placed guerrillas on selected Imperial worlds began uprisings. Vargr and Sword World forces allied with the Zhodani also participated in the attacks.

First Frontier War (589 to 604). The first of the modern border clashes between the Imperium and the Zhodani, sparking the beginning of a continuing antipathy between the two major lines of humaniti.

With the conclusion of the war, Olav hault-Plankwell returned to the Imperial core with his war fleet and took the reins of government, dispatching Empress Jaqueline and thus beginning the Civil War and the reign of its Barracks Emperors.

First Imperium (-4045 to -2219). The first major interstellar civilization, politically and culturally dominated by humans originating on Viand. The jump drive was discovered on Viand in -9235. Immediately the Vilani discovered a number of interfertile and technologically primitive human races on worlds within 60 parsecs. These were gradually brought to a high-technology state with Vilani help, and assimilated into a loose interstellar community bound by trade and common culture. Eventually, the client races themselves explored beyond the local sphere, contacting and trading with still more races. These new races gained their technology without being assimilated into Vilani culture; the resulting increasing friction eventually resulted in a series of wars, beginning about -5400. In response to the threat, Viand began tightening its control of its trade sphere, finally organizing it into a centralized state in -5273. This marked the beginning of the First Imperium, although there was as yet no emperor. During the thousand year period of the Consolidation Wars, Viand conquered and absorbed its enemies until in there were no longer any civilized states on its borders (except for a portion of the Vargr Extents, isolated from the Imperium by the Great Rift). The last war ended in -4045, and Vilani dating begins at this point. With no exterior threats, the Pax Vilanica lasted for nearly 1200 years; at its height, attained soon after the end of the wars, the First Imperium contained 27 sectors and over 15,000 worlds. However, the cost of maintaining centralized control over this vast expanse was cultural rigidity; exploration had ceased with the beginning of the wars; now scientific research slowed to a halt, and the beginnings of a hereditary caste system began to

emerge. Civilization was in decline. As long as there was no exterior threat, the Imperium was safe; but gradually, despite all efforts, technology leaked across the borders. New interstellar states arose, and the Imperium could no longer afford to absorb them. Gradually, the Imperium lost territory along its coreward and trailing marches. Then, in -2422, the Imperium was contacted along its rimward border by the Terrans, recently emerged into space. Terran expansionism led to a series of interstellar wars, ultimately resulting in Terran conquest of the Imperium in -2219 and the founding of the Rule of Man.

The First Imperium bore many names in its long life, including the Grand Imperium of Stars, the Grand Imperium, and the Vilani Empire.

First Interstellar War (-2408 to -2400). The first military engagement between the Vilani of the First Imperium, and the Solomani of the Terran Confederation. Beginning an on-again, off-again series of wars between the two major human races, this war ended in the defeat of the Imperium and the beginning of ascendance of the Solomani. See Nth Interstellar War.

Fourth Frontier War (1082 to 1084): Also known as the False War. Short, inconclusive war fought primarily in the Jewell subsector between the Imperium and the Zhodani Consulate. The fourth of the frontier wars in the Spinward Marches with initial assaults by the Zhodani against Jewell and Regina subsectors stalled at the borders. Its final battle, the Battle of Two Suns, 1084, was waged in the vicinity of Yres and Menorb and resulted in Imperial victory. The armistice was signed before instructions for the conduct of the war were received from the capital.

Gas Giant: A large planet with an extensive atmosphere of hydrogen and hydrogen compounds. Starships fuel themselves by diving into this atmosphere and skimming hydrogen from this atmosphere. Jupiter, in the Terra system, is an example of a gas giant.

Glea (Glea/Liana 0209-A667800-F): Main coordinating center of the Hive Federation since 410. Center of the Glean Cluster, an unusually rich grouping of 16 Hiver-habitable worlds, mutually accessible by jump-1 shipping.

Guaran (Guaran/Hive 0307-A565800-F). Homeworld of the Hivers. Guaran has no special political importance, although it attracts millions of tourists annually from all over the Federation.

Gunboat: Ultimately, the distinction between ground, air, and space craft disappears for military vehicles, and a single type of vehicle assumes all of the roles for system defense. Called gunboats, they are capable of extended operations in vacuum, atmosphere and water, ready to continue resistance to enemy action. Individually, the vessels are strongly armed, and can fight enemy ships while later

supporting ground troops or bomb enemy installations. Further, they can continue resistance for long periods, hiding on oceans or in the local gas giants, and coming out only when there is promise of enemy losses.

Typically, a gunboat is fast, well-armed, and well-armored. It is capable of a wide variety of military responses, and has a high survival potential. Mass displacement: 200 to 600 tons.

Hive: Intelligent major race with a large federation trailing the Imperium. Hivers average 1.5 meters from ground to top of upraised head and weigh about 150 kilos. Descended from omnivore gatherer/scavenger stock, they are the most alien of the major races. Hivers exhibit a modified six-fold radial symmetry; the body has a calcareous internal skeleton consisting of a series of rings supporting the limbs and a fused carapace protecting the brain and internal organs.

The head is a modification of one of the limbs and contains six eyestalks and six manipulative tentacles, plus paired infrared sensor organs. The other five limbs are identical (except for slight modifications of the hand opposite the head) and are used as arms and legs indiscriminately. Each limb ends in a six-fingered radial hand. Fingers are very flexible and have muscular suction cups on the lower surface about halfway to the tips. Hiver arms and hands are generally weaker than human, but are very tough and difficult to injure.

The mouth (digestive opening) is on the lower surface of the body. There is no sound-producing organ, but hivers do have three ears placed around the neck near the head.

Hivers have only one sex. Reproductive cells are exchanged each time that hivers meet, using the modified rear hand (the process has been termed by humans "shaking hands"). The cells are kept in a reproductive pouch on the lower body surface where they conjugate, exchanging genetic material. Once every forty days or so, a cell will develop into a larva, which then drops from the parent's body. Hive planets are mostly wilderness, and the larva will enter the wilds, where most are killed. After about a year, survivors return to civilization, where they are welcomed into any nest and begin their education as citizens. Parental instinct in hivers is very strong, and the young are adopted by the entire nest. (Note that this instinct applies only to the year-old returnees; Hivers have no concern for the younger larvae, and in fact consider them minor pests.)

Hiver language is a combination of arm/tentacle waving and physical contact. The written language is ideographic, and is used as a standard language among the races of the Hive Federation. Hivers talking among themselves use all three aspects of language (gesture, touch, and writing) at once, a process capable of great subtlety and sophistication, but unintelligible to the outsider.

Hivers are unique among major races in that they had a complex culture before becoming sentient. Originally, they lived in the tunnels and built-up mounds of a large (1000 kilogram) burrowing animal. In exchange for shelter, they gave food. They farmed fungus, foraging outside for decaying vegetation and dead animals as a source of food for the fungus. Burrowers were allowed to graze in the farm tunnels. Hivers ate the fungus and whatever fresh food they could find outside. Intelligence arose as the outside environment changed, forcing the foraging parties to travel farther and discover new sources of food and fertilizer; foragers advanced from simple scavenging and gathering to complex cooperative efforts to hunt and trap



live game.

Today, fungus remains the staple of the Hiver diet; fungus growing is a highly developed art. Most buildings retain the beehive shape and large underground tunnel complexes of the original burrowers, but are constructed by machines; the burrowers are now reduced to the secondary function of keeping the tunnels clean. Hiver attachment to them is essentially non-rational; they just feel more comfortable with the burrowers around.

Hiver Society: Hive society is highly individualistic. The term Hive results from an early human misconception, stemming from the appearance of the Hivers' building and tunnel complexes. Nests contain from five to five hundred individuals, usually centered around some common endeavor. While one hundred is the average size for a nest (and was the size in pre-civilized times), larger groups may come together for some civilized purpose such as large manufacturing companies or universities. Small nests are usually spaceship crews or isolated research parties. A young hiver will spend his first fifteen years in his home nest; thereafter, nest changes may take place as often as a modern human might change jobs.

Because of the nature of their reproduction, hivers never experienced the population pressures so important to human history. The population of the homeworld is now only a few hundred million, only ten times greater than it was in pre-historic times. Predators control the young; when the adult survival rate rises, thus increasing the numbers of young produced, the predator population increases proportionately and the balance is maintained. Space colonization arose not from pressure but from curiosity, with which Hivers are amply endowed. They have colonized only those planets with climates most pleasant to Hivers; if the planet has no predators that like to eat Hiver larvae, they are imported. Because of the high birth rate, a colony will rapidly fill up to its maximum population level of a few hundred

million, and will then stabilize. Hivers like planets of size 6 or less, with thin or standard atmospheres and unvarying climates. Hiver enclaves, for commercial or scientific purposes, are found on worlds of more extreme characteristics.

Hive industry and business excel at communications technology. Major exports include artificial and computer languages, translators, and sophisticated electronic hardware of all types. Hiver mathematical systems are much in demand for their power and elegance.

Hive Federation: Human term for the loose interstellar community dominated by the Hivers; Hive Confederation is also sometimes used. The Hivers have only one culture and one language; the Hiver genotype (with individual variations similar in degree to differences between individual humans of the same race) is also constant. The Federation government (if such a term is applicable) is mostly concerned with maintaining the uniformity of the Hiver culture and species. This is accomplished by frequent reproductive embassies from one planet to another. Members of many different nests will shake hands with everyone nearby in a sort of farewell party and will then board a large embassy ship bound for a far-off world. Once there, they will meet with as many people as possible, shaking hands and exchanging news, art, gossip, scientific information, political views, and so on for about a year. They will then return home for another year-long round of parties, discussions, and handshaking. Most disputes among communities are handled in these embassies; others, considered too urgent or transient to wait for an embassy, are settled by judges. There is a considerable body of Hiver common law and custom, and a judge is a person who has spent years in study of the law; judges' decisions are not necessarily binding and are open to compromise, but carry a great weight of custom.

The discovery of alien races and their integration into society required a slightly more formal organization, which grew out of the coordinating body which schedules embassies. Two additional bodies were established: the Federation Navy and a development agency.

The Hiver parental instinct was aroused by the discovery of numerous intelligent species less fortunate than themselves, and work began immediately to lift the "children" to civilization. An early experience with an aggressive race led to the establishment of a system of quarantine worlds, denied entry to (or knowledge of) interstellar society. Covert operations are in progress on quarantine worlds to modify overly-aggressive cultures into acceptable members of the Federation, and several quarantined planets have been opened since the beginning of the program. So far, no quarantined race is close to achieving interstellar travel on its own; public debate continues on what to do in such a case.

The navy is the main instrument of military force. Hivers came late to the concept of war and are more comfortable with high-technology, long-range violence, disliking the personal approach of ground combat. When ground forces are absolutely needed, other races of the Federation generally supply the troops. Federation armed forces are essentially a deterrent force, and are seldom used as an instrument of policy.

Other races of the Federation are equal partners in society, although the structure of society is Hiver-generated, and those races able to adapt best to a Hiver way of life and customs have been most successful. All races participate in the embassies, although in a modified form. Some associate species retain strong intern-

al governments or police forces to regulate the aggressive tendencies of their members, but whatever the solution reached, all Federation-member societies are non-aggressive.

Most worlds of the Federation have communities of several species; races inhabit the worlds they find most pleasant.

Holiday Year: The year zero in the history of the Third Imperium, established by Cleon I to commemorate the establish the Imperium. Technically, an aspect of calendar reform, the use of the year zero provides a central date point for counting years back into the Long Night and forward into the future of the Imperium. The actual advantages of a holiday year are slight: centuries begin in the hundredth numbered year instead of the first numbered year, and the number of years between any two dates can be determined by subtraction.

More importantly at the time, the holiday year was used as part of the public relations campaigns which were impressing the authority of the Imperium upon local governments. The minor requirement of changing to the new calendar Systems was used to determine cooperation by those governments. See also Dating Systems.

Humaniti (former spelling Humanity): Collective name for all of the human races, including Solomani, Vilani, and Zhodani and others. See Humans.

Humans: Intelligent major race dominating the Imperium and several additional interstellar communities. Humans stand approximately 1.8 meters in height and weigh about 100 kilograms. Descended from omnivore gatherers, humans developed intelligence in response to shifting climatological factors.

The most unusual aspect of humaniti is the fact that humans are present on many different worlds and stand at various levels of development on those worlds. The Solomani Hypothesis states that Humans evolved on Terra (Sol subsector) and were scattered to many different worlds by the Ancients for reasons currently unknown. The result is that many different, parallel human races exist, and co-exist throughout known space.

The three most widespread human races are the Solomani (humans from Terra), the Vilani (humans from Viand), and the Zhodani (humans from Zhodane).

See also Ancients, Humaniti, Solomani Hypothesis, Solomani, Vilani, Zhodani.

Imperial Edict 97: This executive order is the enabling act for the use of Imperial warrants. Unusually obscure for such a wide ranging and powerful edict, it is nonetheless on file at all Imperial installations. The edict text runs to 34 pages, much of it pure legalese; when distilled down, it proves very direct- assist the holder of an Imperial warrant with all the power you can bring to bear.

Imperial Warrant: Instrument of power issued at the highest levels of government. A warrant is a written or electronic document provided to trusted agents of the Imperium as a method of bypassing the bureaucracy. Typically, a warrant is provided by the Emperor to an individual who utilizes the power it provides to accomplish some mission. Missions may include establishment of colonies in areas requiring development, the assumption of military command in the midst of a crisis, and the unilateral establishment of new noble lines to administer provinces

which have suffered from war or economic collapse. See also Imperial Edict 97.

Imperial Research Station: The scattered worlds of the Imperium manifest a wide range of technological levels: this diversity is maintained by the distances between worlds, the high cost of transportation, and the relative independence allowed to worlds within the Imperium.

Nevertheless, the Imperium itself is constantly involved with research projects at the forefronts of technology. While some new technology can be purchased from advanced cultures beyond the Imperial boundaries, such high technology is expensive, and still requires a solid technological foundation to allow its usage. Consider: however useful solid-state chip circuits are, they still require a firm grounding in electronics, and cannot be used on a large scale without electronics, individual solid-state chip components, photo processing, and even crystal culture. It is vital that the Imperium pass through many stages of technological development on the way to achievement in higher tech level areas.

Imperial technological research is performed in two ways: under contract by corporations, or in established Imperial Research Stations. The difference is that the corporate (or privately financed) research is directed at specific practical uses, while Imperial projects are breaking new ground on the forefronts of knowledge.

Private Research: On a scale as vast as the Imperium, it is often cheaper to duplicate research rather than search out and contract for technology somewhere in the Imperium. Trade between different worlds often disseminates knowledge and certain technologically advanced items throughout the community of worlds. If a certain item proves useful, local companies will try to achieve the same technology, and soon enter into local manufacture. Local manufacture takes into account local preferences, as well as provide local employment. It also avoids potential problems with licensing agreements and arrangements.

Imperial Research: The Imperium finances research into a variety of areas in the forefront of knowledge. Often this is an attempt to duplicate technology observed or reported in neighboring cultures and not yet within the ability of Imperial science. Such research stations are sited in areas which need the boost to the local economy, or in remote areas far from the potential disturbance of Imperial politics. Many different stations may be working in the same region, and many different areas of knowledge may be under investigation at one time. In general, one station will be constructed for one purpose, and continue in that area of knowledge for its entire span of usefulness. Its size, personnel roster, power plant capacity, and even visibility profile, are dependent on its area of investigation.

Imperial research may delve into many areas. Some examples include black hole research, both large-scale and mini-black hole investigation, instantaneous transmitter development (so far proving impossible), advanced gravity manipulation, genetic manipulation, anti-matter containment, weaponry research, disintegrator beams, black globe development, deep planetary core soundings, nova prevention (and prediction), psychohistory, mass population behavior prediction, psionics, stable superheavy elements, deep radar analysis, long-range detection systems, robotics, artificial intelligence, stasis and time travel, so-called magic, cryptography, bionics, personal shields, x-ray lasers, and high temperature superconductors.

Interdiction: The Imperial practice of interdiction of worlds within the boun-

daries of the Imperium had long been a source of contention between liberal and conservative factions in the government. Interdictions must be approved by a member of the Imperial family, but generally such approval is given in response to a request from an interested service, almost always the Scouts or the Navy.

It is generally held that the Scouts recommend interdiction to shield a young or sensitive culture from the interference that trade and commerce will bring.

The Navy is held to be more vindictive in its recommendations, using interdiction to punish local governments or to hide its own mistakes.

Interdicted worlds are awarded travel zone red ratings by the Travellers' Aid Society. See also Red Zone.

Kirur (Kirur/Thirty 0505-B863A03-F): Homeworld and capital of the Two Thousand Worlds— the interstellar empire of the K'Kree. The planet's oceans are extremely shallow and the world exhibits almost no volcanic activity, very unusual for a world of its size. Kirur has one large continent, which was conquered in prehistoric times by the current ruling clan; Kirur is one of the most politically stable planets known.

K'Kree: See Centaur.

Kuzu (Kuzu/Kilane 0406-A876986-E): Homeworld of the Aslan race and capital of the Aslan Hierate.

Lair (Lair/Grnouv 0802-A8859B9-F): "Homeworld" and capital of the Vargr Extents. Unusually enough for the capital of a star-spanning empire, several sections of the planet still boasted independence from central control only a few years ago.

Lanthanum: A rare earth element, the first of the inner transition metals. Vital to the construction of the inner coils of interstellar jump drive units.

Major Race. An arbitrary distinction based on the achievement of a specific intelligent race. A race which achieves interstellar travel (jump drive) through its own efforts is classed major; one which does not is classed minor.

To date, generally accepted major races include Humaniti (Zhodani, Solomani, and Vilani, but not other examples), Aslan, the Hive, Centaurs, Vargr, Ancients, and Droyne.

The Suerrat (a human race) have been held to be minor, because their achievement of interstellar travel utilized generation ships. Similarly, the Geonee were originally thought to be a major race, but their development of jump drive was based on recovered Ancient artifacts rather than true racial efforts. The Geonee dispute this prevailing opinion and hold the (generally unshared) view that they are of major standing.

The Droyne have been demonstrated to be major, having developed jump drive as far back as -7000. At present, however, they do not build or use jump drives, and remain voluntarily sequestered in their scattered systems to spinward.

Mercenary. The remote centralized government of the Imperium is possessed of great industrial and technological might, but it is also unable, due to the sheer

distances and travel times involved, to exert total control everywhere within its starspanning realm. On the frontiers, extensive home rule provisions allow planetary governments to choose their own forms of government, raise and maintain their own armed forces for local security, pass and enforce laws governing local conduct, and regulate (within limits) commerce. Defense of the frontier is primarily the responsibility of local indigenous forces, stiffened by scattered Imperial naval bases manned by small but extremely sophisticated forces. Conflicting local interests often settle their differences by force of arms, with Imperial forces looking quietly the other way, unable to effectively intervene. They are able to operate as a police force only in the most widespread of conflicts as they cannot jeopardize their primary mission of defense of the realm. Only when local conflicts threaten either the security or the economy of an area do Imperial forces take an active hand, and then with overwhelming speed and force.

In this environment, the soldier for hire finds active employment. Tolerance by the forces of the Imperium make the hired military force a practical matter. Imperial policy allows the marketplace to provide military force to those who can afford it; one line of thought is that hired military can be more effectively controlled if it gets out of hand, as opposed to nationalistic or politically motivated military forces.

The Imperium does stand ready to enforce its own standards however. Certain basic restrictions against improper scales of force are observed, and weapons such as poison gas or nuclear devices are scrutinized carefully. If matters get out of hand, then the local Imperial forces stand ready to intervene. The general situation tends to keep the mercenary forces within the Imperium in check.

Minor Race. An intelligent race which has not achieved jump drive through its own efforts. For most races, this classification is appropriate. Many are contacted before they have reached a technological level capable of even considering jump drive, thus permanently prejudicing their potential.

Indeed, the shock of such classification, and the realization that this classification pervades interstellar society, is sufficient to relegate a race to a permanent role as shopkeepers and accountants. Some slump, while others violently resist the classification. The fact that the typing is informal and arbitrary, and tends to elevate those already in power, has made resistance difficult, if not impossible.

The Solomani

The term Solomani is often used interchangeably to refer either to members of the Solomani race (or, more palatably to some, to members of the human race of Solomani descent) or to members of the Solomani political movement. The bitter fighting along the Imperial rimward frontier with the Solomani separatists has tended to obscure (to many people on isolated worlds) the important role played by loyal Imperial citizens of Solomani descent; to the experienced traveller the evidence is ever-present and undeniable.

HISTORY OF THE SOLOMANI PEOPLE

Independently developed from the original human stock on Terra, the Solomani achieved space flight about 2,500 years before the founding of the Third Imperium. At that point the Vilani had enjoyed space flight for nearly 7,000 years, and had a star-spanning empire which had endured for millennia.

The Solomani contacted the Vilani (and not the reverse) less than 100 years after developing space flight, and less than a decade after their discovery of jump drive. War broke out almost immediately, and only the decadence and inefficient management of the Vilani Empire allowed the Terrans to hold out long enough to build up a sizeable space fleet and begin a wide scale counter-offensive. The final result was the triumph of the men of Earth over the old Vilani Empire and the establishment of the Rule of Man (aka Second Empire). The drift toward disintegration was, however, already strongly rooted in the fabric of the old empire and its new governors were unable to overcome its inertia. The disorganization of the last period gave rise to the disparaging term Ramshackle Empire. Within four hundred years, the Rule of Man collapsed and a seventeen hundred year inter-regnum ensued. From that long night came the establishment of the Third Empire, today's Imperium.

Although the Rule of Man was fairly brief in terms of galactic history, its span did allow the spread of the Solomani people throughout much of the region presently ruled by the Imperium, and established them almost universally in positions of wealth and authority. The Solomani came first as conquerors, then as administrators, and their establishment in positions of power lasted well past the end of the Rule of Man. Much of the current Imperial nobility consists of genetically true Solomani, with an especially high proportion of senior naval officers being from this group. All of the Emperors of the Imperium were, in so far as it can be established, pure genetic Solomani until the marriage of the Emperor Zhakirov to the Vilani noblewoman Antiama Shiishuginsa in 679.

Throughout much of the Imperium today, it is virtually impossible to distinguish Vilani from Solomani and in the middle classes, traditionally both geographically and socially mobile, the distinction has become meaningless as extensive inter-marriage has blended the two. The tendency during the Rule of Man for wealthy Vilani to change their names to Solomani surnames has further rendered any wish to make fine genetic distinctions problematical. Only in the Solomani Rim, where many planetary populations have remained overwhelmingly Solomani in character

throughout, and in the upper levels of society where individual geneologies are known with a fair degree of certainty, is there any possibility of making a meaningful distinction. Even between genetically pure Vilani and Solomani, the differences are slight.

HISTORY OF THE SOLOMANI MOVEMENT

The so-called Solomani Hypothesis (that Terra was the homeworld of Humaniti, and that all other human races developed from primitive specimens transported from Terra by the Ancients) gained wide-spread acceptance in modern times through its active advocacy by Magis Sergei Haut-Devroe (64 to 141). In fact, the notion that Terra was man's home world had been widely accepted during the Rule of Man for several reasons.

Prior to contact between the Vilani and the Solomani, numerous theories of man's origins had been proposed, and each held varying degrees of sway in the different subject areas of the First Empire. Before spaceflight, Vilani development of the biological sciences had been painfully slow. Consider the difficulties: no animal on Viand has as close a relationship to a human as a human has to a lobster or even to an oak tree. This meant, among other things, that biology received little impetus from medical research: there were few human diseases (and no diseases with animal vectors); even surgery was largely freed from the danger of infection. In addition, there were no animals available for anatomical or biological experiments whose findings would have any validity for humans. Further, when a theory of evolution was finally developed on Viand, it was very difficult to fit humans into the scheme. The fossil evidence for the remainder of Vlandish life was telling, but theories of human evolution were forced to rely on farfetched lines of descent based on superficial similarities, and no theory of man's descent was granted more than tentative acceptance. On the gross level of physical shape, and even in some internal structures, there were many similarities between humaniti and the rest of Vlandish life; after all, there are only a few ways to construct a heart or an eye. But on the cellular and molecular levels, it is clear that humans are unique; only the primitive state of Vlandish embryology, cytology, and molecular biology kept this fact partially hidden.

When the Vilani burst into the interstellar scene, the discovery of numerous interfertile human races, all equally alien to the rest of the life on their planets, and at the same time of many non-human sentients with clear relationships to lower animals on their planets, sparked a new (and correct) theory that humaniti had originated on a single homeworld and had been scattered across the galaxy by unknown agency. Some theorized a previous human galactic empire, but the discovery of numerous ruins of the Ancients seemed to point to them as the likely agents. The major remaining question was the identity of humaniti's home planet. Many candidates were proposed, and all had their (generally chauvinistic) proponents, but the one generally accepted by scientists was Urunishu in the Antares sector. Urunishu possessed a native human race and a large number of species obviously very similar biologically to humaniti, from rodents to baleen whales, including a number of primate species. Unfortunately, Urunishu was undergoing an ice age, and had suffered from intermittent glaciation for several million years, making paleontological research both difficult and, due to the scouring action of glacial flow, unlikely to retain many recent fossils.

It was at this point that biological progress began to suffer from the general stagnation of scientific research that was an unfortunate outgrowth of the Consolidation Wars and the Pax Vilanica.

Contact with Terra and the subsequent Rule of Man widely spread the notion that Terra was the true homeworld, but following the collapse of the Second Empire many independent planets rejected the explanation, claiming that documentary evidence supporting Terra's claim was largely fabricated as a political prop to a faltering government. Few scientists had actually been to Terra or had the knowledge to appreciate its claims, and no physical evidence existed off-world.

Haut-Devroe's hypothesis, however, was based on numerous fragmentary surviving Second Empire texts clearly not of government origin, mostly scientific journals printed on Terra. Since the Imperium traces its legitimacy to the Second Empire, charges of Rule of Man political fabrication were in any event no longer held to be plausible, and the predominantly Solomani make-up of Imperial aristocracy added an additional boost to widespread acceptance. Additionally, haut-Devroe was able to marshal impressive archeological evidence that Urunishu had been the site of an extensive Ancient facility, the equivalent of a zoological park, which contained various Terran fauna and flora, thus ruling out the only other serious candidate for the Human home world. While creating academic interest, however, haut-Devroe's arguments caused little true sensation, and no claims to Solomani racial superiority. When the region of Sol was reincorporated into the Imperium in 588, a small historical mission verified, to no one's great surprise, haut-Devroe's Solomani Hypothesis.

By the early 660's, however, it began to appear that the fabric of the Imperium was unraveling. The previous five hundred years had witnessed a great expansion and thus taxed the ability of the central government to control the frontier. Simultaneously, the power of the various fringe rulers grew; the power of the Sector Dukes as more territory was added to the Imperial Realm, and that of the Admirals of the Marches in proportion to increases in naval and military assets. In 606, Grand Admiral Olav hault-Plankwell returned from the successful conclusion of the First Frontier War (589 to 604) with a fleet-in-being and seized the sceptre, thus beginning a period of two decades in which a series of admirals, the so-called Emperors of the Flag, wrestled for control of the Imperium.

This period of bitter fighting saw the beginning of the Solomani Movement. In addition to causing a great deal of destruction, the period of the Civil War also caused tremendous social upheaval, and Vilani nobles and industrialists began offering a serious challenge within the Imperium to the entrenched Solomani economic and political structure. It was primarily a reaction to this challenge that the Solomani movement was born. In general terms, the adherents of the movement held that the pure Terran racial stock was somehow superior and best fit for ruling the Imperium. They based this primarily on the historical argument that the original Terran invasion, although vastly outnumbered, had succeeded in bringing down the rotten and corrupt First Empire. Radical adherents of the movement eventually came to renounce the Rule of Man as the legitimate source of power, claiming that its failure to govern well was due to the renunciation of the pre-eminence of Terra. (The Rule of Man was initiated by a decision by the Navy not to accept Earth government authority any longer; it began with the institution of a much broader representational base in the government. In the brief period between

the Nth Interstellar War and the beginning of the Rule of Man, the defunct Vilani Empire had been ruled as a conquered territory of Terra, an arrangement which most political scientists agree was totally unworkable.)

Initially, the movement consisted of only a small number of genetically true Terrans, but as the troubles grew (and financial support multiplied) large numbers of essentially nostalgic and reactionary movements formed and the Solomani gained numerous supporters. The movement was at its height immediately after the Civil War (604 to 622) and completely dominated the inner circles of the court advisers to the Empress Arbellatra.

The assumption of the throne by Zhakirov in 666 marked a turning point for the movement. Zhakirov early made clear his rejection of the Solomani Movement's basic positions and began bringing in advisers, first of Solomani descent but not in sympathy with the movement, and later Vilani nobles. Zhakirov's final break with the movement came when he chose Antiama as his bride, thus guaranteeing an heir of mixed Vilani and Solomani stock, and banished the majority of his Solomani Movement advisers from court.

To placate the more vocal of the Solomani spokesmen, the Solomani Autonomous Region (or the Solomani Sphere) was formed in 704. Effectively, the Imperium turned its back on its rimward fringes for nearly two centuries and allowed the region to develop independently. Trade continued; technological exchanges continued; even taxes continued. The major thrust of the Imperium, however, was to spinward.

In the mid-900's, Empress Margaret turned her attention to the Solomani in response to appeals from several client-worlds within the sphere. The reports indicated that the Solomani were perhaps too overbearing in their own superiority. Authority was concentrated in a few highly placed, genetically true Terrans, with a general disregard for the basic equality of the races. Margaret II, by proclamation in 940, declared the Solomani Autonomous Region dissolved, and reintegrated it into the Imperium. The Solomani resisted.

Initially, the Imperium resorted to diplomacy and bureaucracy to reabsorb scattered worlds into the Imperial mainstream. Ultimately, however, the worlds which had been added to the Sphere since 704 confronted the Imperium with their desire to remain both outside the Imperium and within the influence of Sol. The result was the Solomani Rim War (990 to 1002), an Imperial attempt by more forceful means to make the reintegration stick.

Exhausted, however, by the Third Frontier War (979 to 986), the Imperium was unable to complete the process. When in 1002 Imperial forces recaptured Terra after a long and costly ground and space campaign, both sides were willing to accept an armistice based on the status quo. No treaty was ever signed and the cease fire line has become the de facto border with occasional border incidents on a fairly regular basis since. A total of about 25% of the old Solomani Autonomous Region was reintegrated at the time of the cease fire.

Today in the Imperial area of the Solomani Rim, Solomani agitation is widespread, and wherever political freedom is tolerated there is generally at least one (and sometimes several rival) Solomani Parties. The Solomani Movement itself is fragmented, with hardliners adhering to a rigid belief in Solomani supremacy and sole fitness to rule the Imperium while more moderate forces work toward independence of the old Solomani Autonomous Region from the Imperium, presumably to join those worlds currently comprising the Solomani Sphere.

MegaCorporations

Millions of organizations do business within and without the Imperium. Most of these are limited to one or two worlds. A few thousand trade over one or more subsectors, a few hundred cover one or more sectors. Only a few firms are truly Imperial in scope; these are known as megacorporations. Staggering in size, these organizations are so large that no one person can know everything they are concerned with at any given moment. Total shares of stock, annual profits, number of employees are all astronomical. Many organizations are so large that different divisions of the same megacorporation may actually be working at cross purposes. In most regions, megacorporations merely own the land their installations are on, but in some areas they control entire planets, either directly or indirectly.

Most megacorporations are organized very much like smaller companies (with a board of directors, a president, and vice presidents), but the board and the higher level executive officers of the company are largely out of contact with the day to day (or even year to year) functioning of the company. These upper level executives serve to plan general policy and long distance actions. The most important executives, in terms of personal power, are the various regional managers (by whatever name they may be called). A regional manager may control only a small portion of a megacorporation's total assets, but many hold more power in some regions than the representatives of the Imperial government.

A small number of Imperial regulatory agencies have power over megacorporations, and they are subject to any applicable local taxes, but, provided they do not blatantly violate Imperial sovereignty, regional managers can usually conduct their company's business as they see fit. Because a direct confrontation with the Imperium would be bad for business, intentional violation of Imperial laws is done only on a covert basis.

TITLES

Except for those pre-dating the Imperium, all corporations engaging in interstellar commerce are required to possess an Imperial charter. This is indicated by the letters LIC following the company name. LIC stands for Limited liability Imperial Charter. Occasionally, corporations make use of archaic titles, such as the Terran Ltd, Inc, Amt, AG, SA, etc. This is done either to indicate that the company predates the Third Imperium (rarely the case) or to add charm and quaintness to the title.

A few Vilani megacorporations are still in business under their Vilani titles (Makhidkarun, Naasirka, Sharurshid, and Zirunkariish). The names, at least, date back to 1st Imperium times, and were the names of the Imperial organizations, half-industrial trusts, half-government bureaus, which controlled commerce in the Vilani Imperium.

CAPSULE DESCRIPTIONS

Space considerations prohibit a complete description of the activities of every megacorporation. The following are basic descriptions.

Delgado Trading, LIC: Originally a manufacturer of military hardware and widely known for their work in miniaturization, Delgado has extensive holdings in heavy mineral mining and refining, publishing, antiquities trading, and recently, the toy industry. Founded in 997, Delgado is the youngest of the megacorporations.

Stock ownership: Imperial family—5%, Delgado family— 47%, Noble families— 27%, Private ownership- 21%

General Products, LIC: Largely concerned with heavy industry, General is a manufacturer of starships, non-starships, and heavy machinery of all sorts. General is known for inexpensive products of adequate quality, but of late its starship division (particularly its military products) has been plagued with disaster.

The corporation was formed by the merger of a number smaller manufacturing concerns shortly after the end of the Civil War, in the period 620 to 622.

Stock ownership: Imperial family— 5%, Hortalez et Cie— 26%, Noble families- 35%, Private ownership- 12%, Antares Holdings, LIC- 12%, Other- 10%

GSbAG: Founded, according to company propaganda, in -2438 from a consortium of old Terran manufacturing firms. In actual fact, there is no concrete evidence of the corporation's existence prior to a contract with the Sylean Federation Navy in -334. Unlike other manufacturers, GSbAG (popularly known as Gas-bag) has restricted itself almost exclusively to the manufacture of starships since its earliest known existence.

GSbAG is one of two firms charged with the manufacture of the personal vessels of the Imperial family and is a major contractor for the Imperial military. Their products command extremely high prices, but it is generally conceded that the quality makes them well worth it.

Stock ownership: Hortalez et Cie— 19%, Imperial family— 4%, Noble families (includes the families of the legendary founders)- 44%, Other corporations- 13%, Private investors- 4%, Other- 16%

Hortalez et Cie, LIC: Founded in 221 by Lucienne Hortalez, capitalized from family funds. Primarily a banking and investment house, Hortalez specializes in loans to planetary governments, mercenary unit bonding, underwriting of large scale projects of all sorts, and other fiscal activities. Hortalez is one of the major insurance houses in the Imperium. In some regions (the Spinward Marches especially) the firm acts as a mercenary clearinghouse.

Stock ownership: Hortalez family— 74%, Other corporations— 15%, Imperial family-5%, Other- 6%

Instellarms, LIC: Founded in 626, shortly after the end of the Civil War, by Axel Murdoch, a retired colonel of mercenaries. Taking advantage of inside contacts in the Imperial military, Murdoch was able to obtain large quantities of surplus military equipment at very low prices, but still costing billions of credits. Where Murdoch got his financing is not known.

Murdoch's connections with various mercenary unit commanders coupled with a willingness to ignore the Imperial regulations on mercenary warfare where the profits were large enough enabled Instellarms to dominate the mercenary arms trade in the coreward sectors of the Imperium within ninety years, and in the

Imperium as a whole within two centuries.

Manufacturing, buying, and selling military equipment of all sorts, Instellarms is a specialty supplier of mercenary units of all sizes and types. Agents of the firm can often be found on a battlefield, negotiating the purchase of the equipment of the losing side before the battle is completely over. The company does not deal in interstellar vessels and chemical, bacteriological, or nuclear weaponry, but these can sometimes be obtained on low law level worlds for astronomical prices.

Stock ownership: Murdoch Holdings, LIC- 32%, Hortalez et Cie- 30%, Noble families- 8%, Ling-Standard Products- 6%, Ichiban Interstellar, LIC- 5%, GSbAG- 5%, Sternmetal Horizons, LIC- 8%, Other- 6%

Ling-Standard Products: Originally a mining firm (and still very active in that area) LSP currently engages in a wide spectrum of activities including (but by no means limited to) manufacture of electronic equipment of all sorts, ground and air vehicles, starships and starship armaments systems, drive systems, power systems, computer systems and software, small arms, and a variety of other items. Concerned to a small degree with banking, insurance, and other activities, LSP maintains mining and manufacturing facilities throughout the Imperium and beyond.

Stock ownership: Imperial family- 8%, Hortalez et Cie- 26%, GSbAG- 23%, Noble families- 8%, Murdoch Holdings, LIC- 8%, Other- 27%

Makhidkarun: The origins of this company are shrouded in the mists of the Long Night. All that can be stated with certainty is that its foundation pre-dates the Third Imperium. Makhidkarun specializes in the communications and entertainment industries. The firm produces fine musical recordings of all types, two and three dimensional motion pictures, books, magazines, and art reproductions of all sorts. Its communications division produces a wide variety of data processing, storage, and retrieval equipment and the requisite software for it. A gourmet foods division trades in all manner of rare and expensive foods, wines, and delicacies.

Stock ownership: Imperial family— 5%, Noble families— 28%, Hortalez et Cie- 28%, Investment trusts- 25%, Private ownership-14%

Naasirka: Naasirka specializes in the manufacture of information storage and processing equipment and software, computers, robots, and other complex electronic devices. The firm is a Vilani megacorporation of uncertain lineage, but it is known to have been in business prior to the founding of the Sylean Federation. Naasirka is the largest supplier of communications equipment to the Imperial Interstellar Scout Service's xboat branch.

Stock ownership: Imperial family— 4%, Investment trusts— 24%, Noble families- 23%, Hortalez et Cie- 11%, Other corporations- 14%, Igsiirdi family- 13%, Private ownership- 11%

SuSAG, LIC (Schunemann und Sohn AG, LIC): SuSAG engages in a wide range of chemical, pharmaceutical, and geneering activities. SuSAG is the primary manufacturer of anagathics for the Imperium, and maintains psi drug manufacturing plants in certain client states outside Imperial borders. Because of the bad reputation for safety of its chemical/biological warfare division, the firm is not well liked in many regions, even though all of SuSAG's dangerous manufacturing plants and

experimental stations are located on remote, uninhabited planetoids. Since sabotage of its plants is widespread, and its products extremely valuable, the firm maintains a large paramilitary security force, equipped to tech level 12-14 standards.

SuSAG was founded in 252 by Gustav Schunamann, financed from royalties received for his purification process for various psionic drugs, and using the shell of a bankrupt Sylean firm (hence the archaic AG in its name). In 800, psi drugs were declared illegal, all plants engaged in their manufacture within the Imperium closed, and all stocks confiscated and destroyed. Fortunately for SuSAG, the firm had by then expanded into other operations, and although badly damaged, managed to survive and prosper. SuSAG often engages in clandestine military ventures (using mercenary units) to protect their extra-Imperial interests.

Stock ownership: Schunamann family- 52%, Imperial family— 2¹/₂%, Hortalez et Cie- 9%, Other corporations- 23¹/₂%, Private ownership- 7%, Other- 6%

Sharurshid: A Vilani trade and speculation corporation, with very little manufacturing capability, Sharurshid trades in luxury goods from all parts of the Imperium and many areas beyond. Most rare Terran wines and spirits are carried on the starships of Sharurshid.

Stock ownership: Sharurshid trust— 46%, Imperial family— 3%, Other corporations- 14%, Zirunkariish- 13%, Hortalez et Cie- 14%, Private ownership- 10%

Sternmetal Horizons, LIC: Sternmetal is primarily engaged in mining operations and manufacturing. It produces mostly power generation equipment of all types, including power plants for starships, air and ground vehicles, cities, and industrial installations. Additionally, Sternmetal is the largest manufacturer of food synthesis equipment in the Imperium.

Stock Ownership: Imperial family— 2%, Hortalez et Cie— 29%, Investment trusts- 32%, Noble families- 18%, Antares Holdings, LIC- 19%

Tukera Lines, LIC: Tukera Lines operates a vast fleet of passenger and freight vessels throughout the Imperium, following the xboat lines. In some subsectors (particularly the older, more established regions of the Imperium) Tukera Lines has a virtual monopoly on long distance shipping and travel.

The oldest record of the firm is a charter from the government of the Sylean Federation, but family tradition holds the company to be several centuries older.

Stock Ownership: Tukera family- 29%, Imperial family- 3%, Other Corporations— 9%, Private ownership— 31%, Investment trusts— 28%

Zirunkariish: A Vilani banking and investment company. Unlike most other Vilani megacorporations, whose origins are shrouded in mystery, Zirunkariish is known to have been founded by the noble Vilani family of Shiishuginsa (a member of which, Antiama, married the emperor Zhakirov in 679) in the year -425.

Zirunkariish is one of the largest insurance underwriters in the Imperium, and while its capital reserves are gigantic, it usually chooses to invest them in various trusts rather than in other megacorporations.

Stock ownership: Shiishuginsa family— 29%, Imperial family— 18%, Sharurshid trust- 17%, Hortalez et Cie- 7%, Noble families-12%, Investment trusts- 8%, Private ownership- 9%

The Emperors' List

The 1500 year period of interstellar anarchy known as the Long Night ended about a thousand years ago with the establishment of the Third Imperium. The traditions of the First (or Old) Imperium and the Second Imperium remained even after centuries of disorganization, and it was only natural for a new interstellar empire to draw on its predecessors for precedent and for stability. In a thirty year campaign which molded public opinion at the same time that battle starships were convincing local governments, Cleon Zhunastu committed a family industrial base and a firm foundation of industrial support to the creation of an empire that would rival the glories of past ages. He succeeded in forming a government that controlled, with velvet-gloved fist, nearly a hundred subsectors.

In the 1100 years since the assumption of Cleon I, the Emperor's List has been a convenient reference to the events in the growth and the development of the Imperium. The relationship of dates and emperors serves as a mnemonic device and lends color to the data.

Cleon I: First of the Zhunastu dynasty and first Emperor of the Imperium. Born -57, proclaimed hereditary emperor for life in the first year of the Imperium. Died of natural causes in 53.

Cleon II: Only issue of Cleon I; also known as Cleon the Weak. Born 21, proclaimed emperor in 53, abdicated in 54. In point of fact, a recent study indicates that the term weak may be an unfair description of Cleon II. Apparently unsuited to devious palace politics, but still recognizing the need to consolidate the power of the fledgling Imperium, Cleon abdicated in favor of his brilliant chancellor, Artemsus Lentuli. Still vitally concerned with the welfare of his former realm, Cleon spent the rest of his long, active, colorful, and from all accounts happy, life on the frontier as a self-appointed (and extremely effective) one-man fire brigade.

Artemsus: First of the Lentuli dynasty. Born -17, proclaimed emperor in 54, died of natural causes in 166 at the then incredible age of 183, demonstrating the characteristic natural longevity of the Lentuli line. The Solomani Hypothesis (that the humans of the galaxy are all descended from one genetic stock, spread by some ancient race for reasons unknown; and that the source of that stock was Terra of Sol) was proposed in 114 and received immediate, although somewhat disinterested, acceptance.

Martin I: Eldest son of Artemsus. Born 12, proclaimed emperor in 166, died of natural causes in 195. Artemsus had an elder daughter, but she did not pursue a career in government.

Martin II: Oldest issue of Martin I. Born 53, proclaimed emperor in 195, died in 244 of natural causes without issue.

Cleon III: In the dynastic crisis caused by the death of Martin II without direct issue, Cleon Zhunastu, great-great-great grandson of Cleon II by direct first issue, appeared to be the most legitimate claimant to the throne. Born 201, proclaimed emperor in 244, assassinated in 245. Also known as Cleon the Mad,

it appears that while his claim to the throne was flawless, he was not. His behavior in office soon convinced surviving members of the government that he was a homicidal maniac, and a decision to dispose of him was made and implemented in short order.

Porfiria: Fourth in the reestablished Lentuli dynasty, Porfiria was the oldest issue of the grand-nephew of Martin II. Born 201, proclaimed empress in 245, died of natural causes in 326.

Anguistus: Oldest issue of Porfiria. Born 246, proclaimed emperor in 326, died of natural causes in 365.

Martin III: Second issue of Anguistus (a preceding infant died in childhood). Born 289, proclaimed emperor in 365, died in an air/raft accident in 456 at the age of 167, having outlived his only issue. In memory of this deceased son, the title Martin IV was never used by an emperor.

Martin V: Grandson of Martin III; oldest issue of Martin IV. Born 357, proclaimed emperor in 456, died of natural causes in 457.

Nicholle: Oldest issue of Martin V. Born 401, proclaimed empress in 457, assassinated in 475.

Cleon IV: Generally believed to be responsible for the assassination of the Empress Nicholle and the murder of her immediate family, Cleon IV was a distant relation in the Zhunastu dynasty and based his claims to legitimacy on that. Generally regarded as an interloper now, Cleon IV is considered to be the first of the non-dynastic emperors. Born 423, proclaimed emperor in 475, assassinated in 555.

Jerome: Ascended the throne by right of moot election. Born 525, proclaimed emperor in 555, assassinated in 582.

Jaqueline I: Ascended the throne by right of moot election. Born 561, proclaimed empress in 582, assassinated in 606. During the reign of Jaqueline, extensive expansion of the Rimward Fringe of the Imperium took place, due primarily to her economic policies which depended on cost-effectiveness. Terra of Sol was reintegrated into the Imperium in 588.

Olav: First of the Emperors of the Flag. Olav hault-Plankwell, as Grand Admiral of the Marches, defeated the massive incursions of the Out-World Coalition in the First Frontier War (589 to 604). Upon return to the Imperial Core, Olav personally murdered the Empress Jaqueline I and proclaimed himself emperor by right of fleet control. Born 532, self-proclaimed emperor in 606, killed in battle in 609.

Ramon I: As Olav's chief-of-staff, Ramon was able to convince large portions of the fleet to attempt an overthrow of Olav. In the Battle of Tricanus 5 (609) Ramon's forces were apparently defeated, but Olav's flagship was destroyed with all hands in a final closing action. Born 560, proclaimed emperor by right of moot election in 609, assassinated in 609.

Constantus: Born 562, self-proclaimed emperor by right of assassination in 609, killed in battle in 610.

Nicolai: Defeated the forces of Constantus in the Battle of Rakakaka (610). Born 559, proclaimed emperor in 610, assassinated in 612.

George: Born 558, self-proclaimed emperor by right of assassination in 612,

assassinated in 613.

Numerous emperors of uncertain status and unlikely heritage ruled fragments of the Imperial Core from 613 to 615. None held a sufficient balance of power to be judged truly emperor, and the Home Worlds had formed a temporarily autonomous state. Nevertheless, no break in the Imperium is judged to have taken place as the Imperial bureaucracy continued to function without interruption.

Cleon V: Born 565, proclaimed emperor in 615 after the resubjugation of the Home Worlds, killed in battle in 618.

Joseph: Born 581, proclaimed emperor in 618 after defeating Cleon V in the Battle of Markatch (618), killed in battle the same year.

Donald: Born 579, self-proclaimed emperor after the defeat of Joseph in the Battle of Arakoine (618), assassinated in 618.

Emdiri: Born 571, proclaimed empress in 618 by right of assassination, assassinated in 619.

Catharine: Born 582, proclaimed empress in 619, assassinated in 619.

Ramon II: Born 566, proclaimed emperor in 619, killed in battle in 619.

Jaqueline II: Born 569, proclaimed empress after defeating Ramon II in the Battle of the Nivzhine Belt (619), killed in battle in 619.

Usuti: Born 558, proclaimed emperor after defeating Jaqueline II in the Second Battle of Arakoine (619), killed in battle in 620.

Marava: Born 551, proclaimed empress after defeating Usuti in the Third Battle of Arakoine (620), killed in battle in 620.

Ivan: Born 580, proclaimed emperor after the defeat of Marava in the Battle of Sulgami (620), killed in battle in 621.

Martin VI: Born 597, proclaimed emperor after the defeat of Ivan in the First Battle of Zhimaway (621), assassinated in 621.

Gustus: Born 581, proclaimed emperor in 621, killed in battle in 622.

Arbellatra: First of the Alkhalikoi dynasty (and occasionally considered to be the eighteenth of the Emperors of the Flag). Born 587, served as Grand Admiral of the Marches and led the defeat of the Out-World Coalition in the Second Frontier War (615 to 620). Arbellatra returned to the Imperial Core with strong fleet elements and defeated the remnants of the Central Fleet under Gustus in the Second Battle of Zhimaway (622). Proclaimed regent in 622 pending the location of a suitable surviving heir to the throne. Proclaimed empress in 629. Died of natural causes in 666.

Zhakirov: Oldest issue of Arbellatra. Born in 624, proclaimed emperor in 666. Zhakirov's marriage to Antiama in 679 marked and cemented an alliance between the Alkhalikoi dynasty and the business interests of the Imperial Core; it broke the power of the Solomani interests at court, and ultimately led to the Solomani Rim War (990 to 1002). Died of natural causes in 688.

Margaret I: Oldest issue of Zhakirov. Born 684, proclaimed empress in 688, died in a tunnel collapse without issue in 736. Margaret established the Solomani Autonomous Region in 704.

Paulo I: Second issue of Zhakirov. Born 684, proclaimed emperor in 736, died of natural causes in 767.

Tomutov I: Oldest issue of Paulo I. Born 712, proclaimed emperor in 767, abdicated in 768, died of natural causes in 801.

Paula II: Oldest issue of Tomutov I. Paula II is perhaps best known for her steady hand at the helm of state during the Psionic Suppressions of 800 to 826. Born 752, proclaimed empress in 768, died of natural causes in 836.

Tomutova II: Third issue of Paula II (preceding heirs died before ascending the throne). Born 782, proclaimed empress in 836, died of natural causes in 908.

Margaret II: Oldest issue of Tomutova II. Born 824, proclaimed empress in 908, died of natural causes in 945.

Styryx: Oldest issue of Tomolin (oldest issue of Margaret II, born 901, died 944). Born 920, proclaimed emperor in 945. abdicated in 989 in the repercussions following the mismanaged Third Frontier War (979 to 986).

Gavin: Oldest surviving issue of Styryx. To Gavin fell the management of the Solomani Rim War (990 to 1002), already set into motion by his father. Born 946, proclaimed emperor in 989, died of natural causes in 1031.

Paulo III: Oldest issue of Gavin. Born 981, proclaimed emperor in 1031, died of natural causes in 1071.

Strephon: Oldest surviving issue of Paulo III. Current reigning Emperor. Born 1049, proclaimed emperor in 1071. During his reign, the Fourth Frontier War (1082 to 1084) erupted; clever public relations turned the matter to Strephon's advantage, although he actually had little to do with it. The long delay in communications with the front meant that his orders held little sway, and the armistice arrived almost as soon as the news of the war. The conflict, however, has been called the False War, and it resolved little of the continuing tension between the Zhodani and the Imperium.