SPACE OPERA:

STAR SECTOR ATLAS I

THE TERRAN SECTOR

STAR SECTOR MAPS

HISTORY OF THE SECTOR

66 PLANETS IN DETAIL

PLANETARY BACKGROUNDS

COMMERCIAL STARSHIP ROUTES

FOLD-OUT QUADRANT MAP

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Fantasy Games Unlimited, Inc.

P.O. BOX 182
ROSLYN, N.Y. 11576

For information contact Fantasy Games Unlimited Inc., P.O. Box 182, Roslyn, N.Y.

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A SOCIO–TECHNIC HISTORY

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EDITORIAL INTRODUCTION

The Terran StarSector is the first of many StarSector Atlases for use with **Space Opera.** Readers will note that this is a numbered atlas, which will denote atlases in this series. There will also be StarSector Atlases which are not numbered and are not from the same game universe. The un-numbered atlases will each be from the universe unique to the writer/designer of the atlas. Some stars that appear in this atlas may also appear in an un-numbered atlas as these would then be different campaigns and game universes.

Space Opera is a game of large scope and it is playable in a variety of campaign styles. Thus, an atlas can be from any given campaign as there is no **one** true way to play **Space Opera,** and each campaign will be different to meet the interests of the players in that campaign.

Future numbered StarSector Atlases will outline the home sectors of major races and nationalities from the original **Space Opera** universe. The fold-out Quadrant Chart will give readers an idea of what to expect as upcoming titles in this numbered series of atlases.

A SOCIOTECHNIC HISTORY OF THE UNITED FEDERATION OF PLANETS: Abstract of a Treatise by Sociohistorian Tal Maleena, Ac.Em. Kalevarra Senthedar Alari Telant, IRSOL Tavis Valinor N'Thrale. Translated, with Commentary, by Acadamarian Nathan B. Stewart, Faculty of Alien Studies, Ceta University, Ceta (Tau Ceti II)

INTRODUCTION

It is rare indeed that a race has the opportunity to view itself and the pattern of its evolution into a starfaring people through the eyes of a highly informed and dispassionate observer from an alien race. Acadamarian Emiritus Tal Maleena of the High Institute for Advanced Alien Studies of the IRSOL StarCity of Valinor N'Thrale studied the human race since A.D. 1952. His extensive and superbly detailed **Tara Alari Foedoras Korsaiuun Tovaris** is a masterpiece of analytical scholarship and contains much information hitherto lost to Terran historians. Some of Acadamarian Maleena's theories and conclusions may surprise and affront readers, but it should be noted that he speaks from a perspective of almost five centuries of observation of Terran culture. He has witnessed many events that are no more than mere legends to living Terrans.

The following abstract is a 1:2500 Telon condensation of the **Tara Alari**, using the Dawaguchi-Dupont Analytical Model to ensure accuracy of 0.99 per 10,000 words. All IRSOL dates and terminology have been translated into their closest Terran equivalents. Editorial comment is indicated by **italics**. Readers are referred to KR.207. M215.28 of the **Encyclopedia Galactica** for the complete text of Tal Maleena's works.

EARLY TERRAN SOCIODYNAMIC INSTABILITY

The essence of a Type V planetary multiculture is the extreme diversity in all areas of observable social interaction and institutional behaviors. At one point in the 20th century, Terra held more than 180 competing nations. Each representing regional ethno-racial, religious, cultural, political, and economic patterns of individual and group behavior which differed significantly from those of geographic neighbors. Even within a given nation-state, wide diversity in all sociodynamic factors could be readily distinguished. SocioTechnic analysis of the operant dynamics of this fragmented global social order yielded a consistent Klee Instability of 2.28 to 3.57 throughout the late 20th and all of the 21st century.

At the beginning of the 21st century, Terran population exceeded 8000 million, having doubled in the 49 years since IRSOL observation began. The high rate of population growth placed a severe strain upon available food, energy, industrial capacity, and natural resources of the planet.

Had Terra possessed a unified government characterisitic of Type VI emergent planetary cultures, it is certain that many of the difficulties encountered by Humanity in its transition to a spacefaring people would not have been so severe. However, a suicidal rivalry existed between the two powerful political-military groups in the industrialized nations, known as the Western Alliance and the SovWorld. These competing alliances had been locked in a mortal struggle for idealogical, economic, and political supremacy for some years prior to the arrival of the IRSOL in the Solarian StarSystem.

> **Acadamarian Maleena reviews the essential events in late 19th and 20th century history, tracing the development of Terran political and economic movements in this period. Readers interested in the details of this now revealed era of Terran history are referred to KR.207.M215.28/15 of the Encyclopedia Galactica. – N.B.S.**

At this time, Terra was in a Tech/5-6 mode of technological-industrial development. Weapon systems had attained thermonuclear and biochemical capability of destroying the planetary environment. But Terran socio-political evolution had not kept pace with technological advances, so the maturity was lacking to deal with the self-destructive impulses that continuously threatened to unleash forces able to annihilate all life on the planet.

The Western Alliance and the SovWorld nations emerged in a suicidal 'arms race' that consumed fully 20% of their total national production of goods and wealth by the late 20th century. Using entire Third World nations as pawns in their vaster struggle, they fomented numerous wars and revolutionary movements in the less developed regions to embarrass each other by any means possible. These adversaries repeatedly resorted to a policy known as 'brinksmanship,' and it became inevitable that they would lose control over the powerful sociodynamic forces they had unleashed.

Their unceasing propaganda campaigns to 'win the hearts and minds' of the peoples of the Third World, and their continual manipulation of the internal affairs of the undeveloped nations, both created numersous groups of social and political malcontents, oppressed minorities, and outright rebels who resorted to force to redress real and imagined grievances. Terrorism soon became a standard method for these groups to assert their own special interests. Total destabilization of the already precarious situation was never below 0.90 probability after 1975.

In the last part of the 20th century, an energy crisis developed as world petroleum supplied neared depletion. Third World World nations with extensive oil reserved extorted huge sums from the energy-hungry industrialized nations. But, at least they were to mount a massive effort to construct nuclear power complexes and develop synthetic oil plants. The very poor Third World nations were unable to meet the exorbitant cost of imported fuels, while their food production fell ever farther behind the crushing burden of uncontrolled population growth.

By the 1990s, the Western Alliance and the SovWorld were acquiring client states unable to endure the strain of providing for their own peoples. They virtually exchanged their sovereignty for economic aid and food. Yet, the planetary economy continued its decline as outmoded and unresponsive systems of credit and trade failed to adjust to existing conditions.

By 2005, the Klee Instability Index reached 4.00, with total societal collapse indicated on the close order of 15 years. The probability of Final War attained a steady 0.99.

Armed with this evidence, Chief SocioHistorian Vao Toraava made a formal recommendation to the High Council of Valinor N'Thrale for permission to intervene in Terran affairs. Immediate action was required to prevent the destruction of a promising race, and the Valinor Larai authorized Class II intervention. Engineers of the StarPatrol secretly installed planetary Xenon field generators at the Terran poles to blanket the planet with high-yield reaction damping screens. Meanwhile, Assistant SocioHistorian Tal Maleena was dispatched with an Alien Contacts Team to approach the North American physicist, Dr. Richard Sanderson, to provide him with the theory of the Xenon device. This mission was performed without incident, and Dr. Sanderson was psycho-chemically indoctrinated without his knowledge on April 21, 2005.

Withdrawing without detection, the IRSOL resumed observation of the events unfolding in Terran affairs.

> **Acadamarian Maleena's revelations explain several mysteries. Despite Terran folklore about contacts with aliens from flying saucers, which abounded in this period of history, Acadamarian Maleena is adamant that the IRSOL action on April 21, 2005 was the only genuine instance of an alien contact. However, about 0.0012% of the UFO sightings reported in the period 1943-2047 were observations of IRSOL craft. IRSOL Contact Ethics correspond to those of the Federation: There shall be no close contact with aboriginal and developing cultures to avoid racial ego-traumatization of ethnocentric societies unprepared to cope with the existence of beings from technologically advanced starcultures.
>
> **Dr. Sanderson's remarkable breakthrough in Force Field Physics and his invention of the first Xenon device late in 2005 was certainly a believable feat, for he was already working in that area of study. However, his almost miraculous intuitive grasp of the Alpha Field Equations and the quantum jump in theory they represent can now be fully explained – N.B.S.**

IRSOL choice of the Western Alliance nation of the NAF (North American Federation) to be the recipient of the Xenon device was not one made through emotional sympathy with the societal values

of the Alliance. Rather, SocioTechnic extrapolation of the consequences to Terran survival and evolution revealed that SovWorld possession of the Xenon device would bring a 0.86 probability of societal collapse by 2095, plus or minus 25 years. A choice amongst Western Alliance states brought a 0.91 probability of Terran evolution into a StarCulture by 2050, plus or minus 25 years. Since the NAF was the most influential member of the Alliance, it was given the Xenon field secret.

By 2008, every major industrial, military, and population center of the Alliance was under Xenon protection. At that moment, the IRSOL StarPatrol dismantled the planetary Xenon systems to permit a Terran solution to now unfold. Events occurred as predicted. The Alliance announced the existence of their Xenon defense systems and called upon the SovWorld to join in mutual disarmament and cooperation to establish a new order in the world. SovWorld reaction was one of disbelief, and deployment of its armed forces was ordered in anticipation of an Alliance 'trick.' Despite Alliance assurances, war became inevitable.

On June 28, 2008, the SovWorld fired 4900 missiles carrying 14,700 nuclear warheads in a 'pre-emptive strike' against the Alliance. Only 26 warheads detonared over unshielded targets. SovWorld resistance collapsed immediately as its leaders realized that they had no protection against Alliance nuclear weapons. Within one hour, the 'Wet Firecracker War' was over.

With the elimination of the bitter idealogical conflict that had so impeded development of a sane and coherent planetary union, World Government could be seriously contemplated. Realizing that poverty and famine in the Third World required instant attention, diplomats of the Alliance secured the agreement of the industrialized nations to subordinate some of their national interests to stabilize the world situation.

The leaders of 186 nations met in 2009 in Washington D.C. to receive the detailed proposals of the Alliance for the reshaping of Terra under the auspices of a United Planet government. First, all nations would begin total disarmament of their armed forces. Only small, lightly armed civic militias would be allowed. The only major armed force on the planet would be the UP Peace Force, comprised of units from the Western Alliance. War was declared illegal as a means of resolving international disputes. All armed rebellion and terrorist activities were also declared illegal. A UP Tribunal was established to hear complaints from dissident and oppressed groups so that reforms could be made to the policies and practices of the offending national governments.

For their part, the industrialized nations pledged to commit the 20% of their gross national products devoted to defense spending to a new goal: development of the Third World. Recognizing that the effectiveness of such aid would be compromised by unrestrained population growth, they also urged Third World nations to show responsibility by instituting birth control programs.

However, if the Third World entertained any expectations that it would use its huge majority to dominate the UP like it had the defunct United Nations, it was quickly disabused of the notion. Until a nation demonstrated that it had achieved a qualifying level of economic development, it would be granted only associate membership in the UP Assembly. Decisions would be reserved to those responsible for financing and carrying them out.

EARLY COLONIZATION OF THE SOLARIAN SYSTEM

The first Terran space probes and manned expeditions were modest efforts, but Terran technology quickly advanced to increasingly ambitious projects. By 2001, several military and scientific bases had been planted on Luna. Both the Alliance and the SovWorld maintained manned space stations in orbit around Terra. Unmanned probes had completed the preliminary survey of the Solarian System, and plans were laid for manned voyages.

As Terran space exploration began in earnest, the IRSOL prepared to depart the Asteroid Belt and the Solarian System. Detection was becoming more and more likely. However, SocioHistorian Maleena and a team of researchers were assigned to remain after the StarCity completed its mining operations in the Asteroid Belt and warped out for Algol.

In 2011, NAF **Mars Probe I** sent a coded message that a damaged and abandoned alien spacecraft had been found in orbit around Mars. The hulk was a Bug stardestroyer which had been severly mauled in 1969 by elements of the StarPatrol when it had entered the Solarian System on a long-range probe mission. The vessel had not been totally vaporized, although many systems were melted and fused beyond recognition. Enough clues remained to provide the Terrans with the hints needed to spur transition into Tech/7 technology within 50 years.

> **The alien starship represents the second intervention of the IRSOL in Terran evolution. The vessel could have been destroyed outright, but it was part of the IRSOL plan to permit Terran scientists and engineers to examine some of the basic systems and engineering, and so to deduce the workings of first the TISA sub-light drive and later the FTL warp-drive. Significantly, all advanced weapon systems were destroyed by the IRSOL prior to the Terran discovery. Terran society was judged to be far too unstable to be allowed knowledge of blaster and NovaGun armaments in the 21st century. – N.B.S.**

Analysis of the alien vessel produced a significant leap forward in all fields of Terran physical science. By 2025, the secret of the secondary drive systems of the vessel had been determined. The resulting Markheim-Hasagawa Phased Drive (the TISA Trans-Gravitic Interphased Sub-Light Anomaly Drive) proved to be so fast and economical that Terran exploration and colonization of the star system accelerated into a frenzy.

Even as these discoveries were being made, the NAF was also involved in the greatest engineering feat attempted by mankind to that time – construction of the huge L-5 colony proposed by the Terran visionary Gerald O'Neill some four decades earlier. The initial phase of the project was completed in 2015, a large Lunar mining complex to produce great quantities of material required for the 2 km diameter torus of the space colony. In 2028, the **L-5 Colony O'Neill** was completed. The benefits of the torrents of solar power microwaved down to Terra soon reduced the energy crisis. The Saharan Reclamation Project (2022-2028), for example, opened up more than 12 million hectares of land for irrigation with water distilled from the Mediterranean Sea by L-5 solar power. By 2040, 32% of all energy used on Terra was from L-5 powersats.

The first L-5 colony was a closed, fully self-sustainiing ecosystem capable of supporting some 12,000 scientists, technicians, and their families. The computerized and automated factories and smelter complexes orbiting nearby were able to process several million tons of Lunar ores per year, which were launched to the L-5 points by the Tycho linear-synchronous mass driver. The electronics and machine shops could produce many of the tools, machines, and equipment the colony required. They hydroponic farms produced all of the food required for the population of the L-5 community.

By 2100 there were 16 great cities in orbit between Terra and Luna, with populations totalling around 800,000. The colonies were largely self-sufficient once the minerals had been obtained from the Lunar mines. The L-5 factories were capable of fitting out new space colonies, powersats, ships of commerce and war, and virtually any other structure or product required for life in space.

With an increasingly advanced technology and multiple back-up systems that were continually updated to guard against any predictable contingency, the space communities became viable environments. The inhabitants came to view life in the L-5 colonies as natural, and many found their ties with the Mother Planet grew less with time. Their children became true sons and daughters of space, the first of many generations who would seek their lives among the stars.

The Lunar colonies expanded as well, growing to house a population of over 14 millions by 2100 as they provided the resources for the L-5 cities and food in abundance in their hydroponic tunnel farms.

The TISA drive enabled mankind to colonize the OutPlanets of the Solarian System. In 2029, the first domed colony was planted on Mars, and in the following year the mineral wealth of the Asteroid Belt was opened to the new mining interests based on Luna. By 2100, almost 200,000 were living in the domed cities on Ceres, Pallas, Juna, and Vesta, with another 70,000 in the outlying mining stations. The population of Mars neared two million.

In 2036, an ambitious terraforming project was initiated on Ganymede, the fourth moon of Jupiter. By 2059, that small world possessed a

breathable atmosphere and boasted a promising agricultural colony that rose to almost 4 million by 2100. Similar projects were later undertaken on Titan in the Saturn moons, and then on Callisto in the Jovian system. The vast power required for heat and atmospheric conversion came from batteries of large powersats similar to the types orbiting the L-5 colonies.

At the close of the 21st century, more than 20 million were living beyond Terra's atmosphere, and close to 9% of the planetary agricultural needs were supplied by space colonies. It was an auspicious beginning, and we of the IRSOL were proud and gratified that we had played our small part in preserving this race so that it could evolve into a higher plane of social evolution.

After 2047, IRSOL observation of Terran activities were made difficult by the volume of traffic in the Solarian System. Acadamarian Maleena's mission, therefore, withdrew to a considerable distance, relying on long-range sensor-scans and monitoring of Terran communications and media transmissions for much of its data. However, Terran satellites could be easily tapped, and as all computer and communications transmissions were satellite-routed, vast quantities of data were obtained. The complete record of this invaluable information about 21st century life is now on file in the Federation Archives, a last bequest from Acadamarian Maleena to the Terran People made upon his death in 2425. — N.B.S.

THE PURE EARTH MOVEMENT:
THE AMADATHARTHA PSYCHOSIS

Of all the observations and analyses made by Acadamarian Maleena, his treatment of the Pure Earth Movement alone reveals the biases of his own starculture. Nowhere else does he permit himself such scathing criticism and emotionalism. It is clear that the Amadathartha or Turning Inward is repulsive to the IRSOL, a self-inflicted sickness of the spirit that causes an individual to cling to a planetbound existence. That anyone could willingly reject the Taleel or Life of the Cosmos is sheer insanity to the IRSOL. This attitude can be observed in milder form in the rather contemptuous term Groundhogs which human starfarers often apply to planet dwellers who have not yet ventured into space, and who see no reason for ever doing so. — N.B.S.

Even as the Terrans took their first steps toward the colonization of their starsystem, the forces of reaction began to grow on Terra. By 2050, many Terran subscribed to the Pure Earth Movement. This perverted group of madmen was, to the last member, caught in the Amadathartha. They feared the Taleel and rejected it with a loathing that led them to deny the stars to others of their race.

The Pure Earthers were a fanatical brotherhood committed to solving all of the problems of their overcrowded planet. It must be said in their defense that they were, at first, motivated by high ideals and wished to better the lot of the more than 15 billions who populated Terra 2050. The programs to control population growth were not successful, and desperate measures were perhaps required. But instead of turning to the limitless abundance of the Universe, the Pure Earthers chose to rely on the ever more meager resources of their own planet.

As conditions became increasingly more difficult on Terra, with shortages and ever more severe rationing imposed on the people by the UP government, the Pure Earth Movement gained followers. Finally, in 2064, they gained a majority in the UP Assembly. From that point on, Terra was forced to turn aside from the stars, and it remained for the space colonies to carry on the drive of humanity to embrace the Taleel.

The Pure Earthers were incapable, philosophically and psychologically, of understanding that the only direction in which a technological race can continue to grow and prosper lies toward the stars. Theirs was an ancient argument, and the galaxy is littered by a host of dead and barren planets that attest to the falsehood of their shrill outcry: 'As long as there is poverty, disease, and injustice on our world, we cannot afford to dream of setting foot on distant planets. There are not enough resources as it is to accomplish all that must be done here. We must not waste our precious natural resources and wealth on mere pinpoints of light in the sky. We were born here on this world, and here we shall live.'

And there they were doomed to die! Sheer madness! The Taleel called to them, and they averted their eyes to the dirt! They would not unlock the gates of their planetary prison and step forth to fly amongst the stars, free in the joy of the Taleel. They faltered, and they fell in the Nar of the Great Testing. By their loss of will, they lost forever the opportunity to be one with the Cosmos. Thus, their breed was condemned to fade forgotten into the dust of their planet.

Fortunately for humanity, there were those who were strong in the Taleel, and their will to gain the stars prevailed. But — oh! the cost that was paid by the pitiful billions of Terra.

After this outburs, which should be regarded as a Testament of IRSOL faith, Acadamarian Maleena returns to his cutomary analytical dispassion. The intensity of his personal remarks remained with him to his death, as the Editor can attest from his interviews with the Acadamarian in 2415. The rise of the Pure Earth Movement stood as a great blow to his academic pride, for he had failed to guage the magnitude of the Amadathartha psychosis that came to grip the masses of humanity on crowded Terra. He never forgave himself for the errors in his Socio-Technic predictions which caused him to overlook the probability of such a development in human affairs. — N.B.S.

The social engineering programs instituted by the Pure Earthers imposed an increasingly repressive socialism that eventually dominated every facet of Terran life by 2100. Paternalistic and inflexible, the Pure Earth administration of the UP government regarded itself as heaven-sent and uniquely fitted to decide what was best for everyone. They crushed individual thought and initiative, punishing nonconformity with a savagery that belied their avowed commitment to humanitarian principles. The productive members of society were called upon to make greater and still greater efforts to provide for their disadvantaged, unproductive brothers.

There were many disadvantaged people to provide for, as the vast majority of Terrans had not the intelligence, skills, and education to fit into the highly specialized and technological industries of the Post-Industrial Age. The simple fact was that 80% of the population was untrainable and unemployable.

Every Terran citizen was granted entitlement to a Basic Share of the economic wealth of the planet. Thus, the most unproductive received an income sufficient to sustain him. Those actually drafted or born into the work force or the administration were awarded Preferred Shares for their contributions to the public good. Vocations became largely inherited, and social mobility disappeared by 2100 as a rigid class structure evolved. With social responsibility — meaning authority in the bureaucratic structure of government, industry, or the professions — came privilege and power. But rank and power were hereditary and depended no at all on personal merit and competence.

The masses or 'Proles' were controlled and pacified by a well orchestrated program of propaganda and bread and circus. Government psycho-sociologists manipulated public attitudes and opinions through the immensely popular mass media Tri-Vee. Euphorics and tranquilizing drugs were dispensed freely to keep the Proles from considering the warren-like Community Urban Complexes or ComUrbs that came to cover tens of thousands of square kilometers of the planetary surface. Spectacles of immense proportions were staged to impress them. Always were they praised for their non-existent virtues, and shortages were invariably blamed on the social irresponsibility of shirkers and social malcontents amongst the working forces. As the general population spiralled down toward a brutish level, ever more spectacular and violent diversions were invented to entertain them.

What was worse, they were allowed to breed. Brutish parents raised their children in ignorance, perpetuating and increasing the unproductive, drugged, moronic masses who consumed the substance of Terra. Thus, the UP government was forced to import raw materials and food from the OutPlanets of the Solarian System to shore up the image of the All-Benevolent, All-Providing, Government. But basic resources were in chronically precarious supply, and the best of what

was available went to the privileged leadership classes. This fact was not overlooked by the Militant Dissidents who began to arise among the lower echelons of the productive classes.

The Militant Dissidents tended to come from the lowest ranks of government, the industrial/agricultural complex, and the professional and service sector. They were reasonably intelligent, educated, and often law-abiding individuals deserous of improving conditions. However, to do so, they had to challenge the authority of the incompetent leadership classes. But the leaders soon realized that Luna provided an especially safe place to exile troublemakers who dared to voice criticism of the new order. By 2075, transportation was a standard penalty for any form of political agitation. By 2100, almost 6 million political offenders, common criminals, and loyal producers who had only attempted to convince their superiors that some policies needed revision had been sentenced to life exile on Luna.

REBELLION: THE HIGH REPUBLIC

Terran rule of the space colonies was performed with a heavy hand once the Pure Earthers came to power. The colonies were regarded as an expensive luxury borne on the backs of the suffering peoples of Terra. The fact was ignored that all of the L-5 colonies, the Lunar colonies, and the new colonies on Ganymede, Callisto, Titan, and Mars were self-supporting and also exported substantial quantities of food and resources to Terra. In their fear and hatred of space and the freedom it promised, the narrow men of the Pure Earth leadership waged a vicious propaganda war against the colonies to win favor from the masses at home on Terra.

Relations between Terra and the colonies became strained. If the typical Groundhog resented and reviled the colonies, the colonials harbored little love for Pure Earthist Terra. Many colonials were political exiles. Others were fortunate individuals who had been able to emigrate and thus made their escape from the worst features of restrictive Terran society. There were also many who simply heard the siren lure of the High Frontier. Those were the most courageous and adventuresome of all, among the most capable men and women that the race had to offer.

Space gave a person room to grow, unhindered by mindless and officious prohibitions, bureaucratic ret tape, and petty restrictions that were typical of daily Terran life. Discipline was self-imposed for strictly functional reasons. Space dwellers instinctively recognized that any irresponsible and careless behavior endangered everyone. Those who did not understand this fact of life soon died. Thus, the colonials became bound together by the threat of a common enemy — the menace of space.

The colonials had little patience with the self-important little men sent up from Terra to govern them. They laughed at the grandiose and often hypocritical social development programs of the Pure Earthers, which sacrificed individual rights to their narrow vision of the greater good. They nurtured deep and bitter resentment toward policies which bled away their hard won surpluses at prices that constituted robbery, while the government berated them for failing in their duty to meet ever higher production quotas and for complaining about the outrageously exorbitant price charged for Terran goods. It was with outraged feelings that the colonials saw the Lunar Administration formed in 2075 to oversee the implementation of the correctional system for transportees exiled from Terra. For the Administration threatened the rights of free citizens of Luna as well.

In 2068, the Lunar Administration evolved a plan to turn the hydroponics farms of Luna into high-yield complexes to grow food for the hungry billions of Terra. By 2080, life of Luna was so circumscribed by unfair laws and regulations that it was no more than a 21st century Botany Bay. By 2090, free citizens were reduced to mere clients of the Lunar Administration, bound to produce and sell grain and produce to the Administration at prices set by the Administration.

The L-5 colonies fared lettle better. Terran bureaucrats replaced the competent leaders previously appointed from the best men available in the colonies. These administrators hated the duty and ruled the L-5 communities with ignorance of conditions to such an extent that they often threatened the very safety of the colonies. The same was true in the domed cities of Mars, whose industries were converted to virtual slave labor camps.

Only on the OutPlanets of the Jovian and Saturn colonies and in the mining camps of the Asteroid Belt was there a degree of freedom unparalleled in the rest of the Solarian System. Land was available on the terraformed moons, while the Belt was wide, so one could move far enough away from the few centers under the direct administration of the colonial bureaucrats from Terra. Even in these regions the sheer unfairness of Terran policies created smoldering fury in colonial hearts.

Rebellion was inevitable. It cam in 2136, with the institution of the infamous Air Tax on Luna and in the other domed colonies. Transportees, who now numbered almost 15 million, and free citizens of Luna alike, arose to overpower the Lunar Governors and the Peace Keepers based at Tycho City. When a large strikeforce of Peace Keepers was gathered on Terra to invade Luna to punish the rebels, the **L-5 Colony Alliance** refused to provide the required shipping, spaced its Terran Governor and his henchmen, and joined the revolt. Alliance was quickly followed by the other L-5 colonies.

As word of the revolt spread, the Martian colonists rose up to lynch their Terran masters. The OutPlanets followed in turn. By August of 2136, no vestige of Pure Earther influence remained outside the Terran atmosphere. Representatives of the colonies met on September 5, 2136, to declare the High Republic from the Assembly Hall in Tycho City.

Terra discovered that it was unable to wage war against the High Republic. After 2045, all spacecraft were constructed in the L-5 colonies. After the Pure Earth rise to power, Terran involvement in the operation of spacecraft declined and colonial crews became the rule. By 2100, the Turning Inward had deprived Terra of the technologies and skills required to construct and man spacecraft on the planet itself. Generations of closed thinking and official stupidity had so stifled Terran science and channeled it into socially useful pursuits that aerospace science and technology on 22nd century Terra scarcely equalled that possessed in the 1980s.

By the Treaty of Tycho, 2137, Terra grudgingly agreed to recognize the new sovereignty of the High Republic. Colonists would be provided in return for the restoration of vital food and resource shipments to the crowded planet. The 'volunteers' sent to the colonies were often the worst of the incorrigibles the planetary government could find — the hard cases who refused to conform to the perfect world the Pure Earthers believed they were fashioning. The High Republic accepted the enforced immigrants under protest, demanding that only legitimate volunteers be sent. Secretly, there was much satisfaction. The New Chums were just the kind of people the High Republic was seeking. The cast-offs of Terra had the very traits which marked the High Republic itself — independence of spirit, personal courage, questioning minds, and an unquenchable determination to resist tyranny of any kind.

The Terran government also attempted to introduce spies into the colonies. Suffice it to say that space is a very unforgiving environment, and numerous 'accidents' occured among the inexperienced.

THE HIGH FRONTIER: THE EXODUS

In 2048, Ortega, Balckwell, and Charenkov discovered the principle of the hyper-warp drive, and faster-than-light travel becam possible. On May 23 of that year, we of the IRSOL celebrated the birth of a new star race and sent word to our City so that all of the people could share in the joy of such a momentous event. For by now, we had begun to regard the Terrans as our 'children' and they had taken their first halting steps to knowing the Taleel.

In 2056, a 100,000t TISA vessel had been converted into the first of the **Pathfinders.** The engines were woefully primitive, and the round trip to Alpha Centauri required almost two years. In the interval, three more Pathfinders were fitted out and were dispatched on deep space exploration missions.

The FTL technology of Humanity developed quickly after that. By 2100, there were 22 of the huge 500,000t **Connestoga** class colonization ships in regular service carrying interstellar colonists to Alpha Centauri, Vega, Sirius, Procyon, and other near stars with habitable planets. Voyage times were greatly reduced as the space colonies began to develop a strong Tech/7 industrial and technical capacity. The Great Exodus had begun.

The interstellar colonies planted in the period of the Exodus (2065-2190) fall into five distinct types:

The Penal Colonies were established by the Free Earth government of

Terra between 2075 and 2136. Some of Terra's worst political dissidents and incorrigible criminals (including citizens guilty of such infractions as hoarding, wasting, and black marketeering, as well as murderers, arsonists, rapists and thieves) were transported to marginal Class B and C worlds to develop mines or exotic resources. Many of these colonies failed because of the harsh conditions prevailing on the planetary surfaces, but some survived in spite of the minimal support received from Terra and then virtual abandonment after 2136. Everything about this despicable colonization program was marginal. Colonists were shipped in primitive cyrogenic capsules with a 20% failure rate. Equipment and supplies were kept to an economically bare minimum. No thought was given to providing any balance in skills that would be needed on the new worlds. Contact with most was lost after the Revolt in 2136, but a number were later found and incorporated into the Terran Union. A few turned to sinister activities like space piracy and colony raiding, apparently obtaining their first starships by seizing unsuspecting Free Traders. Many devolved into savagery.

The Dissident Colonies were established by restive nationalistic groups on Terra whose political and cultural values clashed with those of the dominant Free Earth Movement. To rid itself of these potential troublemakers, the UP government allowed immigration particularly from WestEurope and the SovWorld. Most of the WestEurope colonists settled in the Azuriach Cluster, which became the Azuriach Imperium in 2178. SovWorld colonists largely settled in the region which became the Galactic Peoples Republic in 2159. These two groups were to give the near galaxy around Terra many difficulties in later years.

The Lost Colonies were established by religious and ethnic minorities of Terra who had suffered restriction or repression at the hands of the Free Earth government and wished to practice their beliefs in peace. Provided they could finance the expedition themselves, and paying confiscatory premiums to the UP government for the privilege of emigrating, they chartered or bought decrepit starships and launched themselves toward what they hoped would be the new Jerusalem. Many simply disappeared. Others found new worlds and settled them. Few were able to maintain industrialized technologies and devolved into Tech/1-4 pre-industrial societies. By 2190, over 600 such expeditions had departed Terra, sprinkling humanity far into the galaxy. In future years, these enclaves became among the first customers of the Free Traders of the Mercantile League, who jealously guarded their locations from their competitors to protect their monopolies.

The Sponsored Colonies were settled under the direct support of the High Republic and its successor, the Union of Planets (2138 onward). Carefully selected teams of volunteers were chosen to establish Base Colonies on premium Class A Earth-Type planets. When preparations were completed, waves of colonists were dispatched according to a long-range development plan. Each colony thus became a strong and viable planetary-state, with a solid balance of scientific, technical, professional, agricultural, military, and administrative expertise provided to insure the maximum chance of success. Contact was maintained between them and the Solarian System through a regular system of commercial shipping. The moment a sponsored colony became self-sufficient, it was admitted to the growing confederation that evolved into the Union of Planets by 2145. These worlds were the logical extension of the mainsteam of Solarian starculture, and they remained steadfastly loyal to the federal structures that developed over the centuries.

The Free Colonies were established over the period 2140-2190 by special interest groups in the so-called Mercantilist Dispersion. Backed by wealthy individuals and corporations of the High Republic seeking to expand their commercial activities to the stars, the Free Colonies were set up as business operations. Often blocs of companies combined to finance the colonies, as the cost of establishing a viable, productive colony of this type was considerable. A number became the nucleii for the Mercantile League, founded in 2190, although others remained loyal to the Union of Planets.

It is estimated that over 1000 planets were colonized in the 125 years of the Exodus, with more than 485,000,000 people leaving the Solarian System to find new homes on distant worlds.

In all that time, the human race did not meet iwth a single advanced sentient race, for this arm of the galaxy had been denuded of high level starcultures some 9000 years earlier by the great series of wars between the mighty Galactic Empires of the Starkaad and the Korellans. The whole region constituted a huge Neutral Zone between the still vast remnants of these two starcultures, a void to be filled by the young races now evolving to starfaring status. It would not be until 2232 that contact would be made with an alien race of interstellar stature.

THE CRAZY YEARS:
SOCIODYNAMIC COLLAPSE ON TERRA

By 2125, Terra was entering the second phase of its inevitable decline. The population had exceeded 20 billions and was beginning to accelerate in growth. The average intelligence quotient was 84, planetary literacy had fallen to 14% of the population, and less than 10% were productively employed in the automated factories and hydroponics complexes. The masses contributed nothing to Terran economy or society, and industrial and agricultural facilities were strained to the failure point as the numbers of technicians required to maintain and operate them continued to fall.

Those who had the intelligence to perceive the impending catastrophe chose emigration to the High Republic and the stars. But in 2138, the UP government banned emigration of all essential personnel. Forced to remain on a crowded and slowly dying planet choked by pollution and staggered by massive shortages of food, power, raw resources, and manufactured goods of all types, such men and women came to bitterly resent the Pure Earth philosophy and all it stood for.

The Covenanters arose among the lower echelon members of the technocracy and bureaucratic classes. Because the rigidly hereditary nature of the stratified Terran social and political structure barred them from any chance of advancement to posts from which they might be able to avert the worst of the coming disaster, they felt hopeless and frustrated. They also recognized that they were partially responsible for the dead end to which Terran society had come. For they were members of the establishment, many of them were former Pure Earthers.

Cells of Covenanters formed, and plans were laid to fortify and arm vital industrial and agricultural complexes safely removed from the population centers of the ComUrbs. There was no chance of stopping the general collapse of society. All that could reasonably be done was to provide for a few enclaves of sanity and civilization in a world that would go mad in its last days. Since some Brothers were members of the government bureaucracy and lower management levels of the industrial/agricultural sectors of Terran society, they were able to arrange for the needed transfers of personnel and diversions of equipment and supplies to the designated enclaves. Such tampering with the operations of the vast organization that constituted the Terran bureaucracy went entirely unnoticed.

Even as the Covenanters prepared their refuges and moved their people to places of safety, a new and destructive religious cult sprang up to occupy the minds of the ignorant masses. Indeed, the Creationist cult was the largest single factor to spur the growth of the Covenantist movement among the techno-bureaucratic classes. For it marked the end of sanity and any possibility of forestalling or averting palnet-wide devolution.

Thaddeus D. Struther, the self-styled Prophet of Creationism, proclaimed that the Milennium promised by the Pure Earthers was at hand. If the people of Terra would only renounce entirely the sacrilege of trespassing in the Lord's High Kingdom, He would rain his bounty down upon the needy of Terra. He would perform His miracles, and manna would fall from the skies to feed everyone. The factories would pour out an abundance of goods without end. No one would want for anything. But, the most terrifying aspect of his illogical babble was a call to cease all birth control measures. The Lord would provide for all his children, Struther said, and the ignorant masses believed him. So did the inbred fools who controlled Terra, and they withdrew all restrictions on parentage in 2146.

As intelligent men realized that the doom was upon them, a new and massive wave of emigration ensued between 2140 and 2165. While prevented from emigrating themselves, for most were in the essential services, Covenanters assisted their fellows to escape to the stars. If they could not save their planet, and likely not even themselves, they could try to save the race.

In 2165, Terran population approached 35 billions, and the instability index reached crisis levels. All means of production and distribution no longer could maintain the supply of food, power, and vital services.

As the systems faltered, then collapsed completely in ComUrb after ComUrb, panic and riot raged through the darkened warrens as the Proles were gripped by superstitious fear. Blaming the technos for sabotaging the Coming of the Milennium, the masses ran amok. The technical specialists, who alone could repair the damaged life support systems, were torn apart, vital facilities were smashed and burned, and all sanitation, medical and power services were lost. As hunger turned to famine, the mobs turned on each other, and cannibalism broke out in the megacities. Plagues soon followed.

Ten years later, less than 900 million humans remained alive on Terra.

RENAISSANCE:
THE RISE OF SOCIO–TECHNIC SOCIETY ON TERRA

The shocked space communities placed Terra under strict quarantine in 2167 to prevent the virulent diseases loosed upon the planet from ravaging their own environments.

Civilization still existed in the armed enclaves of the Covenant. Able to protect their production complexes and hydroponic facilities from the crazed Proles, the Covenanters' survival was guaranteed. Their medical teams also prevented the plagues from seriously damaging the personnel of the enclaves and their families.

However, most of the planet contained dazed survivors who quickly devolved to barbarism and even more primitive levels of existence. Urban survivors were rarely more than small family or clan groups reduced to animal savagery. The rural barbarians tended to appear more organized, developing nomadic tribal cultures based on hunting or herding.

In the decades following the collapse, the Terran ecosphere slowly healed itself from the multiple ravages of over-exploitation, pollution, and general destruction of the natural environment. Vegetation and animals began to reclaim the desolate ruins that dotted the countryside.

The planetary population stabilized at one billion, but finally reached five thimes that by 2550. The Covenant enclaves maintained contact with each other, and a plan was formulated to restore the devolved barbarians of the hinterland to a civilized level of existence. To this end, the enclaves used intensive education to prepare their own people to act as cadres to lead their lost breathren into the fold.

At first, the barbarian tribes living around the fortified enclaves were induced with bribes and arguments to send some of their children to the enclave schools. These became the first converts to the new order, and they eagerly returned to the countryside to teach their tribesmen. In some instances the tribes reacted violently and lynched the troublemakers, necessitating punitive expeditions from the enclaves. Soon, it was clear that the Teachers were not to be harmed without inviting punishment.

As the regions bordering the enclaves were won over, operations were extended to the more distant tribal areas. Special contact teams were formed to reconnoiter the barbarians, typically disguised as shamen, seers, and visiting hunters. The brightest candidates were marked for deep hypnosis to overcome their barbarian conditioning. The contact teams then suggested new ideas and attitudes which were accepted by the sensitized individuals judged to be the most influential members of their tribal groups. In time, contact with the enclaves was opened and re-education of the tribes was begun in earnest.

This process of reconstruction lasted for several centuries. Meanwhile, the enclaves of civilization themselves re-entered the mainstream of human culture. In 2238, the OutPlanets of the Solarian System reopened relations with Terra, and five years later Terra was admitted to the High Republic as a full member. Thus it was that, even as Terra contained vast tracts of wilderland populated by savage tribesmen, it also was part of an expanding starculture characterized by high technology and advanced science.

THE COVENANT

The Covenantist Movement was born out of a realization that the Pure Earth philosophy had totally failed. Indeed, the Brothers of the Covenant had recognized that they were the inheritors and direct intellectual descendants of those who had set Terra on its destructive course. Thus, they accepted on a personal level, their own responsibility for the consequences. As Terran society collapsed around them, they learned to detest the simplistic belief that social engineeriing could ever produce a society worth supporting. No form of manipulation of individuals and masses of people was justified. So they aimed at developing a responsible social ethic that could guide each citizen to act in a constructive and respectful manner toward his fellows.

Founded on the principle that each and every citizen was personally and totally responsible for all his acts, the Covenant established a binding social contract between each citizen and every other citizen. A citizen was sovereign unto himself, free to act responsibly in his own interest. It could not be otherwise, for it was recognized that each sentient being was able to act in any manner he chose before others could move to prevent it. The only safeguard against deliberate wrongdoing and infringement of the rights of others was the personal conscience.

The Covenant held that each citizen was free. It also held that each citizen was also free to be called to account for actions of a nature harmful to the rights of any other citizen. There could be no hiding behind position in society, no protection afforded to institutional authority, no appeals to considerations of necessity or expediency. As members of a highly organized and repressive bureaucratic system themselves, the Covenantists knew the danger of allowing men to justify their personal conduct in terms of their administrative duties. There would be no more of that. Either a citizen lived as a sentient being in society with other sentient beings, or he was a rabid beast unfit to associate with reasonable beings. The choice was freely his: Accept the Covenant, respect others, and enjoy the benefits of a society of reasonable men – or choose exile.

The Covenant protected only those who accepted and lived by the Covenant. Deny the Covenant, and those joined in the Covenant would cast you out.

Between 2100 and 2185, Covenantist philosophers wrestled with the many ethical difficulties inherent in the code of conduct they were proposing. It was clear that this was a most idealistic philosophy. It could easily be perverted to demand conformity, oppressing those who exercised the very freedom granted by the Covenant if they offended the majority.

Tolerance of difference thus became the prime tenet of Covenantist thinking. A code of social conduct was evolved which disapproved of ethnocentric and class-oriented thinking. To assist the average man to analyze situations requiring ethical conduct, the Science of Ethical Logic was developed. All citizens were required to acquire proficiency in this logical discipline. For, in a society of individualists committed to sustaining a social order in which no one would ever again have the right to impose his unquestioned will on others, belief in the intrinsic rightness of ethically responsible behavior had to be supported by a means of arriving at the truth.

As the enclaves refined their educational procedures, most citizens became multi-lingual. Faced with uniting a fractured global culture, everyone was encouraged to acquire an understanding and respect for ethnic, cultural, and linguistic differences. Respect for other customs was made the highest form of etiquette. As this program developed, a salutary discovery was made. The new forms of immersion learning did not involve translation of one language into another. Rather, thinking was done in the new language alone as one used it. Multilingual persons trained in this way soon found they were able to enter into the mental set of the new language. Thus, they could comprehend attitudes and values embodied in that language. To use an ancient Terran saying, it became possible to walk in another's shoes and see the world as he saw it.

The Covenantists evolved a truly admirable ethic. Tolerance of cultural differences would be practiced until understanding could be achieved. When dealing with strangers, one should follow the old truth: When in Korelia, it is wise to do as the Korelians. To show or even think that one culture or race was in any way superior to any other was held to be the depth of intellectual dishonesty, ethical turpitude, and uncivilized behavior. This fundamental belief explains the remarkable success of the enclave contact teams during the reconstruction and reunification of Terra. In later years, it made Terran personnel the most effective first contact specialists of all humans in the galaxy.

Using the Telon Socio-Technic Mathematics, the Terran Covenantists

also devised the first of the Tests. These Tests were given to all prospective political leaders and high-level bureaucratic candidates to determine their ethical conduct indices, and therefore, their fitness to represent free individuals in a free society. Over the years, the Tests were refined until they yielded the same high levels of dependability as those employed by the IRSOL to identify those who should take command when required. By 2401, no Terran leader was allowed to exercise great authority over his fellows unless he had demonstrated that he possessed the tolerance, the stability of personality, and the skill to make ethical decisions which would respect the rights of those over whom he held power.

**Acadamarian Maleena is characteristically reticient about the monumental part he personally played in the rise of Terra to interstellar prominence as an ethical and political leader of the mass of humanity. On November 12, 2178, Maleena landed his ship at the industrial enclave of Teledar II and initiated the first contact the human race had experienced with a very advanced sentient race. His timely intervention led to the development of the ethical and mathematical concepts which resulted in the evolution of Terra into a mature and flexible socio-political system.

**Acadamarian Maleena also ignores entirely the detailed instructions and assistance which his starship personnel provided enclave scientists and technicians with respect to advanced power systems and circuitry, TISA sub-light drive systems, and FTL WarpDrive engines. This theoretical and technical assistance permitted Terra to reach for the stars once more, independent of all outside political forces.

**The IRSOL intervention is clearly one of the most important turning points in Terran history. Yet only nine pages of comment are provided by Acadamarian Maleena on the subject, most of which is mathematical anblysis of the rate of acceleration which the intervention produced in Terran technological development. It is, of course, true that the Acadamarian's conclusion that Terra would have evolved the Covenantist ethical modes in any event, but the effects of his assistance cannot be minimized. At least 300 years would have been required to accomplish what was done in a matter of nine months. This, in itself, had profound effects on the course of all human history in the near galaxy.

**It is only now, some years after Acadamarian Maleena's death, that other facts have come to ligth. Maleena's own Socio-Technic predictions of the full effects of his intervention included much broader data concerning events in the colony worlds and on those of races inimical to humanity — and the IRSOL as well. Beyond even these local races, his analyses took into account developments in the vaster interstellar Empires, with which the Federation of Planets in only now coming into contact and conflict. Rapid evolution of Terra proved important to some as yet unknown IRSOL plan to foster the development of the Federation and to bring in the races of the MekPurr, Blarad, and Rauwoof starcultures, as well as those more humanoid races of the near galaxy. In retrospect, Acadamarian Maleena appears to have projected the need for a common alliance against the sinister forces marshalling beyond our frontiers to impose their imperial domination over our peoples and worlds, and those projections were formulated almost four centuries ago! — N.B.S.

THE FRAGMENTATION OF THE TERRAN STARCOLONIES

Even before Terra collapsed, there was little sense of unity among the far-flung colonies beyond the Solarian System.

The many dissident groups had all departed Terra with an intention to form their own versions of the perfect society. The minority groups of the Lost Colonies scattered in all directions, often voyaging many hundreds and even thousands of light years from Terra. Some attempted to maintain contact with the other colonies and with the Mother Planet, usually to continue trade or to obtain needed supplies and equipment, but contact was lost at one point or another in time. Others desired to sever all ties with the rest of humanity and simply disappeared into the vastness of the galaxy.

The Galactic Peoples Republic was founded in 2159 by the 27 worlds that were settled from the SovWorld during the Exodus. Unlike the minority dissidents, there never was an intention to sever the Terran connection entirely. Rather, the SovWorld leaders hoped to establish a new base of power from which their long-range goals of dominating the human race under a communistic system could be pursued. However, it was well over a century since the planting of the first colony of Lenin III in 2083 that the G.P.R. was in an industrial and military position to implement an imperialist policy.

The Azuriach Cluster was settled by WestEurope (and South American) dissidents for much the same reasons as the G.P.R. In 2178, the 25 worlds formed the Azuriach Common Market of Worlds, which in turn evolved into the Azuriach Imperium by 2210. An unexplained anomaly was that most of the financing for this group of colonies came from South America.

The Free Colonies again developed into a loose grouping independent of Terra, which resembled the city-states of the ancient Terran Hanseatic League. Linked largely by trading considerations, the 32 Free Worlds eventually formed the Mercantile League of Planets in 2190.

By the 23rd century, the G.P.R., the Azuriach Imperium, and the Mercantile League were all entering into an expansionist period, while the High Republic remained more or less static. The new human starcultures aimed at increasing the number of planets under their control or influence, but for differing reasons. The G.P.R. was gripped by an ideological fervor to bring the Truth of the Marxist system to all worlds, as well as a need to develop a sound resource base upon which a military-industrial complex could be founded. The Azuriach Imperium had similar aims, but a more sinister element intruded in the form of an extreme xenophobia which led to the genocide of entire races of non-humans encountered by Imperial interstellar survey vessels seeking the Lost Colonies. As for the Mercantile League, new markets were sought. The Lost Colonies again became prized worlds, but non-human races were also contacted. Each League World staked out its claim over such worlds and defended its trade monopoly against all competitors.

The Sponsored Colonies of the High Republic always maintained contact with each other, but no concerted efforts were made to develop any form of close political union, unlike the G.P.R. and Azuriach Imperium. Concerned with establishing their own planetary economies, and provided with ready markets with the other Sponsored Colonies, no expansionist pressures developed throughout the 22nd century.

Thus, the human race was fragmented into at least four large groups, and a multitude of tiny single-planet sub-cultures isolated from the rest. This fragmentation contained the seeds of interstellar conflict.

THE TERRAN UNION OF PLANETS (2275—2500)

In the years between 2178 and 2243, Terran society and technology underwent rapid and dramatic evolution. Some of the socio-political events have been described. But of all these, it was the concentration of the Covenantists upon attaining high levels of education amongst the people which had the most profound effects. By the time Terra was admitted to the High Republic in 2243, its technology was fully the equal of that of the OutPlanets.

By 2275, Terran expertise began to outstrip the others, and continued emphasis upon education had resulted in a population with a level of education and technical training unparalleled in the rest of humanity. In 2275, the OutPlanet communities of the Solarian System joined with Terra to form the tiny Union of Planets. The Terran Union never formed the intention to found an interstellar empire. But the reputation of Terran culture, government, diplomacy, and industrial-technological competence and production capacity soon established the Union as the leader of the High Republic formed by the old Sponsored Colonies and the Solarian System.

In 2289 the Congress of the Republic agreed to a new constitution, based on Covenant principles recognizing the right of sentient beings of all races and the sovereign rights of the people of each planet to exercise full control over their internal affairs. Under the moral example of Terra, which again became revered by many as the Mother Planet of the human race, the Republic achieved high standards of conduct toward indigenous alien races. The Contact Service was established in 2293 to safeguard aboriginal and developing peoples from cultural shock and the often ruthless exploitation of some members of the

technologically more advanced starcultures. This policy increasingly brought the Republic into friction with the economic imperialism of the Mercantile League and the outright political imperialism of the G.P.R. and the Azuriach Imperium. The name of Terra became synonomous with championship of the oppressed minorities and races of the near galaxy, and anathema to the exploitationists and imperialtists of the other human starcultures.

Interstellar war became inevitable. Not only contact with inimical alien races like the Bugs, the Klackons, and the Ranan Horde, but conflict with the starcultures settled from Terra itself forced the Republic to defend itself. But it was populous Terra, with her great industrial capacity and technological supremacy, which had developed the mass of the powerful space and ground forces needed to protect the Republic and the many planetary protectorates under the watchful eye of the Union Contact Service. In the 225 years of the Terran Union, the courage and fighting skill of the elite Union Guard became legendary.

All this is not to minimize the contributions of the 59 other planets of the High Republic, for they too had a major part to play in the history of the starculture. But Terra alone surpassed their combined populations and industrial capacity. Thus, it was one starsystem alone that stands out as the undoubted leader of the mainstream in human evolution into a major starculture, and the enemies of the Republic entertained no doubt as to who the real enemy was — Terra and the Terran Union of the Solarian Planets alone. It was the bastion of Civilization, the champion and the arsenal of free peoples everywhere. Alone, it could stand against all of its enemies combined.

But Terra acquired staunch allies. Not only other human-inhabited worlds appealed to the Terran Union for assistance and support, but numerous alien races as well. The Rauwoof Worlds, caught between the warring G.P.R. and the Azuriach Imperium, became 'friends and valued allies' of Terra in 2316. The Lords of the MekPurr, hard pressed in the terrible Bug invasions, discovered that not all humans were vicious pelt-hunters when the great BattleFleets of the Guard arrived to relieve Alcyone V in 2328. And in 2395, the embattled StarKingdom of the Blarad welcomed Terran support when the crack squadrons of the Imperial Azuriach StarNavy had shattered the Royal StarFleet in the Battles of Deneb. There were many other minor races, humanoid and pithecine, and others with starkly alien shapes and cultures, who all knew the strength of the Terran Union was arrayed in their defense.

These things we of the IRSOL witnessed.

THE UNITED FEDERATION OF PLANETS

On January 1, 2501, the 26th century began with the formation of the United Federation of Planets, an interstellar nation which incorporated the Terran Union of Planets, the High Republic, and a number of non-human starcultures who had been allied with the Terran Union in the century of conflict which had just passed. Representatives of 378 worlds met in the Chamber of Deputies in NuYork Complex on Terra to approve the Constitution of the Federation. Nineteen different races, comprising almost 14 billion sentient beings, were represented at this august gathering.

On that day, I, Tal Maleena of the IRSOL, set aside my sacred trust of chronicling the birth of a mature starculture, secure in the knowledge that there are others more qualified to carry on my work.

ENCYCLOPEDIA GALACTICA
KR. 801.S.326.601
TERRAN EDITION †%%)

TAL MALEENA (1873-2576, Terran Calendar): IRSOL Socio-Historian, born citizen of IRSOL StarCity Valinor N'Thrale of High Councillor Mara Vor Tinala and Sar Maleena, Rear Admiral, IRSOL StarPatrol. Studied at Kalevarra Senthedar Alari Telant of Valinor N'Thrale 1903-1936, and graduated summa cum laude with the highest scores recorded in Socio-Synamic Philosophy and Ethical Logic since the epoch of Alad Narrari (c.53,150 B.B.). Undertook post-graduate studies 1937-1947 under the direction of Vao Toraava, Ac.Em.. Awarded title of Acadamarian in 1947. Assistant SocioHistorian during Terran Project, 1947-2023. Terran Project Chief SocioHistorian 2024-2501. Acclaimed unanimously to the High Council of Valinor N'Thrale in 2525. Supreme Councillor of that StarCity from 2526 to 2539. Deceased in 2539.

Preliminary prenatal genescan revealed that Foetus MTS.219.384BV8A (to be named Tal Maleena Vi Tinala) exhibited Level X psionic talent, and primary tutelage was commenced 90 days prior to predicted birth date under Master Adept Nors Trelari Vi Tunal. Tal Maleena evidenced remarkable capacities for the Arts of Telurgy and Self-Awareness and attained Grand Mastry at his maturity in 1904....

....In 1947, Maleena's treatise on the current status of galactic politico-dynamics, Di Stavanara Tregala Gesept, created a stir in IRSOL Socio-Technic circles. Predicting that the Starkaad Empire would begin a major expansionary thrust into the Theta (Terran) Quadrant in 2500 (plus or minus fifty) years, he recommended immediate IRSOL action to cultivate development of a local starculture capable of unifying the diverse aboriginal races and starcultures in the region to resist the incursion into the Neutral Zone between the Starkaad and Korellian Empires. Though his recommendations to the High Council were rejected as unconscionable interference in the natural development of alien cultures, Maleena persisted in his efforts. In 2003, he presented incontrovertable proof of the ethical necessity of his logic in his brilliant Makalon Ranael Subrai, which is still considered to be one of the finest examples of Twentieth Level Ethical Equation produced since the Vokkon Surala Sindara of Alad Narrari established the need of the IRSOL race to abandon their home planet of Thrale before a Super-Nova destroyed it (Thrale: 9.CC.—95 Rigel StarSector GSC 10.JJ. —200 Terran Quadrant, Nova N53, 175). Consequently, intervention was authorized in 2005 to provide the Terran nation-state known as the North American Federation with the Xenon device....

....After the completion of his lengthy project to establish a stable and ethical starculture centering upon the planet Terra, Acadamarian Maleena retired from his duties. However, the impending threat of the Starkaad invasion of the StarCluster NCG 2447 (GSC 1.CC.—1400) caused the citizens of Valinor N'Thrale to recall the aged scholar to public duty by unanimous acclaim to the post of High Councillor.... In 2526, Supreme Councillor Tors Bravis himself acclaimed High Councillor Maleena to the Authority and stepped down. His decision was acclaimed by the populace and the High Council, as Maleena was regarded most qualified to deal with the crisis.....serving the StarCity well until his death in office in 2539.

In 2540, when the full story of Maleena's contribution to Humanity and the other races of the Federation became generally known, the Grand Assembly of the Federation voted Tal Maleena Vi Tinala the highest honor of the United Federation of Planets, the Star of the Covenant.

THE STARSECTOR CHARTS

Two starsector charts are included with this atlas. The first is a 17 x 22 inch chart of the Terran Quadrant of the First Galaxy. The second is an 8½ x 11 inch chart of the Terran StarSector.

The Quadrant chart represents a volume of space 4000 LY x 5200 LY x 6000 LY, or a total of 1.248×10^{11} cubic light years. It includes a number of star clusters commonly known, a number of which contain significant numbers of inhabited star systems.

The Quadrant chart is divided into 200 LY x 200 LY x 200 LY StarSectors. Each StarSector can be referred to by a standard set of co-ordinates which fixes the position of the marker star in the center of the StarSector. The co-ordinates consist of three components:

1. A set of numbers from 01 to 26
2. A set of letters from A to T
3. Vertical coordinates measuring light years above or below the plane of the Terra/Solarian StarSystem.

Co-ordinates are always written with the preface GSC (Galactic Standard Co-ordinate). The co-ordinates of the Terran StarSector, for instance, are written: Terran Sector: GSC 14.JJ.+000. (Note that the letter co-ordinate is repeated twice, though it appears only once on the chart.)

To illustrate again, the Rigel Sector is at GSC 10.JJ.–200, meaning that Rigel, the marker star, is located at 200 LY below the Solarian StarSystem at letter co-ordinate J and number co-ordinate 10 on the Quadrant Chart.

To measure FTL jump distances between any two StarSectors, lay a metric ruler on the chart and measure the distance between the two marker stars in the StarSectors. This is the horizontal distance, with 1mm = 10 LY or 1 cm = 100 LY. The vertical distance is found by finding the difference between the vertical co-ordinates of the two marker stars.

For example, the horizontal distance between Terra/Sol and Rigel is 80mm or 800 LY. The vertical distance between them is –200 (Rigel) + 000 (Terra/Sol) = 200 LY. This forms two sides of a right-angled triangle. To find the exact distance between Terra/Sol and Rigel, find the length of the hypoteneuse:

$$\text{Distance} = \sqrt{H^2 + V^2}$$

$$= \sqrt{(800 \times 800) + (200 \times 200)}$$

$$= 824 \text{ LY}$$

Note also that the vertical distances given on the Quadrant Chart extend +3000 LY to –3000 LY from the +000 plane of Terra/Sol.

The dark line extending across the chart between co-ordinates 18 and 22 (somewhat zig-zagged) represents the boundary line of the Orion Arm, in which Terra is found. The region beyond that out to the edge of the chart represents a relatively star-free area between the Orion and Sagittarius Arms of the First Galaxy. The Sagittarius Arm itself is about 4000-5000 LY beyond the edge of the chart. The Galactic Center is about 30,000–35,000 LY beyond the same edge of the chart.

StarSector Charts are cubes 200 LY on a side. Co-ordinates are again presented in three parts

1. A set of numbers from 01 to 10
2. A set of doubled letters
3. Vertical co-ordinates measuring the distance above or below the plane of the marker star for the StarSector (maximum +100 or –100).

The first two co-ordinates exist largely to assist players to find the approximate position of the star on the chart, which may become rather cluttered with names, numbers, etc.

The marker star for the sector is always given the co-ordinate 00, followed by a slash (/) and then the Quadrant vertical co-ordinate. For example, Terra/Sol is at co-ordinate 000/00, meaning that it is at the center of the Terran StarSector (00) on the plane of itself and is also at the plane of Terra (+000) on the larger Quadrant Chart. Rigel, mentioned previously, is at StarSector co-ordinates 00/–200 in the Rigel Sector.

All other stars have a triple co-ordinate. For example, Algol, a binary B8v/K4v system is at co-ordinates 8.CC.+70, meaning it is in the vicinity of where 8 and CC lines meet, and +70 LY above the plane of Terr/Sol.

The full co-ordinate for any star includes first its StarSector co-ordinates and then its Quadrant co-ordinates. For instance, Algol's complete listing is 8.CC.+70 Terran Sector GSC 14.JJ.+000. A marker star like Rigel has full co-ordinates –200/00 Rigel Sector GSC 10.JJ.–200, while Terra/Sol has 000/00 Terran Sector GSC 14.JJ.+000.

If one were to extend the action beyond the Terran StarQuadrant, the Quadrant Co-ordinate would be given. This simply requires naming the Quadrant after the full co-ordinates. Rigel, for example, has a Galactic co-ordinate of 00/–200 Rigel Sector GSC 10.JJ.–200 Terran Quadrant.

Computing distances between planets in a StarSector is again a matter of measuring the horizontal distance on the chart, with the scale a 1mm = 1 LY or 1cm = 10 LY. Then find the vertical distance, and proceed as described for finding distances between marker stars.

Suppose that one wished to make an FTL jump from Algol to Rigel. First compute the distance from Algol to the sector marker, Terra/Sol. Then compute the distance from Terra/Sol to Rigel. All FTL jump distances between starsectors are computed between the marker stars, and one must first proceed to the marker star of the sector he is in before jumping to another starsector.

The H distance from Algol to Terra/Sol is 78mm = 78 LY, while the V distance is +70 (printed above Algol on the chart). The exact distance to the marker star = square root of $78^2 + 70^2$ = 105 LY. We have already computed the distance from Terra to Rigel at 824 LY, so the complete distance = 105 + 824 = 929 LY.

Players are advised to use a good basic pocket calculator with square root functions. The computation given above took 18 seconds, including measurement, with a Texas Instruments TI-25. The bookwork involved is purely incidental with electronic assistance. The result is a real feeling of authenticity.

STARSECTOR AREA CHART:

FORM ISS.2550.26R

Also included for player use and xerox reproduction is a standard blank starsector area chart which can be used to plot stars in regions designed by the StarMaster.

Note that all entries include the vertical co-ordinate over the name of the star, and then the stellar type and size under the name. A dot or star is placed on the exact position of the star.

	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

STARSECTOR AREA CHART: FORM ISS.2550.26R 200×200×200 = 8 000 000 cubic LY SCALE: 1mm = 1LY

PLANETARY DESCRIPTIONS

The following planets are described in the Terran StarSector Atlas in alphabetical order:

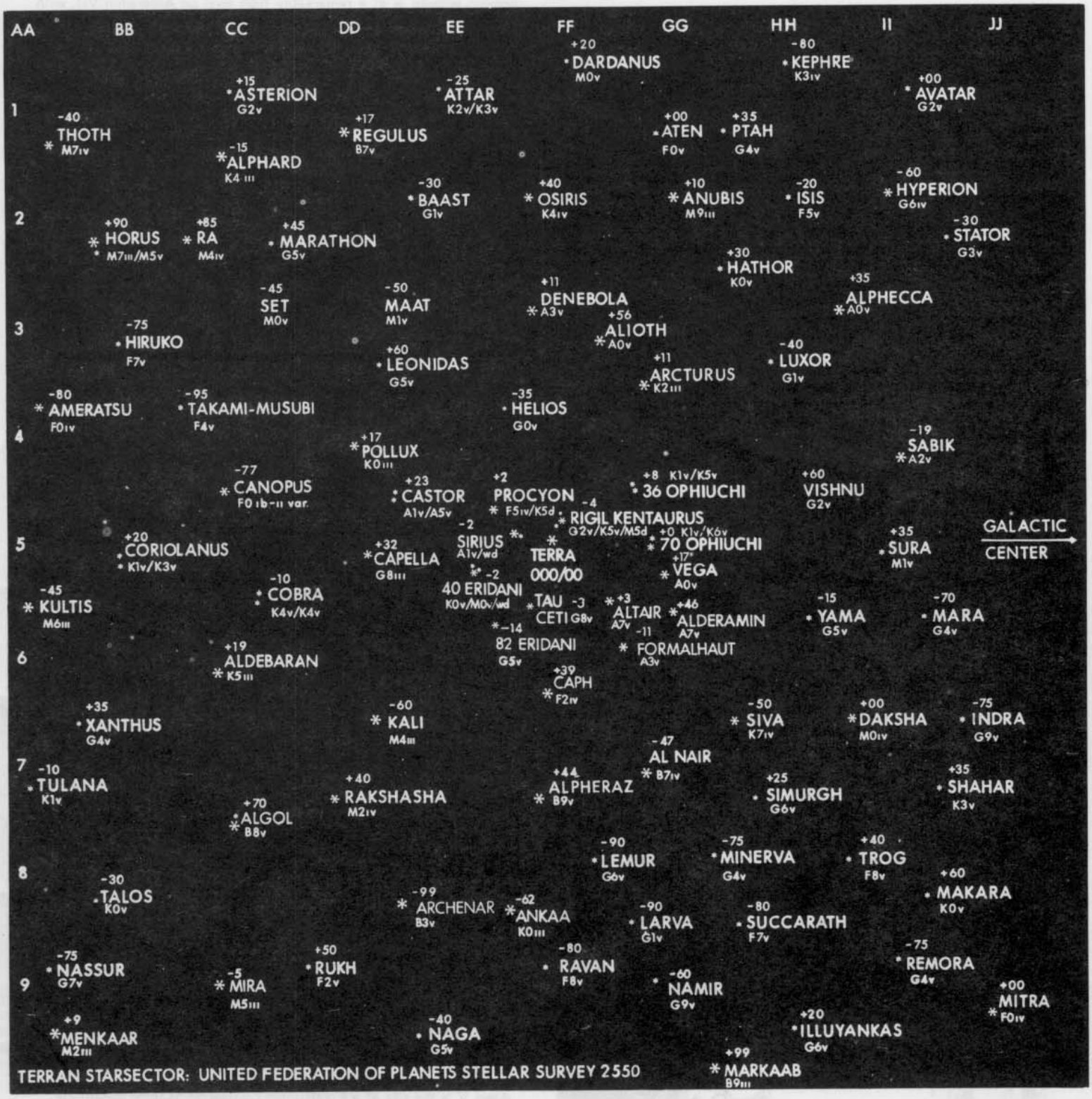
Alderamin VII
Algol V
Alphard V
Alphecca III
Alpheraz IV
Altair V
Ankaa III
Anubis VI
Archenar VI
Arcturus VI
Asterion III
Aten IV
Attar III
Avatar III
Baast III
Canopus V
Capella V
Caph III
Castor III
Cobra II
Dardanus I
Denebola V
40 Eridani
82 Eridani
Formalhaut III
Hathor III
Helios IV
Horus IV
Hyperion III
Kephre II
Kultis V
Larva III
Leonidas II
Maat II
Marathon III
Markaab V
Mara III
Menkaar V
Minerva II
Mira IV
Mitra III
Namir II
Nassur III
36 Ophiuchi
70 Ophiuchi
Osiris IV
Pollux V
Procyon IV
Procyon V
Ptah II
Ra III
Rakshasha V
Regulus VI
Rigil Kentaurus III
Sabik VI
Set III
Sirius V
Stator III
Succarath IV
Sura II
Talos III
Tau Ceti II
Terra-Solarian System
Thoth IV
Vega V
Vishnu II

STARSYSTEMS PLOTTED BUT NOT DESCRIBED

A number of starsystems have been plotted on the Terran Sector Chart which are left undescribed. These represent additional starsystems which the StarMaster can design himself or leave to player-characters to explore from scratch. These are:

4.AA.–80 Ameratsu
5.AA.+30 Coriolanus
7.HH.+00 Daksha
4.AA.–75 Hiruko
10.HH.+20 Illuyankas
7.II.+00 Indra
2.HH.–20 Isis
7.DD.–60 Kali
8.FF.–90 Lemur
4.HH.–40 Luxor
9.II.+60 Makara
10.DD.–40 Naga
9.EE.–80 Ravan
9.II.–75 Remora
9.CC.+50 Rukh
8.II.+35 Shahar
8.GG.+25 Simurgh
7.GG.–50 Siva
3.BB.–95 Takami-Musubi
8.HH.+40 Trog
8.AA.–10 Tulana
6.HH.–15 Yama

Additional starsystems can be plotted by the StarMaster as well. The 8,000,000 cubic light years encompassing the Terran Sector holds almost 32,000 stars, and planets could easily be found around some as yet not plotted on the Sector chart.


AA
BB
CC
DD
EE
FF
GG
HH
II
JJ
1
2
3
4
5
6
7
8
9
+20 DARDANUS M0v
-80 KEPHRE K3iv
+15 ASTERION G2v
-25 ATTAR K2v/K3v
+00 AVATAR G2v
-40 THOTH M7iv
+17 REGULUS B7v
+00 ATEN F0v
+35 PTAH G4v
-15 ALPHARD K4 III
-30 BAAST G1v
+40 OSIRIS K4iv
+10 ANUBIS M9III
-20 ISIS F5v
-60 HYPERION G6iv
+90 HORUS M7III/M5v
+85 RA M4iv
+45 MARATHON G5v
-30 STATOR G3v
+30 HATHOR K0v
-45 SET M0v
-50 MAAT M1v
+11 DENEBOLA A3v
+35 ALPHECCA A0v
+56 ALIOTH A0v
-75 HIRUKO F7v
+60 LEONIDAS G5v
+11 ARCTURUS K2III
-40 LUXOR G1v
-80 AMERATSU F0iv
-95 TAKAMI-MUSUBI F4v
-35 HELIOS G0v
+17 POLLUX K0III
-19 SABIK A2v
-77 CANOPUS F0 Ib-II var.
+23 CASTOR A1v/A5v
+2 PROCYON F5iv/K5d
+8 K1v/K5v 36 OPHIUCHI
+60 VISHNU G2v
-4 RIGIL KENTAURUS G2v/K5v/M5d
+0 K1v/K6v 70 OPHIUCHI
+20 CORIOLANUS K1v/K3v
-2 SIRIUS A1v/wd
+32 CAPELLA G8III
TERRA 000/00
+17 VEGA A0v
+35 SURA M1v
GALACTIC CENTER
-45 KULTIS M6III
-10 COBRA K4v/K4v
-2 40 ERIDANI K0v/M0v/wd
-3 TAU CETI G8v
+3 ALTAIR A7v
+46 ALDERAMIN A7v
-15 YAMA G5v
-70 MARA G4v
-14 82 ERIDANI G5v
-11 FORMALHAUT A3v
+19 ALDEBARAN K5III
+39 CAPH F2iv
+35 XANTHUS G4v
-60 KALI M4III
-50 SIVA K7iv
+00 DAKSHA M0iv
-75 INDRA G9v
-47 AL NAIR B7iv
-10 TULANA K1v
+40 RAKSHASHA M2iv
+44 ALPHERAZ B9v
+25 SIMURGH G6v
+35 SHAHAR K3v
+70 ALGOL B8v
-90 LEMUR G6v
-75 MINERVA G4v
+40 TROG F8v
-30 TALOS K0v
-99 ARCHENAR B3v
-62 ANKAA K0III
-90 LARVA G1v
-80 SUCCARATH F7v
+60 MAKARA K0v
-75 NASSUR G7v
+50 RUKH F2v
-5 MIRA M5III
-80 RAVAN F8v
-60 NAMIR G9v
-75 REMORA G4v
+00 MITRA F0iv
+9 MENKAAR M2III
-40 NAGA G5v
+20 ILLUYANKAS G6v
+99 MARKAAB B9III
TERRAN STARSECTOR: UNITED FEDERATION OF PLANETS STELLAR SURVEY 2550

ALDERAMIN VII

StarSystem Coord.	6.GG.+46 Terran Sector GSC 14.00.+000
Stellar Primary	A7v main sequence star
FTL Conversion	10,000 LS
Planets in System	11
ALDERAMIN VII	Type 3 Severely Tilted Terran Planet: 2 moons
Orbital Distance	2500 LS (5.00 A.U.)
Length of Year	4.08 Terran years
Length of Day	23 hours 50 minutes
Planetary Diameter	12,000 km
Surface Gravity	0.92 G (dense)
Temperature Range	-90°C to 75°C
Atmosphere Type	Terran: 1200mm, with O2 at 250mm (high). Volcanic contaminants present, some noxious
Hydrosphere Type	25% = Arid Planet conditions, with landlocked seas and lakes. Low humidity and precipitation
StarNationality	UFP Colony
Sentient Race	Human Colonial in sealed shelters
Population	1,000,000
Tech Level	Tech/9-10
StarPort Rating	UFP StarPort D landing ground
Societal Organization	Open Society
Societal Strength	5
Xeno Acceptance	10%
Government Type	Republic
Government Support	18% (Vote = 55%)
Loyalty Index	70% (Revolt = 10%)
Repression Index	06%
Bureaucracy Level	Minimal
Corruption Level	15%
Law Level	1-5
Economic Rating	Average Agricultural
Gross Productivity	MCR 4750
Per Capita Income	CR 4750
Tax %/Levy	30% = MCR 1425
Military Spending	10% = MCR 500
Major Exports	luxury foods (exotic), gold, silver, platinum
Major Imports	parts, vehicles, misc. equipment, general tools
Trade Restrictions	10% import duty on non-preferred goods
Trade Acceptance	33%

Alderamin VII exhibits the classic characteristics of a Type 3 Terran Planet (refer to 15.5, **Space Opera**), with animal and plant life superbly adapted to the changing conditions. Many animals migrate with the sun, but a few are highly adapted to polar and sub-polar winters, developing valuable furs (150% normal prices) which may be obtained from the

hardy 'Mountainmen' of the colony. While some of the beasts are fairly tough, none exceed the size and ferocity of the Terran grizzly. Feline life forms are conspicuously absent, but there are wolf-like canines. Herd animals resemble the Terran Bison and Musk Oxen, deer and antelope. As the 'forests' are little more than taiga, most creatures are adapted to a relatively open environment, exhibiting a good bit of speed.

Seismic activity is at a remarkably high level on Alderamin VII, with quakes of Richter 4-6 not at all uncommon. In the vicinity of the many active volcanoes along the equatorial belt, respirators and filter masks will be required, as some of the fumes are highly toxic or narcotic.

Alderamin society is typically rural and industrious, although the colonials are given to exuberant partying, brawling, and gambling when the work is done. Once accepted, a stranger is accorded warm hospitality. The luxury foods of Alderamin are particularly prized by the humanoids of Procyon IV, who will pay a premium of +5d6% above usual costs for them.

ALGOL V

StarSystem Coord.	8.CC. +70 Terran Sector GSC 14.00+000
Stellar Primary	B8v/K4v binary star system
FTL Conversion	10,000 LS
Planets in System	10
ALGOL V	Type 12 Terran 'Eccentric Orbit' Planet: 0 moons.
Orbital Distance	Min. 3000 LS (6.00 A.U.); Max. 9500 LS (19.00 A.U.)
Length of Year	19.13 Terran years
Length of Day	47 hours 17 minutes
Planetary Diameter	12,000 km
Surface Gravity	1.20 G (very dense)
Temperature Range	−115°C to 90°C
Atmosphere Type	Terran: 225mm (thin), with 02 at 55mm (below minimum levels). Respirators are essential
StarNationality	Terran UFP Military Outpost
Sentient Race	Terran humans; UFP personnel & scientists
Population	50,000 humans
Tech Level	Tech/10+
StarPort Rating	UFP StarPort AAA Class 2 (Tech/10+)
Social Organization	Terran Research Colony: Military Discipline
Societal Strength	10
Xeno Acceptance	01%
Government Type	Military Command
Government Support	100% (Vote = 100%)
Loyalty Index	100% (Revolt = 0%)
Repression Index	00%
Bureaucracy Level	Military Security
Corruption Level	00%
Law Level	16-17
Economic Rating	–
Gross Productivity	–
Per Capita Income	–
Tax %/Levy	–
Military Spending	–
Major Exports	–
Major Imports	food, parts, vehicles, misc. equipment
Trade Restrictions	Government Contract
Trade Acceptance	00%

Algol V is the site of a ForeRunner civilization of some magnitude. The planet has been placed under a total interdict by the UFP administration, as many of the artifacts discovered in the ruins have military significance or else are irreplaceable art treasures. There are no hostile life forms on the planet, the largest beast being a burrowing 'L' creature (25 kg) of an omnivorous nature. Plant life is typically of the sort found in desert regions. Little data has been released on Algol V because of the planet's classified status.

Removal of a ForeRunner artifact from Algol V is punishable by ten years (Terran) imprisonment. Unauthorized presence on the planet carries a CR 10,000 fine and up to three years imprisonment.

ALPHARD V

StarSystem Coord.	2.BB.–40 Terran Sector GSC.14.33.+000
Stellar Primary	K4iii giant star
FTL Conversion	35,000 LS
Planets in System	11
ALPHARD V	Type 5 Terran 'No Season' Ice Planet
Orbital Distance	6505 LS (13.01 A.U.)
Length of Year	10.53 Terran Years
Length of Day	25 hours 36 minutes
Planetary Diameter	15,000 km
Surface Gravity	0.94 G (moderate density)
Temperature Range	–90°C to 30°C
Atmosphere Type	Terran: 700mm, with O2 at Terran Standard 175mm; severe blizzards in middle and high latitudes in winter season.
Hydrosphere Type	72% H_2O = 7 continents; polar and sub-polar seas frozen all year round, with huge ice caps covering continents down to edge of sub-tropics
StarNationality	UFP Associate Member
Sentient Race	Human Colonial/Humanoid
Population	5,000,000 Humans/20,000,000 Alphari Humanoids
Tech Level	Tech/10 human; Tech/6 humanoid
StarPort Rating	UFP StarPort AAA Class 1 (Tech/10 facility)
Sociological Data	Human
Sociatal Organization	Open Society
Societal Strength	9
Xeno Acceptance	05% prejudice
Government Type	Federation Colony
Government Support	52% (Vote = 88%)
Loyalty Index	95% (Revolt = 5%)
Repression Index	05%
Bureaucracy Level	Moderate, efficient
Corruption Index	07%
Law Level	1-5
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 125,000
Per Capita Income	CR 25,000
Tax %/Levy	30% = MCR 37,500
Military Spending	20% = MCR 25,000
Major Exports	precious & industrial metals
Major Imports	food, high-tech goods
Trade Restrictions	Free Trade Policy
Trade Acceptance	60%
Sociological Data	Humanoid Alphari
Societal Organization	Open Society
Societal Strength	5
Xeno Acceptance	17% prejudice
Government Type	Republic
Government Support	39% (Vote = 53%)
Loyalty Index	66% (Revolt = 34%)
Repression Index	22%
Bureaucracy Level	Minimal
Corruption Index	16%
Law Level	1-5
Economic Rating	Poor Agricultural
Gross Productivity	MCR 30,000
Per Capita Income	CR 1500
Tax %/Levy	25% = MCR 7500
Military Spending	15% = MCR 4500
Major Exports	furs, food
Major Imports	food, liquor, misc. tools
Trade Restrictions	Tech/7 restriction on goods
Trade Acceptance	40%

Alphard V is an Ice Planet locked into an unchanging pattern, with fairly moderate climatic conditions in lower latitudes, but high latitudes have severe polar conditions all year around.

The planet contains vast deposits of industrial metals and a moderately rich supply of precious metals, and the human population has developed a most profitable mining industry. Many secondary manufacturing industries also exist on a small scale to provide local needs, but high technology goods (electronics, computers, vehicles, etc.) are imported. Almost all of the human colonists live along the equatorial belt.

The Alphari tribesmen discovered on the planet have been brought quickly to Tech/6 levels by the friendly human colonials and the Contact Service. The amber-skinned humanoids are strikingly handsome and can intermarry with humans. Relations between the two races are most congenial, but the Alphari regard off-planet visitors with distrust, as an abortive 'gold-rush' produced some unpleasant consequences when prejudiced prospectors attempted to exploit the natives. Harkening back to their recently nomadic past, the Alphari still engage in hunting on the ice, although a number have turned to agriculture and are beginning to produce grain and vegetable crops. Some have entered human colonial society and have attained high levels of education and technical skill, which they are carrying back to their own people.

The Contact Service still restricts the level of goods that can be traded to the Alphari to Tech/7 goods, as the race is still vulnerable to culture shock.

A major portion of Alphard V is under a thick ice cover, while the low latitudes support widespread northern taiga forests. Most of the planet is uncharted wilderness. Animal forms are excellent fur bearers, most of which are relatively small and of limited or no danger to personnel. However, the **Alphari Cave Bear**, a formidable 'F' beast with maximum physical characteristics and terrible 'A' claws and fangs (fast movement) must be constantly guarded against, as it is a voracious omnivore which evidences all of the endurance, cunning, and ferocity of the Terran polar bear. Pelt Value = CR 200 x 2d6.

ALPHECCA III

StarSystem Coord.	3.HH.+35 Terran Sector GSC 14.JJ.+000
Stellar Primary	AOv main sequence star: K3v companion
FTL Conversion	10,000 LS
Planets in System	10
ALPHECCA III	Type 4 Terran 'Cool' Planet: Ringed; 3 moons
Orbital Distance	4500 LS (9.0 A.U.)
Length of Year	9.86 Terran years
Length of Day	30 hours 58 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.84 G (dense)
Temperature Range	–90°C to 55°C
Atmosphere Type	Terran: 750mm with O2 at 175mm (normal). Climate and weather tend to be more severe than on Terra.
Hydrosphere Type	78% = 6 continents, with extensive polar ice caps and 3 landlocked seas.
StarNationality	UFP Protectorate
Sentient Race	Humanoid
Population	50,000,000 Alpheccan humanoids (est.)
Tech Level	Tech/4
StarPort Rating	UFP StarPort B Class 3 (minimal Tech/10 facitlity)
Social Organization	Primitive Societies
Societal Strength	2
Xeno Acceptance	30%
Government Type	Tribal 'Anarchy'
Government Support	22% (Vote = 50%)
Loyalty Index	55% (Revolt = 40%)
Repression Index	40%
Bureaucracy Level	Non-existent beyond UFP Outpost at StarPort
Corruption Level	15%
Law Level	14-15 (Contact Service directive)
Economic Rating	Poor Agricultural
Gross Productivity	MCR 12,500
Per Capita Income	CR 250
Tax %/Levy	–
Military Spending	–
Major Exports	furs, food, gold, silver, platinum
Major Imports	general tools, misc. equipment
Trade Restrictions	Contact Service license: Tech/4-5 goods only
Trade Acceptance	35%

Alphecca III is under Contact Service administation as a protected planet. The tribal Alpheccans are not yet developed technologically and culturally to a point where they can survive the impact of full contact with advanced StarCultures. Limited trade is allowed under license,

but importation of items above Tech/5 is strictly forbidden. Personnel are not allowed to carry energy weapons or military arms of any kind unless granted permission to do so by the resident Chief Planetary Commissioner. (About 2000 Contact Service Personnel and a reinforced battalion of Space Marines are based on the planet.)

The Alpheccans are divided into tribal groups of about 25,000 to 50,000 each. They are highly warlike and engage regularly in raids and minor battles with each other. They prize only 'warrior' virtures and despise any form of cowardice. In cultural behavior, they resemble the Amerinds of the North American woods, especially the militant Iroquoians. In appearance they are quite human except for their deep coppery-gold skin tones. Intermarriage with humans is possible, and a number of resident humans have taken Alpheccan mates. Marriage and adoption into the tribe (after surviving an ordeal called the 'gauntlet') are instant entries into Alpheccan tribal society, with full rights of zenship granted upon admission.

Animal life is remarkable similar to Terran woodland forms, although there are differences in coloration and configuration. Fur-bearing beasts are very common, and furs are the principal export commodity, although food products (meat, grain, Alpheccan fruits and vegetables) are also exported in growing quantities. Precious metals are also present in significant quantities, but the Contact Service has been firm in preventing a 'rush' of prospectors onto the planet.

ALPHERAZ IV

StarSystem Coord.	8.EE.+44 Terran Sector GSC 14.JJ.+000
Stellar Primary	B9v main sequence star
FTL Conversion	10,000 LS
Planets in System	12
ALPHERAZ IV	Type 15 'Hot' Planet: 0 moons
Orbital Distance	3000 LS (6.00 A.U.)
Length of Year	4.65 Terran years
Length of Day	9 hours 18 minutes
Planetary Diameter	30,000 km
Surface Gravity	1.90 G (moderate density)
Temperature Range	85°C to 175°C
Atmosphere Type	Corrosive: 1000mm, with numerous atmospheric contaminants. Radiation levels at RAD/5–10.
Hydrospheric Type	No water: numerous acids and other highly corosive substances.
StarNationality	UFP Research Outpost
Sentient Race	UFP member races
Population	5000 in domed colony
Tech Level	Tech/10+
StarPort Rating	UFP StarPort D landing ground
Social Organization	Contact Service
Societal Strength	10
Xeno Acceptance	00%
Government Type	Contact Administration
Government Support	100% (Vote = 100%)
Loyalty Index	100% (Revolt = 00%)
Repression Index	00%
Bureaucracy Level	Moderate, highly efficient
Corruption Level	00%
Law Level	18
Economic Rating	–
Gross Productivity	–
Per Capita Income	–
Tax %/Levy	–
Military Spending	–
Major Exports	none, but very rich in metals
Major Imports	food, parts, misc. equipment, vehicles
Trade Restrictions	Emergency Landing only; otherwise Government Contract.
Trade Acceptance	00%

Alpheraz IV is the only planet in the Terran StarSector known to have native silicate life forms. These life forms correspond to the full range of 'beasts', with almost any combination of characteristics possible. However, none have armor under C/C/D, and some have bodies equivalent to AFV armor. They appear to draw 'nourishment' directly from hard solar radiation, but also 'eat' minerals. While Alpherazi conditions are savage in their severity, it is now apparent that the silicates can survive in environments with lower temperatures and radiation levels. Mass of such creatures is five times normal for beast size.

There are sentient silicates on Alpheraz, but as yet no contact has been made with them. They appear to be of about human size, but mass five times human norms. Rated as 'beasts', they have A/A/A natural body armor, range between 275 kg and 550 kg, possess 'B' or 'C' natural weapons with +3 penetration DMs, and maximum levels for carrying capacity, damage, etc. Their intelligence levels are unknown, but appear to be rather high as no attempt to secure a member of this mysterious race for examination has succeeded, regardless of equipment and expertise used. The Alpherazi Silicates are not hostile to UFP races and tend to avoid personnel. However, on one occasion, a Silicate rescued a stranded research officer, killing two silicate beasts attacking him, then carrying him 225 km back to the Outpost boundaries before disappearing again.

Alpheraz IV is unbelievably rich in uranium and thorium. Estimated returns from a colony would be CR 500,000 per capita, once facilities are established. Cost of development would be CR 750,000 per person if adequate protection from the environment is to be afforded.

Breakdowns of unspecialized equipment run at a 10% chance per 24 hours if not specially prepared for the environment, with maintenance needed every 72 hours. Prepared equipment has normal breakdown levels, but costs 500% standard prices and requires weekly maintenance.

ALTAIR V

StarSystem Coord.	6.FF.+03 Terran Sector GSC 14.JJ.+000
Stellar Primary	A&v main sequence star
FTL Conversion	10,000 LS
Planets in System	11
ALTAIR V	Type 1 Terran Arid Planet: 2 moonlets
Orbital Distance	1750 LS (3.50 A.U.)
Length of Year	2.07 Terran years
Length of Day	27 hours 20 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	–65°C to 75°C
Atmosphere Type	Terran: 800mm, with 02 at 175mm (normal). In desert regions, dust concentrations often exceed 1765 mp/m^3 and filtering equipment is essential. Dust storms are also common. The entire planet is deficient in precipitation and humidity levels except for the uplands, which tend to approach congenial Terran norms.
Hydrosphere Type	19% = 3 landlocked seas and a large number of lakes, found mainly in the central uplands of the Torrens Plateau and the Ortega Range.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	100,000,000 humans
Tech Level	Tech/10+ high-technology culture
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10+ facilities)
Social Organization	Open Society, but with regions under strict security
Societal Strength	10
Xeno Acceptance	04%
Government Type	Republic
Government Support	62% (Vote = 70%)
Loyalty Index	92%, Revolt is virtually unthinkable
Repression Index	01%
Bureaucracy Level	Moderate, very efficient
Corruption Index	01%
Law Level	14-15, with superbly efficient Police/BRINT agencies
Economic Rating	Exceedingly Rich Industrial
Gross Productivity	MCR 10,000,000
Per Capita Income	CR 100,000 (Av. Personal Income=CR 25,000)
Tax %/Levy	50% = MCR 5,000,000
Military Spending	40% = MCR 4,000,000
Major Exports	armaments, vehicles, aircraft, StarShips
Major Imports	collapsium, irridium, petrochemicals, industrial chemicals, food, wines, luxury goods
Trade Restrictions	Advanced weapons and StarShips are sold only

	to UFP Member Planet Governments by direct contract.
Trade Acceptance	75%

Altair V is a Terraformed Planet, first colonized in 2068. Since there were only limited and rather primitive life forms, Terran plants and animals were introduced. Thus, the planet evidences a distinctly Terran character in its desert and steppeland flora and fauna. The uplands are fairly well watered, and Terran mountain life forms have been introduced, resulting in wooded valleys and slopes with mountain lions, deer, and other characteristic animals.

Altairian society is virtually identical to Terra's. The planet is highly industrialized, and the standard of living is high as well. Since a good portion of the industry is government owned, the 'tax' level equates to an effective 50% of the planetary gross product, and Altairian commitment to a strong military and naval force has resulted in diversion of 30% of the PGP to defense.

ANKAA III

StarSystem Coord.	9.EE.–62 Terran Sector GSC 14.JJ.+000
Stellar Primary	KOiii giant star
FTL Conversion	35,000 LS
Planets in System	12
ANKAA III	Type 1 Terran Standard Planet: 5 moons
Orbital Distance	3500 LS (7.00 A.U.)
Length of Year	5.30 Terran years
Length of Day	24 hours 12 minutes
Planetary Diameter	30,000 km
Surface Gravity	3.00 G (very dense)
Temperature Range	–80°C to 65°C
Atmosphere Type	Terran: 1500mm, with O2 at 250mm (high). Climate and weather tend to more severe extremes than Terra's
Hydrosphere Type	70% = 7 continents, 4 sub-continents, and many chains of islands. Heavy precipitation and fairly high humidity.
StarNationality	UFP Member Planet
Sentient Race	Blarad Ursoids
Population	750,000,000 Ursoids
Tech Level	Tech/9
StarPort Rating	UFP StarPort AAAAA x 3 Class 1 (Tech/10+ facilities)
Social Organization	Blarad Aristocratic
Societal Strength	10
Xeno Acceptance	20%
Government Type	Blarad Monarchy
Government Support	40% (Vote = 85%)
Loyalty Index	95% (Revolt = 01%)
Repression Index	02%
Bureaucracy Level	Moderate, very slow, ponderous, and precise
Law Level	6-9
Economic Rating	Exceedingly Rich Industrial
Gross Productivity	MCR 16,875,000
Per Capita Income	CR 22,500
Tax %/Levy	40% = MCR 6,750,000
Military Spending	30% = MCR 5,000,000
Major Exports	Manufactured products
Major Imports	industrial metals and chemicals, collapsium
Trade Restrictions	15% import duty on non-preferred goods
Trade Acceptance	75%

Ankaa III is an old Blarad colony first settled from the Horsehead Nebula StarSector in 1855 (Terran calendar). In 2388 Ankaa III joined the old Terran Union as an 'Allied Planet', and in 2412 became a full member of the Federation.

Ankaa III possesses a very powerful gravitational field, beyond the capacity of most humanoids and humans to adapt to successfully. However, there is a small human population of about 3,000,000 hardy souls who have managed to adjust to the severe conditions and provide a much needed high-tech component to the Blarad economy. Another 500,000 humans live in the domed cities of Ankaa III's largest moon.

The Blarad society is a very modified aristocracy, which is more titular than anything else. The Blarads value the nobility of lineage for its social status, but are frankly realistic about according promotion by merit. The government is, to all intents, democratic, with the Crown existing as a figurehead institution. There are instances when the King himself shows outstanding leadership qualities, and at such times it is often the case that he acquires sweeping influence over Blarad political affairs. This is presently the case, for His Royal Highness Tek'aal Tukakar Thonaval VII is a brilliant sovereign, educated in the StarFleet Academy on Tycho and the University of Ceta.

Ankaan life forms are **tough** beyond belief. No person born on the planet is under Strength and Constitution 16. The animal life itself is large, possessed of maximum physical characteristics, and is aggressively omnivorous. There are too many beasts to detail, but all are definitely a challenge for the hunter. Fortunately, the planet is largely well-settled, so that the truly dangerous animals are restricted to the wilderlands.

ANUBIS VI

StarSystem Coord.	2.GG.+10 Terran Sector GSC 14.JJ.+000
Stellar Primary	M9iii giant star
FTL Conversion	35,000 LS
Planets in System	12
ANUBIS VI	Type 1 Terran Steppe Planet: 1 moon
Orbital Distance	1750 LS (3.50 A.U.)
Length of Year	1.46 Terran years
Length of Day	29 hours 23 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.30 G (very dense)
Temperature Range	–75°C to 65°C
Atmosphere Type	Terran: 2500mm (high), with O2 at 450mm (high). Moderately low humidity and limited precipitation.
Hydrosphere Type	56% = 6 continents. Large areas are plains (steppe and savanna), but higher latitudes are forested.
StarNationality	UFP Affiliate: Independent Planet
Sentient Race	Canine
Population	250,000,000 Canines
Tech Level	Tech/8-9
StarPort Rating	Anubis StarPort AAAAA Class 1 (Tech/9)
Social Organization	Aristocratic
Societal Strength	6
Xeno Acceptance	17%
Government Type	Consitutional Monarchy
Government Support	25% (Vote = 62%)
Loyalty Index	87% (Revolt = 11%)
Bureaucracy Level	Moderate
Corruption Level	12%
Law Level	6-9
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 2,500,000
Per Capita Income	CR 10,000
Tax%/Levy	30% = MCR 750,000
Military Spending	20% = MCR 500,000
Major Exports	food, wine, textiles, industrial metals, petrochemicals
Major Imports	electronic & computer parts, general tools, misc. equipment.
Trade Restrictions	Free Trade Policy
Trade Acceptance	45%

Anubis IV is properly named after the ancient Egyptian Jackal God of Terra, for the inhabitants evidence a distinctly human body surmounted by a wolfish head covered with short fur. The society is aristocratic, with family blood-lines and traditions playing a significant part in the daily life of the inhabitants. The government is a constitutional monarchy, but the King is allowed to take a major role in the administration of the planet. Terra is regarded as a close friend and ally.

Anubis IV is covered by vast, fertile steppelands, with forested regions limited to the uplands and the middle latitudes. The Annubians are superb herdsmen and have domesticated the bison-like grazers of their planet, providing large quantities of high-protein meat, particularly to Terra. Grain and grapes were introduced by the 500,000 humans also living on the planet, and an excellent line of wines is now exported. Recently, the deposits of industrial metals and petroleum on the planet have been developed to a high degree, again with most being exported to Terra.

Terra is widely respected by the Annubians because of the stout defense of the planet put up by the 7th and 9th StarFleets of the Terran Union during the Hissss'ist 'Land Grab' of 2309–2338, and the Annubians go out of their way to support Terran policies and Terran products. In return, Terra has expended considerable efforts to improve Annubian technology, and has brought the planet to Tech/8-9 levels from its original Tech/4 in less than two centuries.

The planet is largely tamed, but their remains a ferocious canine stalker /ambusher which haunts the mountain wilderness, the feared **SkalTiger.** This 'G' beast masses 400 kg., is armed with 'B' fangs and claws, and can attain very fast movement. Though rare, the SkalTiger is exceedingly cunning and has a 75% chance of successfully ambushing its prey. Even the most advanced technological gear gives the hunter only a 50% chance of detecting the presence of the creature before it can make its sudden rush and killing spring. The anubians regard it as the height of courage to slay a SkalTiger, and there is a huge waiting list for a hunting license (250 issued per year). The pelt itself can command CR 2500 x 3d6 on Anubis, as one obtains great social status if he can display it in his home.

ARCHENAR VI

StarSystem Coord.	
Stellar Primary	B3v main sequence star
FTL Conversion	10,000 LS
Planets in System	11
ARCHENAR VI	Type 13.7 Terran Desert Planet: 2 moons
Orbital Distance	9500 LS (19.00 A.U.)
Length of Year	27.61 Terran years
Length of Day	30 hours 31 minutes
Planetary Diameter	25,000 km
Surface Gravity	1.50 G (moderate density)
Temperature Range	35°C to 85°C (subtract 10° to 30° at night)
Atmosphere Type	Terran: 1000mm with O2 at 225mm (rich). The dust levels in the atmosphere are very high, requiring the use of filters. Humidity levels approach 01% in most regions, and survival without a StillSuit is almost impossible for more than 19 hours. The sandstorms of Archenar VI are among the most violent known anywhere, and the worst have the destructive effects of a Mk.VIII sandblaster. Personnel must take shelter at such times.
Hydrosphere Type	Few Terran planets are known which have a deficiency of water comparable to that on Archenar. There is only limited atomospheric moisture, and few extensive subterranean deposits have been discovered.
StarNationality	UFP Affiliate: Independent Planet
Sentient Race	Human Colonials
Population	5,000,000 Polar Settlements/20,000,000 in the Desert (?)
Tech Level	Tech/9 Polar Settlements; Tech/6-7 Desert Seitches
StarPort Rating	Archenar StarPort AAA Class 1 (Tech/9)
Socialogical Data	**Polar Settlements**
Social Organization	Corporate State
Societal Strength	5
Xeno Acceptance	25% Prejudice
Government Type	Corporate Directorate
Government Support	18% (Vote = 63%)
Loyalty Index	63% (Revolt = 05%)
Repression Index	75% (anti-Freman)
Bureaucracy Level	Moderate
Corruption Level	20%
Law Level	16-17
Economic Rating	Exceedingly Rich Agricultural
Gross Productivity	MCR 1,500,000
Per Capita Income	CR 500,000
Tax %/Levy	30% = 1,500,000
Military Spending	30% = 1,500,000
Major Exports	'spicé
Major imports	parts, vehicles, factory equipment, luxuries
Trade Restrictions	Total ban on all non-authorized trade: Company monopoly
Trade Acceptance	75%

Sociological Data	**Freman Desert Seitches**
Social Organization	Primitive Tribal
Societal Strength	1
Xeno Acceptance	82% Prejudice
Government Type	Tribal 'Anarchy'
Government Support	21% (Vote = 59%)
Loyalty Index	94% (Challenge = 35%)
Repression Index	10% (within Tribe)
Bureaucracy Level	—
Corruption Level	02%
Law Level	1-5
Economic Rating	Poor Agricultural
Gross Productivity	MCR 10,000
Per Capita Income	CR 500
Tax%/Levy	—
Military Spending	MCR 7500 (ext.)
Major Exports	'spicé
Major Imports	armaments
Trade Acceptance	25%

Few Terran planets possess environments equal to that of Archenar VI for sheer deadliness. The high temperatures and virtual absence of moisture have eliminated all but the hardiest life forms, most of which are inedible or are so dangerous that only an expert skill or heavy armaments can save a man. The continually high dust content of the atmosphere is a serious hazard to health. Without a StillSuit, a man can hope to survive, at best, for a period of hours equal to his Constitution levels, and much less if a wind is up and dehydration is accelerated. The sand storms of Archenar are legendary for their savagaery as well, capable of shredding an unprotected human in minutes. Equipment breakdowns occur at triple the normal percentages, and there is always a 05% chance of a start-up breakdown, no matter what level of maintenance is maintained. And all equipment must be given a weekly maintenance check to ensure its operational efficiency, or an immediate breakdown check after exposure to storm conditions.

There are few native life forms dangerous to humans, but several are notable:

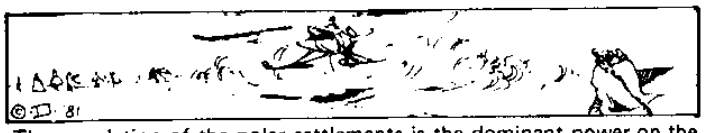
SandWorms: vast AAAAA+ segment 'worms' that can burrow through the sand at fast tracked vehicle speeds +1d20% (check per turn), the SandWorms of the deep deserts are capable of destroying a spice crawler or even the powerful Continental Siege Unit in moments. Only heavy blast cannon and thermonukes can dispatch them. Indeed, SandWorms are rated as equivalant to heavy armored fighting vehicles, with +4 armor and vehicle damage factors of 50 + 2.d100 points. When attacking, they have a 05% chance per 25 points of damage capacity (or part thereof) of engulfing and destroying any person(s) or vehicle(s) in their path. The 'Makers', in Freman parlance, are attracted by forcescreens and by noise, so personnel should move quietly over open sand and must learn to recognize drumsand. Technology is of limited value, and skill and plain stealth are mandatory in the deep desert to avoid these fearsome defenders of the 'spice.' It should also be noted that SandWorms remain below the surface until the final attack rush, so only the ripple of 'wormsign' can be seen on the surface sands to mark their approach. Where possible, one whould stay on solid rock surfaces.

Fremen: The nomadic tribesmen of Archenar VI are themselves dangerous to most outsiders. Oppressed and even hunted down by the Corporate authority, they have learned to mistrust all outsiders and will (82% of the time) render down captured personnel for their 'water.' The Fremen are disunited, with several hundred tribes scattered across the vast surface area of the planet. As yet, no leader has arisen to unite more than several of the tribes at any time, but should they all gather together in a common cause, there is little doubt that they will overwhelm the polar settlements. There are prophecies among the tribes, however, that a Prophet will come one day to lead them to victory against the hated polar settlements. Until then, no tribal leader will submit to the rule of another.

Within each tribe, politics are factional to an extreme degree. Leaders govern by force of character and good judgement (59% vote of general confidence), with a Revolt Index of 35% whenver leadership instability occurs in a crisis. A revolt is nothing more than an open Challenge by a rival for the leadership position, occasioning a duel to the death with crysknives made from the 'teeth of the Maker.' The crysknife is a weapon surrounded by tribal taboos and forbidden to non-Fremen. It has

the cutting power of a monofilament blade, but cannot penetrate armor of +2 or better.

Freman society is clearly communistic, but out of necessity. There are few resources available to Fremen, and they share most of what they have, producing food and equipment in their underground seitches for all to share. Only water is regarded as true wealth, and water is accorded deep religious respect. Sharing of water is regarded as the highest of expressions of friendship and concern. The giving of water tokens to a Freman maiden an offer of marriage. But, at the same time, the Fremen are no beggers, and disrespectful bribes with water are regarded as the height of insult.



The population of the polar settlements is the dominant power on the planet. The majority (about 65%) are employees of the fabulously rich and powerful 'spice' companies, but some 90% of the polar humans are descended from Fremen. Government is by a Board of Planetary Directors selected from the executives of the spice trading companies. The government enjoys the confidence of most employees and some of the other Fremen of the polar region, and there is little to fear from internal revolt. The Directorate is concerned only with spice production and the suppression of the desert Fremen. A massive levy is exacted from each company to maintain the ground, air, and space forces of the planet to ensure that company monopolies on the spice trade are maintained. However, the atmospheric conditions prevent accurate space observation of the planetary surface, and small Fremen groups can move undetected despite the technology available to the Directorate.

There are also several smuggler seitches in the polar regions. The location of the smuggler bases is secret, and these engage in trade with the desert Fremen, as well as run spice crawlers of their own in direct sontravention of Directorate law. The smugglers evidence a 95% xenophobia toward strangers, essentially a defensive stance as they cannot afford disclosure of their operations to the planetary government. They employ stripped-down StarFighters and ultra-fast corvettes to run contraband spice off the planet, using speed to elude the Directorate patrol craft.

The only major produce of Archenar VI is spice, a valuable organic substance found bubbling to the surface of the desert sands. Spice is an integral component of agathics, PSI drugs, and universal antidotes and antigens. It is also addictive over time. Cost = CR 2500/kg, with 20.d100kg lots available for sale in the polar settlements at any given time, and 2d10 kg lots in the desert seitches. Reslae can bring a sure 10.d10% profit in any Rich Industrial culture of Tech/9+ level.

In the Freman seitches, a –5.d10% discount is possible because the Fremen are desperate to obtain advanced armamants to fight the Directorate government. The illicit spice trade is therefore very profitable.

Spice crawlers can be purchased on Terra. They are custom-built ultra-heavy CargoTraks of 150t mass and cost CR 1,500,000, with a damage capacity of 50. (All other characteristics as for CargoTraks as per **Space Opera**, 5.14.) A CargoTrak can harvest spice at a rate of 1d10 kg per hour, separating the spice from the sand as it works. Crew = 20.

Carry-all wings are available to transport spice crawlers. These craft are huge helicopters with 250t lift capacity and have heavy helicopter characteristics, with mass 40t and cost CR 600,000.

Spice is relatively rare. There is a 01% chance per day (cumulative) that a spice deposit will be spotted by air reconnaissance. A deposit will consist of 1.d10 kg x 1d100.

ARCTURUS VI

StarSystem Coord.	4.FF.+11 Terran Sector GSC 14.JJ.+000
Stellar Primary	K2iii giant star
FTL Conversion	35,000 LS
Planets in System	15
ARCTURUS VI	Type 2 Terran Steppe Planet: 3 moons
Orbital Distance	4500 LS (9.00 A.U.)
Length of Year	54 Terran years
Length of Day	26 hours 14 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	–45°C to 70°C
Atmosphere Type	Terran: 700mm, with O2 at 160mm (normal). No unusual features except brilliant red sunsets.
Hydrosphere Type	55% = 5 continents and several island chains. While some regions are arid wastes and deserts, much of the planet is covered by fertile steppes and some forest regions exist, all of which are well watered.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	75,000,000 humans
Tech Level	Tech/10+ high-technology culture
StarPort Rating	UFP AAAAA Class 1 (Tech/10+ facility)
Social Organization	Open Society
Societal Strength	8
Xeno Acceptance	03% in urban areas; 09% in rural areas.
Government Type	Republic
Government Support	48% (Vote = 59%)
Loyalty Index	72% (Revolt18% in uncontrollable crisis; also add +12% to Crisis Index)
Repression Index	09%
Bureaucracy Level	Extensive, much red tape
Corruption Index	16% in Bureaucracy; 05% in Police
Law Level	14-15
Economic Rating	Rich Agricultural
Gross Productivity	MCR 1,125,000
Per Capita Income	CR 15,000
Tax %/Levy	30% = MCR 337,500
Military Spending	18% = MCR 200,000
Major Exports	food, textiles, fine wines, luxury crafts
Major Imports	misc. equipment, vehicles, aircraft, parts
Trade Restrictions	10% duty on imported agricultural goods
Trade Acceptance	68%

Arcturus VI is a Terraformed planet settled in 2085. It has proven to be very successful as a food-producing planet, with all life forms (plant and animal) introduced from Terra to produce a well balanced ecology. High technology farming and animal raising techniques are used, and high yields are commonplace. Most products are shipped to Terra.

Arcturian society is very Terran in flavor, but a 'Western' style has been adopted to reflect the ranching and farming nature of the planet. Use of weapons against citizens is an execution offense, but common brawling is regarded as manly if one stops short of maiming or killing one's opponent. Hunting is much enjoyed, and virtually every household has a collection of archaic and modern weapons. It has been estimated that the planetary militia, the most popular 'club' on Arcturus, numbers almost 12,000,000 men and women, many of them avid hunters.

A good selection of big game and game bird animals have been introduced into the Arcturian environment. Exotic game preserves also exist, with off-planet animals brought in for specialized hunting. Needless to say, the tourist trade on Arcturus is a big industry, and a host of support industries – hotels, restaurants, gambling casinos, etc., have sprung up to service the tourists.

ASTERION III

StarSystem Coord.	1.CC.+15 Terran Sector GSC 14.JJ.+000
Stellar Primary	G2v main sequence star
FTL Conversion	10,000 LS
Planets in System	8
ASTERION III	Type 1 Terran Steppe Planet: 1 moon, 2 moonlets
Orbital Distance	495 LS (0.99 A.U.)
Length of Year	368 Terran days
Length of Day	23 hours 31 minutes
Planetary Diameter	10,000 km
Surface Gravity	0.76 G (dense)
Temperature Range	−60°C to 65°C
Atmosphere Type	Terran: 900mm, with 02 at 200mm; no unusual features are present.
Hydrosphere Type	40%: 7 land-locked seas and land-locked lakes, but no extensive oceans. Bodies of water are placed so that precipitation patterns rarely result in outright desert conditions. Almost 60% of the land area is in savanna or prairie.
StarNationality	UFP Associate Member
Sentient Race	Human Colonials/Pithecine Humanoid
Population	5,000,000 humans/15,000,000(?) Humanoids
Tech Level	Tech/9-10 humans/Tech/1-2 Humanoids
StarPort Rating	UFP StarPort B (Tech/10+ facilities)
Sociological Data	**Human Colonists**
Social Organization	Open Society
Societal Strength	7
Xeno Acceptance	15% prejudice
Government Type	Federation Colony
Government Support	34% (Vote = 55%)
Loyalty Index	64% (Revolt = 36%)
Repression Index	26% (anti-Kommanch)
Bureaucracy Level	Minimal
Corruption Index	17%
Law Level	1-5
Economic Rating	Rich Agricultural
Gross Productivity	MCR 37,500
Per Capita Income	CR 7500
Tax %/Levy	30% = MCR 11,250
Military Spending	15% = MCR 5625
Major Exports	food, gold, silver
Major Imports	Misc. equipment, parts
Trade Restrictions	UFP ban on trade with aboriginals except under license.
Trade Acceptance	50%
Sociological Data	**Asterion Kommanch Humanoids**
Social Organization	Primitive
Societal Strength	1
Xeno Acceptance	73% prejudice
Government Type	Tribal 'Anarchy'
Government Support	14% (Vote = 45%)
Loyalty Index	39% (Revolt = 61%)
Repression Index	10% (in tribe)
Bureaucracy Level	—
Corruption Index	12%
Law Level	1-5
Economic Rating	Very Poor Agricultural
Gross Producitivity	MCR 1875
Per Capita Income	CR 125
Tax %/Levy	—
Military Spending	—
Major Exports	furs
Major Imports	armaments
Trade Acceptance	20%

Conditions on Asterion III are similar to those on Terra, but seasons are particularly short, and winter conditions are restricted to the higher latitudes. There are extensive forest regions in the uplands but most of the land area is steppe, savanna, and desert. One of the continents is almost entirely desert, with only a narrow strip of well watered forestland along the eastern coast.

Animal life resembles that of the North American Plains of Terra, with hers of large hooved **TarnBison** roaming the grasslands. TarnBison are 'A' beasts massing 1200 kg, with 'F' hooves and fast movement. TarnBison range all of the plains, from the high latitudes down to tropical regions. The tropical and equatorial regions also exhibit lifeforms like those of Terra's African veldt, with most of the herds composed of 'J' and 'I' grazers and intermittent grazers (100 kg to 200 kg), with fast to fleet movement. None of these creatures is dangerous unless stampeded.

The only truly dangerous carnivore is the **TarnLeopard**, an 'I' feline massing 200-275 kg, armed with 'C' fangs and claws, and fleet of foot. TarnLeopards are individual stalker/ambushers but may readily turn into pack hunters running in groups of 7-12 when the herds are migrating. They are fearless but have sufficient intelligence not to charge modern weapons. Those tawny colored hunting cats are active both during the day and at night. TAken as cubs, TarnLeopards may be raised to become fiercely loyal pets and are used by the colonists as tracking animals and as watchcats. A somewhat larger 'H' (350 kg) variant dwells in the sub-polar and polar regions and is white rather than sandy colored.

The bulk of the population is engaged in ranching domesticated TarnBison or in growing grain crops in the rich, black soild of the plains. There is also a small trapping industry operating in the mountains, and the high latitudes. Although friendly toward human off-worlders, the colonials evidence a considerable xenophobia, no doubt the result of their long battle with the savage Kommanch natives, who raid their ranches and farms.

The **Kommanch** are Tech/1-2 Baboon-like Pithecines organized into tribal groups of 500-5000, much along the lines of the North American Plains Indians. The Kommanch are very warlike, prizing the warrior virtues. Kommanch are typically mounted on the **Theera**, the Asterion version of the Terran horse. The Theera is a 700 kg 'D' beast with 'F' hooves and is fleet of foot, with excellent endurance. Thus, the Kommanch natives have considerable mobility and are hard to contain when they break out of the Reserved Zones administered by the Contact Service. Contact Service personnel are largely recruited from Terran ethnic groups (Amerind) with similar customs and traditions, but they are continually overworked as they attempt to keep the Kommanch peaceful and to prevent mass genocide by the embittered colonists. (Almost 60% of the colonists believe that the only good Kommanch is a dead Kommanch.)

ATEN IV

StarSystem Coord.	2.FF.+00 Terran Sector GSC 14.JJ.+000
Stellar Primary	FOv main sequence star
FTL Conversion	10,000 LS
Planets in System	7

ATEN IV	Type 1 Terran Ocean Planet: 4 moons
Orbital Distance	300 LS (0.60 A.U.)
Length of Year	196 days
Length of Day	25 hours 05 minutes
Planetary Diameter	15,000 km
Surface Gravity	1.15 G (dense)
Temperature Range	−20°C to 55°C
Atmosphere Type	Terran: 2800mm (high), with 02 at 550mm (very rich). Humidity levels are high, with heavy precipitation.
Hydrosphere Type	93% = 4 small continents and innumerable islands and island archepelagoes.
StarNationality	UFP Affiliate: Indpendent Planet
Sentient Race	Canine
Population	250,000,000 Canines
Tech Level	Tech/8-9
StarPort Rating	Aten StarPort AAAAA Class 1 (Tech/9)
Social Organization	Open Society
Societal Strength	5
Xeno Acceptance	20%
Government Type	Republic
Government Support	30% (Vote = 74%)
Loyalty Index	88% (Revolt = 04%)
Repression Index	07%
Bureaucracy Level	Moderate
Corruption Level	01%
Law Level	6-9
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 2,500,000
Per Capita Income	CR 10,000
Tax %/Levy	30% = MCR 750,000
Military Spending	20% = MCR 500,000
Major Exports	vehicles, mech. parts, armaments, general tools
Major Imports	petrochemicals, industrial metals, food, wines
Trade Restrictions	Free Trade Policy
Trade Acceptance	57%

Aten IV provides a bit of a mystery, in that the Canine population is clearly not native to the planet, and yet there is no trace of their off-world origins in their history or in any other Canine planet's history known to the Federation. That these wolfish bipeds have fully adjusted to an aquatic environment is equally surprising. The Atenai are superb sailors, fishermen, and swimmers, and have developed marine technology to high levels. Since they opened contact with the Terran Union in 2288, they have evolved a heavily industrialized economy.

The Atenai are suspicious of strangers, but once they have determined to become friends, their hospitality and warmth are unparalleled in the Terran Sector. They have a special preference for Terran UFP personnel because they value honesty and uprightness of character and perceive that UFP personnel also share in that attitude. For that reason alone the highly independent Atenai have concluded a Treaty of Mutual Defense and Friendship with the Terran Union and the UFP.

Aten is relatively peaceful as a world, with few dangerous creatures other than the shark-like **Faasnati**, carnivorous fish which can be found in most of the oceans and seas of the planet. Conditions are generally very similar to tropical island paradises on Terra. At the same time, The Atenai themselves are very fierce and seem to enjoy war, possibly a genetic inheritance from their wolfish ancestors.

ATTAR III

StarSystem Coord.	1.EE.−25 Terran Sector GSC 14.JJ.+000
Stellar Primary	K2v/K3v binary main sequence stars
FTL Conversion	10,000 LS
Planets in System	9
ATTAR III	Type MS.2 Terran 'No Season' Planet: 0 moons
Orbital Distance	385 LS (0.77 A.U.)
Length of Year	210 days
Length of Day	23 hours 12 minutes
Planetary Diameter	20,000 km
Surface Gravity	1.25 G (moderate density)
Temperature Range	−50°C to 70°C
Atomsphere Type	Terran: 2000mm (high), with 02 at 200mm (slightly high). Atmospheric contaminants are present.
Hydrosphere Type	56% = 4 continents, with many landlocked seas and large lakes. Rather dry conditions along the equator.
StarNationality	UFP Affiliate: Independent Planet
Sentient Race	Humanoid
Population	500,000,000
Tech Level	Tech/7
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10+ fac.)
Social Organization	Police-State Dictatorships (former Open Soc.
Societal Strength	6
Xeno Acceptance	15%
Government Type	Multi-Government
Government Support	12% (Vote = 50%)
Loyalty Index	55% (Revolt = 40%)
Repression Index	25%
Bureaucracy Level	Moderate to High
Corruption Level	15%
Law Level	6-9
Economic Rating	Average Agricultural
Gross Productivity	MCR 1,750,000
Per Capita Income	CR 3500
Tax %/Levy	30% = MCR 525,000
Military Spending	15% = MCR 262,500
Major Exports	food, petrochemicals, industrial metals
Major Imports	high-tech products
Trade Restrictions	Free Trade Policy
Trade Acceptance	55%

Attar III is a planet about the same level of political and technological development as Terra was in its first days of space travel. The Attarians are equally divided into three superpoers, one of which is communistic, a second fascistic, and a third democratic-capitalistic. All three nations have thermonuclear weapons and an implacable hatred of each other. Contact Service personnel have defused the nukes with secret Xenon installations at the planetary poles, but conventional war threatens to break out yearly (loss of Vote = War on rolling at or under Revolt index level). Political loyalties in each nation are not overly enthusiastic, but fear of the pervasive security organizations prevents open resistance to the governments.

All governments are eager to trade with off-worlders and will accept any high-technology products which might give them a military advantage. However, while there is a free-trade policy on Attar III, UFP regulations forbit the importation of armaments above Tech/7 level. Since up to 200% premiums will be paid for advanced weapon systems by the Attarians, gun running is becoming a serious problem, and IPA patrols have been stepped up in the StarSystem. (Premium = +10.d20% above sale price for the smuggled arms.)

AVATAR III

StarSystem Coord.	1.JJ.+00 Terran Sector GSC 14.JJ.+000
Stellar Primary	G2v main sequence star
FTL Conversion	10,000 LS
Planets in System	7
AVATAR III	Type 13.8 Jungle Planet: 2 moons
Orbital Distance	300 LS (0.60 A.U.)
Length of Year	174 days
Length of Day	30 hours
Planetary Diameter	25,000 km
Surface Gravity	2.50 G (very dense)
Temperature Range	30°C to 80°C
Atmosphere Type	Terran: 3500mm, with 02 at 400mm. Concentrations of exotic gases may be encountered in some areas.
Hydrosphere Type	78% = 6 continents and many island archepelagoes. Tropical storms and hurricanes are common.
StarNationality	UFP Protectorate
Sentient Race	Human Colonials/MekPurr Colonials/Native AvatarFeline
Population	1,000,000 human/1,500,000 MekPurrs/15 million Meks
Tech Level	Tech/10+ Human/MekPurr
StarPort Rating	UFP StarPort C Class 3 (minimal Tech/10 fac.)
Social Organization	Open Society
Societal Strength	9
Xeno Acceptance	04%

Government Type	Republic
Government Support	31% (Vote = 78%)
Loyalty Index	78% (Revolt = 03%)
Repression Index	02%
Bureaucracy Level	Moderate, efficient
Corruption Level	02%
Law Level	1-5
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 150,000
Per Capita Income	MekPurr = CR 10,000, Colonial = CR 60,000
Tax %/Levy	30% = MCR 45,000
Military Spending	20% = MCR 30,000
Major Exports	luxury foods, wines, petrochemical, gems, gold
Major Imports	parts, vehicles, misc. equipment
Trade Restrictions	Free Trade Policy
Trade Acceptance	48%

Avatar III is a very hot Jungle Planet with conditions approximating those of the Terran Amazon Basin prevailing over most of the planetary surface. The equatorial regions are so hot and humid that personnel must wear protective tropical gear at all times to prevent heat prostration, while some of the insect-born fevers can incapacitate a man for weeks unless regular dosages of XAB Xeno-Antibiotics are administered. The animal life is startlingly similar to Terran jungle life, even to its appearance, and xenobiologists have discovered that it is of Terran stock! How this came to pass is a mystery.

The most dangerous life form is the Feline Avatar, a very powerful and highly intelligent (often psionic at level 1) being which has an almost supernatural ability to evade detection and capture. The Avatars clearly resent the human colonials and their plantations, and terrible raids are sometimes made by them against outlying farms and residences. Contact Service personnel have been powerless to stop the Avatar outrages. Recently, a wave of MekPurr colonists from Baast have arrived in response to a human colonial offer, and many humans and MekPurrs have gone into partnership, greatly boosting production with the extensive use of robotic and cybernetic equipment. The MekPurrs quickly became the target of the Avatar hatred of gadgets, and the MekPurrs have responded with their customary efficiency and ruthlessness, bringing in almost 2,000,000 War Robots to patrol their plantations and to hunt down marauding Avatars. When the Contact Service attempted to enforce the mandate of the UFP protectorate to stop the clearly genocidal intentions of the colonials, the MekPurr of Baast warned of dire consequences if the right of their people to defend themselves were interfered with by a UFP agency. This crisis continues to simmer unresolved.

BAAST III

StarSystem Coord.	2.DD.–30 Terran Sector GSC 14.JJ.+000
Stellar Primary	G1v main sequence star
FTL Conversion	10,000 LS
Planets in System	7
BAAST III	Type 1 Terran Standard Planet: 3 moons
Orbital Distance	550 LS (1.10 A.U.)
Length of Year	1.16 Terran years
Length of Day	21 hours 56 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.84 G (dense)
Temperature Range	–90°C to 65°C
Atmosphere Type	Terran: 1800mm (dense), with 02 at 225mm (high). Climate is congenial, but storms are severe.
Hydrosphere Type	72% = 8 small continents and several very large islands, with a number of island chains.
StarNationality	UFP Member Planet
Sentient Race	MekPurr Feline
Population	50,000,000 MekPurrs/1,000,000,000 Meks
Tech Level	Tech/10+
StarPort Rating	MekPurr StarPort AAAAA x 5 Class 1 (Tech/10+ facilities)
Social Organization	Open Society
Societal Strength	10
Xeno Acceptance	03%
Government Type	MekPurr Feudal Aristocracy
Government Support	60% (Vote = 69%)
Loyalty Index	90% (Revolt = 02%)
Repression Index	02%
Bureaucracy Level	Moderate, devastatingly efficient
Law Level	1-5
Economic Rating	Incredibly Rich Automated Industrial
Gross Productivity	MCR 20,000,000
Per Capita Income	CR 20,000/Mek = CR 400,000/MekPurr
Tax %/Levy	50% = MCR 10,000,000
Military Spending	40% = MCR 8,000,000
Major Exports	starships, parts, Tech/10 computers, robotic equipment
Major Imports	power metals, industrial metals, food, wines, luxuries
Trade Restrictions	Free Trade Policy
Trade Acceptance	60%

Baast III is a major center of MekPurr power in the Terran Sector. It is one of the most highly automated and wealthiest societies in the region, with a per capita income of almost CR 400,000 per MekPurr on the planet. Fully 40% of the considerable productive capacity of the planet is devoted to armaments, and the Baast squadrons of the StarFleet are renowned for the power of their warships. It is rumored that the Combat Robot strength of the Baast BattleForces is 10,000,000 (500,000 platoons) and over 250,000 armored vehicles. Few StarNations are more prepared for war.

The average education of a MekPurr of Baast is equivalent to that enjoyed by only 01% of most advanced planet$ populations. They typically are highly qualified scientists, computer techs, etc. Baast standards of living are unbelievably sumptuous and hedonistic by anyone else's standards, as might be expected. Society is organized on traditional feudal clan lines, with each pride led by a proven leader of good lineage. However, Baast government itself is democratic in that each pride has a voting delegate in the Council of Lords. For all intents and purposes, the result is a remarkably open society, with only manners and social status being prescribed by tradition. However, any MekPurr with merit and manners can be assured of advancement to his natural limits within the pride.

While evidencing very low xeno-prejudice levels, the MekPurrs are slow to make friends, as friendship involves commitments of a very involved and very total nature. At the same time, MekPurrs are quick to take offence at a slight or insult, never forget such an injury, and never, never forgive it.

CANOPUS V

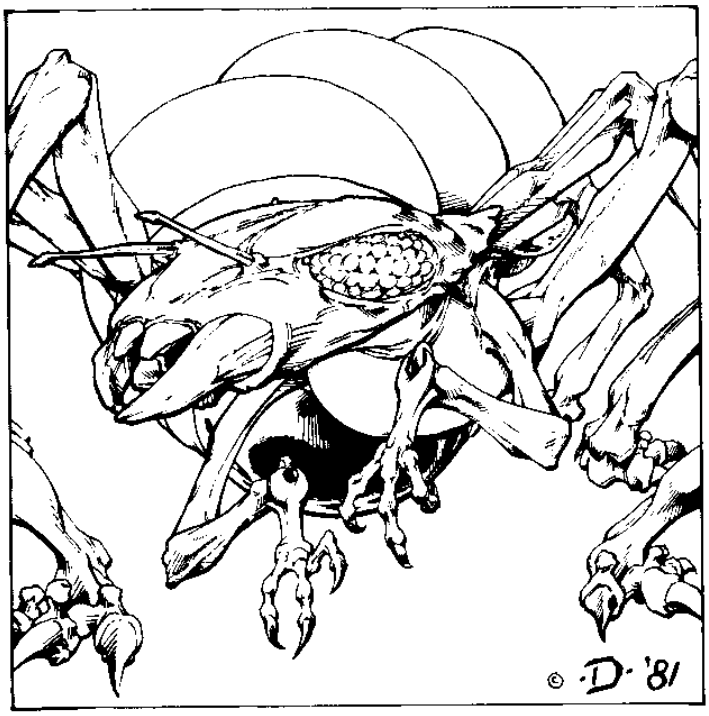
StarSystem Coord.	5.BB.–77 Terran Sector GSC 14.JJ.+000
Stellar Primary	FO ib-ii variable supergiant star
FTL Conversion	50,000 LS
Planets in System	11
CANOPUS V	Type VS.7 Jungle Planet: 1 moon
Orbital Distance	20,000 LS (40 A.U.)
Length of Year	50.6 Terran years
Length of Day	31 hours 20 minutes
Planetary Diameter	20,000 km
Surface Gravity	1.25 G (moderate density)
Temperature Range	25°C to 70°C
Atmosphere Type	Dense Terran: 1600mm with 02 at 200mm. Humidity levels are uniformly high, and may prove almost stifling at equatorial latitudes. Tropical storms are very severe, with extreme electrical acitivity and very heavy precipitation.
Hydrosphere Type	81% = 7 low-lying continents with innumerable islands, all of which are swampy. Seas are shallow and warm, with extensive arms inland.
StarNationality	UFP Affiliate: Indpendent Colony
Sentient Race	Human Colonials/remnants of 'Bug' and Klackon nests
Population	15,000,000 humans; others unknown
Tech Level	Tech/8 human; Bug/Klackon about Tech/3-4
StarPort Rating	Canopan StarPort B Class 2 (Tech/8 facility)
Social Organization	Aristocratic-Corporate Society
Societal Strength	4
Xeno Acceptance	25% (60% prejudice against insectoids)
Government Type	Corporate State
Government Support	15% (Vote = 59%)
Loyalty Index	38% (Revolt = 62% if major cirisis occurs)
Repression Index	62%

Bureaucracy Level	High, with savage repression of indentured laborers.
Corruption Index	20% (institutionalized graft)
Law Level	1-5 for citizens, but 16-17 for others
Economic Rating	Exceedingly Rich Agricultural
Gross Productivity	MCR 240,000
Per Capita Income	CR 16,000 (laborers = CR 1000-1500)
Tax %/Levy	20% = MCR 48,000
Military Spending	17% = MCR 40,000
Major Exports	Taafun root, Quoropa leaves, food products, gems
Major Imports	agricultural equipment, vehicles, parts, medicines
Trade Restrictions	Restricted importation of armaments
Trade Acceptance	20% (Company StarShips carry bulk of cargoes)

Canopus V is a hot, humid Jungle Planet with very lush plant life. The land masses are generally low-lying and poorly drained, resulting in an extensive swamp region on all continents. There are several upland areas which have cool climates similar to those of Terra's Hawaii.

Animal life forms are largely restricted to insectoid and crustacean types, all well protected by chitin or shells from G/G/G to C/C/D armor class. Such creatures may attain 'A' size (2000 kg), but most are under 'F' size (500 kg). All are armed with fearsome pincers and/or mandibles Life forms in the highlands are small and not especially dangerous, when compared to those of the lowland jungles and swamps. Most are average to fast in speed.

Canopan Mantis: Beast 'A' with D/D/E armor, massing 1000-2000 kg, and fast of movement; a stalker/ambusher armed with terrible 'A' class 'arms' with impaling spikes. Mantis are exceedingly voracious and attack prey on sight. They cannot be readily killed except by a head shot.



Thaaga Ants: Beast 'K' with F/F/G chitin armor, massing up to 50 kg and average in movement; a voracious omnivore dwelling in nests of 500-5000 and typically foraging in groups of 6-25. Thaaga Ants forage for plants and fungi, but will attack any animal forms that look like food.

Saaga: Beast 'I' with G/G/G armor, massing 200 kg and fast in speed; a spider-like insectioid which dwells in trees and snares prey with strands of sticky silk. They have poisonous mandibles which inject poison P-8 or P-13, producing a comatose condition leading to death within 72 hours. These lurkers blend in with the coloration of the foliage and are very hard to spot.

Sluugh: Beast 'I' with E/E/F armor, massing 150-200 kg and slow in speed on land, but very fast in water; a leech-like armored crustacean found in swampy regions. They attack with 'F' suckers and can drain a man of blood in several minutes. Smaller versions are also encountered.

Many other creatures abound, but the four outlined above are typical of the worst. In addition, there are groups of 'Bugs' and Klackons on the planet, the remnants of colonies which fought each other back to the 'stone age' before the coming of human colonists. The Bugs raid the outlying plantations and also vehicles or boats in isolated regions. Klackon raids are common in regions bordering on seas, lakes, and large rivers. Though a serious nuisance, these snetient savages do not have the technology to pose a grave threat. At the same time, the terrain is so horrendous that only a major campaign could eliminate them. And that is unlikely, for the local government is unwilling to invite a large UFP presence onto the planet.

Canopus V is marked by the repressive nature of its society. Dominated by the rich plantation owners and the trading companies, only about half a million enjoy the franchise. These tend to maintain solidarity in order to keep the huge indentured population in check, but since the coalition government is composed of numerous factions, a chance exists of serious instability in the face of a major crisis.

About 7,000,000 of the population is composed of indentured laborers under long-term contracts at low wages, long hours, and appalling conditions of work. They have largely been recruited from poor colony planets with the promise of opportunity and wealth. The chance of local revolt is high, but there is little unity amongst the workers. Thus, the chance of overthrowing the government is limited. Nevertheless, Canopan authorities take no chances and severely restrict possession and use of modern weapons to citizens, licensed visitors, and 'trustees' among the work force.

Federation authorities are disturbed by the lack of civil rights and fair treatment on Canopus V. An active underground 'slave tradé between Canopus V and other planets is suspected, and this is under investigation by the IPA. For the present, UFP is severely hampered because it has no authority on Canopus V, which is an independent colony.

Taafun root is the main cash crop (CR 2000/ton), a high-protein food which brings +3d6% returns on resale, in addition to usual food bonuses.

Quoropa leaves also grow on Canopus V and ahve been introduced in the last twenty years (see Regulus V for trade details).

CAPELLA V

StarSystem Coord.	6.DD.+32 Terran Sector GSC 14.JJ.+000
Stellar Primary	G8iii giant star
FTL Conversion	35,000 LS
Planets in System	10
CAPELLA V	Type 2 Terran 'No Season' Ocean Planet: 5 moons
Orbital Distance	6000 LS (12.00 A.U.)
Length of Year	10.73 Terran years
Length of Day	29 hours 17 minutes
Planetary Diameter	20,000 km
Surface Gravity	1.25 G (moderate density)
Temperature Range	−15°C to 50°C
Atmosphere Type	Terran: 725mm, with 02 at 175mm (normal). Humidity levels are moderate to high throughout the planet. In the fall season, powerful typhoons sweep the equatorial and tropical regions.
Hydrosphere Type	87% = 3 small continents and numerous islands.
StarNationality	Independent Planet: Former 'Lost Colony'
Sentient Race	Human Colonial/Humanoid
Population	7,500,000 humans/250,000,000 Capellan humanoids
Tech Level	Tech/9 human/ Tech/8 humanoid
StarPort Rating	UFP StarPort A Class 1 (Tech/10+ facility)
Sociological Data	**Human Colonials**
Social Organization	Open Society
Societal Strength	8
Xeno Acceptance	05% prejudice
Government Type	Republic
Government Support	28% (Vote = 67%)
Loyalty Index	64% (revolt = 08%)
Repression Index	08%
Bureaucracy Level	Minimal
Corruption Index	14%
Law Level	1-5

Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 93,750
Per Capita Income	CR 12,500
Tax %/Levy	30% = MCR 28,125
Military Spending	15% = MCR 14,000
Major Exports	food, luxury crafts, textiles, gems, petrochemicals
Major Imports	parts, vehicles, aircraft, misc. equipment
Trade Restrictions	Free Trade Policy
Trade Acceptance	45%
Sociological Data	**Capellan Humanoids**
Social Organization	Aristocratic
Societal Strength	5
Xeno Acceptance	12% prejudice
Government Type	Feudal
Government Support	21% (vote = 55%)
Loyalty Index	55% (revolt = 25%)
Repression Index	26%
Bureaucracy Level	Non-existent
Corruption Index	15%
Law Level	1-5
Economic Rating	Poor Agricultural
Gross Productivity	MCR 250,000
Per Capita Income	CR 1000
Tax %/Levy	30% = MCR 75,000
Military Spending	20% = MCR 50,000

Capella V was settled by a small colonial party of 5000 in 2081, but the colonizing vessel was lost on its return journey and the entire group was presumed lost. When the colony was next visited in 2152, it was found that the human colonials had struck a close bargain with the native Capellans (humanoids who closely resemble Terran orientals but are an average of two meters tall). The Capellan aristocracy was not desirous of joining the Terran Union or the Federation, as their practice of limiting the rights of their subjects is contrary to UFP policy. In effect, almost 28% of the population lives in virtual slavery, and another 50% enjoys only limited rights. Local revolts are common, but since full citizens are well armed, the rebels usually receive the worst possible fate. (It is a death offence for the N'Garka or 'Servants' to possess anything better than a Tech/3 weapon.)

Capellan N'Garka are known to have been 'sold' into indentured servitude on such planets as Canopus V. This 'slave trade' has been denounced by the UFP Assembly, and severe penalties have been set for UFP citizens engaged in the trade.

There are no dangerous life forms on Capella V, all of them being effectively eliminated on land before the human population even arrived. Several fish-like carnivores approach the size of small sharks, but these are only a minimal menace. Thus, Capella, with its mild seasons, is a very congenial environment.

CASTOR III

StarSystem Coord.	5.DD.+23 Terran Sector GSC 14.JJ.+000
Stellar Primary	A1v/A5v binary main sequence stars
FTL Conversion	10,000 LS
Planets in System	9
CASTOR III	Type MS. 10 Ice Planet: 1 moon
Orbital Distance	3750 LS (7.50 A.U.)
Length of Year	6.50 Terran years
Length of Day	26 hours 20 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.85 G (dense)
Temperature Range	−90°C to 30°C
Atmosphere Type	Terran: 850mm, with 02 at 200mm; very severe storms throughout winter period, which lasts up to 2.25 Terran years in high latitudes
Hydrosphere Type	77% = 5 continents and several archepelagoes. Over half of the land surface is under vast ice caps, and 35% of the seas are permanently frozen.
StarNationality	UFP Colony
Sentient Race	Human Colonials: former 'Lost Colony'/Feline Avatars
Population	1,000,000 humans/5,000,000(?) Avatars
Tech Level	Tech/9 human/Tech/3 Avatar
StarPort Rating	UFP StarPort B Class 2 (Tech/10+ facility)
Sociological Data	**Human Colonials**
Social Organization	Open Society
Societal Strength	6
Xeno Acceptance	18% prejudice
Government Type	Republic
Government Support	47% (vote = 75%)
Loyalty Index	82% (revolt = 08%)
Repression Index	09%
Bureaucracy Level	Moderately Light
Corruption Level	10%
Law Level	1-5
Economic Rating	Extremely Rich Industrial
Gross Productivity	MCR 31,500
Per Capita Income	CR 31,500
Tax %/Levy	30% = MCR 9450
Military Spending	16% = MCR 5000
Major Exports	rich furs, gold, silver, platinum, irridium
Major Imports	parts, misc. equipment, food, liquor
Trade Restrictions	10% import duty
Trade Acceptance	44%
Sociological Data	**Castoran Avatars**
Social Organization	Primitive
Societal Strength	2
Xeno Acceptance	45% prejudice
Government Type	?
Government Support	?
Loyalty Index	?
Repression Index	?
Bureaucracy Level	?
Corruption Level	10%
Law Level	1-5
Economic Rating	Poor Agricultural
Gross Productivity	MCR 3750
Per Capita Income	CR 750 (est.)
Tax %/Levy	–
Military Spending	–

Castor III is a typical Terran Ice Planet, with all regions subject to wintery conditions for at least part of the long 6.50 'year' period of revolution around the primary. Only the equatorial region enjoys a condition approaching 'summer', with frost-free weather for about 4.50 Terran years. Plant life has evolved into unusual types which continue to grow until temperatures attain −50°C, utilizing chemical compounds which keep tissue fluids in a liquid state (much like anti-freeze) and which unlock nutrients in the soil as the burrowing root tendrils slowly move in even frozen soil to gather essential minerals and water.

The animal life is starkly ferocious, but most are under 'K' size (50 kg) and have teeth suited more to nibbling plants than to killing (teeth are 'F' and 'G' weapons). All are average to fast in speed.

The deadliest native life form is an Avatar Feline, the **Caatah.** It is fast in movement but otherwise resembles a feline biped. In most areas, the Caatah rarely attain above Tech/3 levels of expertise and understanding, but they have an unholy capacity to comprehend anything that can act as a weapon and have been known to strip down, troubleshoot, repair, and fire with expert marksmanship a Mk. XX Blast*75 energy cannon after only a short explanation of the systems. Anything except a weapon system or 'useful' survival equipment is typically regarded as 'junk' by these independent 'savages' with IQ's bordering on genius levels.

Fortunately for the human miners of Castor III, the Caatah do not regard humans as food or as sporting game. Rather, they appear to adopt prospectors and fur hunters as almost beloved pets, and form close partnerships with them. In 2358, with a sudden invasion by the Azuriach Imperium, the Caatah joined with the human colonials to chew up three elite assault regiments of the Imperial Armored Infantry in a few scant weeks. That lesson has not been lost on others, and the planet has remained at peace ever since. Since there could be as many as 1,000,000 Caatah, the prospect of fighting a million Tech/10 warriors able to use any armaments that come to hand is a bit more than most would-be conquerors care to face for a mere 'iceball in space'.

CAPH III

StarSystem Coord.	7.EE.+39 Terran Sector GSC 14.JJ.+000
Stellar Primary	F2iv subgiant star
FTL Conversion	20,000 LS
Planets in System	12
CAPH III	Type 5 Terran No Seasons Planet: ringed
Orbital Distance	2700 LS (5.40 A.U.)
Length of Year	4.58 Terran years
Length of Day	25 hours 25 minutes
Planetary Diameter	20,000 km
Surface Gravity	1.50 G (dense)
Temperature Range	−85°C to 60°C (higher temperatures in flare period
Atmosphere Type	Terran: 2000mm, with 02 at 500mm (high). Radiation levels at RAD/1-2 in flare periods (05% chance/month)
Hydrosphere Type	80% = 5 large continents, 4 sub-continents, many islands. Rather high humidity and heavy precipitation.
StarNationality	UFP Member Planet
Sentient Race	Transhuman
Population	250,000,000 transhumans
Tech Level	Tech/10+
StarPort Rating	UFP StarPort AAAAA x3 Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	10
Xeno Acceptance	01%
Government Type	Athenian Democracy
Government Support	40% (vote = 65%)
Loyalty Index	99% (revolt = 00%)
Repression Index	00%
Bureaucracy Level	Minimal
Corruption Level	00%
Law Level	6-9
Economic Rating	Exceedingly Rich Industrial
Gross Productivity	MCR 25,000,000
Per Capita Income	CR 100,000
Tax %/Levy	30% = MCR 7,500,000
Military Spending	20% = MCR 5,000,000
Major Exports	high-tech parts, vehicles, aircraft, starships
Major Imports	industrial metals, chemicals, petrochemicals, food
Trade Restrictions	Free Trade Policy
Trade Acceptance	75%

The Transhumans of Caph III are clearly not native to the planet. Their history extends back some 23,000 years, including a long period of barbarism after they lost contact with the hated Starkaad who imprisoned them there for rebellion against a might StarEmpire as yet not encountered by the Federation. The Caphari are almost identical to humans and may intermarry, although there are subtle differences in facial features which betray their non-human status – especially their golden, cat-like eyes. Intellectually, the race is vastly superior to most, and a significant minority have psionic talents, usually level 1, but some are high level adepts. They are a brutally unemotional race, valuing logic and learning over 'animal sentiment', although they do respect such human feelings as compassion.

Conditions on Caph III are highly dangerous to even the Caphari, who dwell in underground city complexes to avoid the worst effects of the RAD/1-2 solar storms that sweep the planet. There is no animal life on Caph, other than in zoos, but plants of a particularly hardy and radiation-resistant nature fluorish in many regions. A number of these are used in the manufacture of Anti-Rad drugs.

The Caphari are among the most expert and efficient technologists in the Terran Sector, and their automated factories are surpassed only by those of the MekPurr. Although most earn CR 50,000 per year or more, Caphari tend toward a severely ascetic life, devoting most of their wealth to learning and research. In time of war, fully 75% of the planet s total production (MCR 18,750,000) is diverted to the war effort of the UFP, and the armed forces of the Caphari are superbly equipped and trained.

COBRA II

StarSystem Coord.	6.CC.−10 Terran Sector GSC 14.JJ.+000
Stellar Primary	k4v/k4v binary main sequence stars
FTL Conversion	10,000 LS
Planets in System	6
COBRA II	Type 2 Terran No Seasons Planet: 1 moon
Orbatal Distance	315 LS (0.63 A.U.)
Length of Year	150 days
Length of Day	32 hours 43 minutes
Planetary Diameter	20,000 km
Surface Gravity	1.50 G (dense)
Temperature Range	−25°C to 65°C
Atmosphere Type	Terran: 2500mm, with 02 at 400mm. Moderate weather, but tropical storms are very sudden and savage.
Hydrosphere Type	43% = Steppe Planet conditions, with land-locked seas and lakes. MOderate to low humidity and precipitation.
StarNationality	Independent Hisssŝ ist Planet
Sentient Race	Reptilian Hisssŝ istŝ
Population	20,000,000,000
Tech Level	Tech/8
StarPort Rating	Cobra StarPort AAAAA x 2 Class 1 (Tech/8)
Social Organization	Military Dictatorship: Caste System
Societal Strength	3
Xeno Acceptance	75% prejudice
Government Type	Military Junta
Government Support	19% (vote = 55%)
Loyalty Index	68% (revolt = 27%)
Repression Index	40%
Bureaucracy Level	Extremely High, with much red tape
Corruption Level	20%
Law Level	18
Economic Rating	Poor Industrial
Gross Productivity	MCR 60,000,000
Per Capita Income	CR 3000
Tax %/Levy	40% = MCR 24,000,000
Military Spending	35% = MCR 21,000,000
Major Exports	gold, silver, platinum, irridium, gems
Major Imports	food, raw resources, advanced tech goods and arms
Trade Restrictions	'Friends of the Hissss'ist'
Trade Acceptance	100%

Little is known about Cobra II, other than that it is one of the three Hisssŝ ist centers of power remaining in the Terran StarSector. There has been a significant build-up of Hissss'ist military forces of late, and BRINT strategic appreciations of the situation all suggest that the reptilians may intend another Land Grab like that of 2309-2338, which required almost 75 years of continual operations of the StarForces of the old Terran Union to reverse.

As in the case of all Hissss'ist planets, the Federation takes a very dim view of trade or any other form of contact by Federation citizens. The eternal hostility of the Hiss is well known. However, a growing number of renegades have sealed agreements with the Hiss to smuggle in preferred goods (high tech items at +10d10% premiums on usual sale prices) and vital raw resources and food. The Hissss'ist have chronic overpopulation problems and will pay very high prices for essential materials. The IPA and the Federation StarFleet maintain a close watch on suspected 'Friends of the Hisssŝ istŝ', for it has been learned that space pirates are fencing a good portion of their hijacked goods on Cobra II and other Hiss planets.

DARDANUS I

StarSystem Coord.	1.AA.+20 Terran Sector GSC 14.JJ.+000
Stellar Primary	MOv main sequence star
FTL Conversion	10,000 LS
Planets in System	5
DARDANUS I	Type 14 Terran Ice Planet: 1 moonlet
Orbital Distance	185 LS (o.37 A.U.)
Length of Year	101 days
Length of Day	30 hours 27 minutes
Planetary Diameter	12,000 km
Surface Gravity	0.92 G (dense)
Temperature Range	−100°C to 20°C
Atmosphere Type	Terran: 700mm, with 02 at 150mm. Violent snow storms are common in most regions, with high winds and driving snow (minimal visibility) at height of storm. Very severe polar conditions prevail over most of the planet, except for the equatorial zone.
Hydrosphere Type	70% = virtually all seas and oceans are ice-covered for at least part of the year, while massive ice caps cover 90% of the land surface.
StarNationality	UFP Colony
Sentient Race	Human Colonials (Terran and Lost Colony)
Population	250,000 Terran humans/750,000 Lost Colony humans
Tech Level	Tech/10 Terran humans/Tech/5 others
StarPort Rating	UFP StarPort C Class 3 (Tech/10 facility)
Sociological Data	**Terran Human Colonists**
Social Organization	Open Society
Societal Strength	6
Xeno Acceptance	06% prejudice
Government Type	Republic
Government Support	40% (vote = 65%)
Loyalty Index	90% (revolt = 01%)
Repression Index	03%
Bureaucracy Level	Moderate, efficient
Corruption Index	05%
Law Level	1-5
Economic Rating	Exceedingly Rich Industrial
Gross Productivity	MCR 8750
Per Capita Income	CR 35,000
Tax %/Levy	30% = MCR 2625
Military Spending	15% = MCR 1312.5
Major Exports	gold, platinum, gems
Major Imports	parts, misc. equipment
Trade Restrictions	Free Trade Policy, but no arms to Lost Colony
Trade Acceptance	55%
Sociological Data	**Lost Colony Society**
Social Organization	Anarchy
Societal Strength	2
Xeno Acceptance	20% prejudice
Government Type	Tribal Anarchy
Government Support	18% (vote = 55%)
Loyalty Index	55% (revolt = 45%)
Repression Index	30%
Bureaucracy Level	–
Corruption Index	15%
Law Level	1-5
Economic Rating	Poor Agricultural
Gross Productivity	MCR 375
Per Capita Income	CR 500
Tax %/Levy	–
Military Spending	–
Major Exports	furs
Major Imports	food, liquor
Trade Acceptance	25%

The original colonists of Dardanus I embarked from Terra in 2072, hoping never to see or hear from Terra again. However, in 2358, Dardanus was rediscovered by units of the StarFleet. The human colonists had sunk to Tech/1 savagery, and the planet was declared a Protectorate of the Terran Union. Terran colonists arrived over the next century to found a very efficient and prosperous mining industry, but for a long time they and the Contact Service were unable to do much to win over the religious fanatics of the Lost Colony. Only in the last 50 years has there been much success, and now many of the Lost Colony settlements have attained Tech/5 levels. However, they retain tribal government and social patterns, bitterly resisting any attempts to integrate them with the advanced culture or with other tribes.

The Terran colonists have to endure continual feuding and bickering among the Lost Colonials (known locally as Crazies) over obscure points of an unbelievably silly religion involving the use of psychedelic drugs and orgiastic ceremonies. At least one shooting incident occurs per month, precipitating a short, savage bloodbath between several of the tribes. Fortunately, after one serious incident which carried a blood feud into the mining center of Timmons, the resulting punitive expedition of the Terran miners into the territories of both the feuding tribes gave everyone an object lesson they could not forget. The feuds are now kept strictly outside the towns.

Recently, a man calling himself the Prophet has emerged as a unifying force among some of the more distant tribes. He preaches a Holy War against the unbelievers, and it is becoming feared that if he unites the tribes (a growing possibility), the fanatics would then turn on the mining colonies.

Conditions on Dardanus are very similar to those in the northern regions of North America on Terra. Most of the planet is either buried under ice caps, or else is open tundra plains or taiga forest. Animals tend to be good furbearers, but there are few predators other than a kind of wolf-like pack creature which avoids contact with humans. The Lost Colony tribes have adopted survival patterns similar to those of the Arctic Eskimos, complete with igloos and dogsleds, although the higher levels of technology recently available have seen some mechanization and an improvement of housing.

DENEBOLA V

StarSystem Coord.	3.EE.+11 Terran Sector GSC 14.JJ.+000
Stellar Primary	A3v main sequence star
FTL Conversion	10,000 LS
Planets in System	9
DENEBOLA V	Type 13.7 Terran Desert Planet: 1 small moon
Orbital Distance	1875 LS (3.75 A.U.)
Length of Year	2.65 Terran years
Length of Day	28 hours 40 minutes
Planetary Diameter	15,000 km
Surface Gravity	1.15 G (dense)
Temperature Range	30°C to 80°C (minus 10-25°C at night)
Atmosphere Type	Terran: 850mm, with 02 at 200mm (slightly rich). High silica dust content and very low humidity require use of filters. Sandstorms are common in the deep deserts and may be very powerful.
Hydrosphere Rating	Extreme desert conditions, with 02% standing water found at the polar oases. Precipitation is non-existent, but subterranean deposits of water exist.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials/Humanoid Teskanni Nomads
Population	10,000,000 humans/15,000,000(?) Teskanni
Tech Level	Tech/10 human; Tech/3-4 Teskanni
StarPort Rating	UFP StarPort A Class 1 (Tech/10 facility)
Sociological Data	**Human Colonials**
Social Organization	Open Society
Societal Strength	6
Xeno Acceptance	10% prejudice
Government Type	Republic
Government Support	44% (vote - 71%)
Loyalty Index	82% (revolt = 03%)
Repression Index	40%
Bureaucracy Level	Moderate
Corruption Index	09%
Law Level	1-5
Economic Rating	Very Rich Agricultural
Gorss Productivity	MCR 125,000
Per Capita Income	CR 12,500
Tax %/Levy	30% = MCR 37,500
Military Spending	20% = MCR 25,000
Major Exports	food, gems, gold, silver
Major Imports	parts, vehicles, arms
Trade Restrictions	UFP ban on armaments trade with Teskanni
Trade Acceptance	60%

Sociological Data	Teskanni Nomads
Social Organization	Primitive Tribal
Societal Strength	1
Xeno Acceptance	65% prejudice
Government Type	Tribal Anarchy
Government Support	?
Loyalty Index	? (revolt = 15%)
Repression Index	?
Bureaucracy Level	?
Corruption Index	20%
Law Level	1-5
Economic Rating	Poor Agricultural
Gross Productivity	MCR 13,125
Per Capita Income	CR 875
Tax %/Levy	—
Military Spending	—
Major Exports	gold, silver
Major Imports	general tools
Trade Acceptance	10%

Denebola V contains a dangerous desert environment, requiring personnel to wear StillSuits and filter equipment outside of sealed shelters. The high dust content of the atmosphere can prove damaging to hovercraft and other air-breathing vehicles. Although the atmosphere is breathable and contains adequate oxygen, sealed alien environments vehicles and grav sleds are best suited to the planetary conditions.

There are few native life forms dangerous to humans. The harsh desert environment has militated to direct evolution into small, adapted types for the most part. All are burrowing creatures, and most tend to be nocturnal. However, several are very efficient carnivores:

Denebolan Dragon: 'H' beast massing about 300 kg with A fangs and digging claws and fast in movement. The Dragons of Denebola are 5m reptilians vaguely resembling crocodiles of Terra. They are voracious omnivores but can exhiblit classic stalker/ambusher behavior when animal or human prey is available. They have claws capable of penetrating +3 armor (add +2 DM to weapon attacks), normally used to dig out roots and small prey, but also employed in combat with devastating efficiency. The D/D/F leathery hides of the creature also provide superb protection from many weapons. Only a solid head hit can destroy these tenacious life forms outright, all other parts of the body being relatively unaffected by wounds. Wounded Dragons are the most dangerous of all, for they will not rest until the assailant before them is dead.

Denebolan Thraaka: 'I' beast resembling a feline stalker/ambusher, with B fangs and claws and fleet movement. Thraaka are carnovorous, but occasionally graze on plants (it is suspected, to obtain water rather than nourishment). The creatures have tough F/F/H hides and cannot be readily dispatched unless a critical head or chest shot is made. Their tawny coats blend in perfectly with the terrain and they rarely are detected until they begin their rush.

Diń Arrka: K beast with F weapons and slow movement. Diń Arrka rarely attain more than 40 kg mass and seldom attack anything, for they are burrowing grazers. However, they can prove fierce when their burrows and tunnel complexes are invaded and they are brought to bay. Din'Arrka are particular nuisances because they raid crops at night and can do considerable damage. Some have been known to eat meat on occasion.

The standard riding animal of Denebola is the **Bá Nàthat, a D beast typically** massing 700-750 kg, with E weapons and fast movement. The creatures are intermittent grazers and can go for long periods without water. Their endurance and capacity to withstand the harshest desert conditions is legendary. Bá Nàthat are also burrowing creatures, despite their considerable size, but will tend to be found living in caves when such are present in the region. They resemble the wooly musk-ox of the Terran high Arctic, but their pelts are of limited value.

All Denebolan animals have an uncanny capacity to detect water at very great distances. Personnel riding Bá Nathat, for instance, can trust their mounts to proceed to water with almost unerring accuracy.

There is a surprising amount of plant life on Denebola, despite the arid conditions. Most are covered by very thick layers of tough fibers (from I/I/J to C/C/D armor class) and are protected by dense thorns or other features which dissuade grazers from nibbling at them. Those which are greenish-brown in color may be marginally edible, but a deep blue-grey color signifies plants which are definitely poisonous. Many contain a sack of milky fluid inside, which can be used for water in an emergency, though there is a 15% chance of intestinal cramps and severe stomach upset whenever such a drink is taken.

The human population of Denebola is engaged largely in farming, as there are deep deposits of water which may be tapped by artesian wells. Terran crops are grown hydroponically, in sealed shelters, and produce large amounts of food quickly in the intense sunlight. However, Denebolan animals do burrow into the shelters and can be most destructive. Also, a number of native plants prove to be excellent food producers and have been cultivated — notably the Verda plant, a cactus-like growth which provides both high-protein meal when the internal pulp is dried and ground, and strong fibers which are used in the manufacture of syntha-leather.

Denebolan farms are fortified against attack and are largely placed underground to insulate against the pervasive heat. Considerable reliance is placed on robotic equipment to augment the limited labor force. Specialists in mechanical and cybernetic maintenance receive a warm welcome and can obtain very high incomes.

The political life of Denebola is rather devoid of major issues. The chief functions of the government are to negotiate satisfactory trade agreements with other planets and to maintain the considerable Fast Reaction Force needed to relieve attacked farms before the hostile Teskanni raiders can sack and burn them.

The Teskanni nomads of Denebola are the biggest problem the human colonists have on the planet. These fierce humanoids occasionally sweep out of the desert wastes to attack and destroy isolated farms, then withdraw at high speed before the Fast Reaction Force can intercept them. The Teskanni are not of high technological development, but they have evolved good StillSuits armored by Thraaka hides (F/F/G protection) and readily learn how to use advanced armaments. Trade with the nomads is discouraged, and gun running is now a capital offense. However, the Teskanni have learned the value of gold and silver, and they painstakingly gather dust and nuggets wherever they can find them to trade for tools and especially weapons.

The mineral wealth of Denebola is only now coming to light. A very rich find of gold and silver, with lesser amounts of platinum and iridium, has been found in the relatively uninhabited equatorial region, precipitating an interstellar gold rush. Some gems have also been found. Industrial metals have been discovered as well, and Trans-Solar Metals is building a major mining and smelter complex to exploit the deposits.

40 ERIDANI II

StarSystem Coord.	6.EE.–02 Terran Sector GSC 14.JJ.+000
Stellar Primary	KOv/MOv/wd triple starsystem: main sequence stars
FTL Conversion	10,000 LS
Planets in System	6
40 ERIDANI II	Type 14 Terran Thin Atmosphere Planet: 1 moon
Orbital Distance	475 LS (0.95 A.U.)
Length of Year	285 days
Length of Day	20 hours 35 minutes
Planetary Diameter	7000 km (dense)
Surface Gravity	0.55 G (dense)
Temperature Range	–100°C to 25°C
Atmosphere Type	Thin Terran: 300mm with 02 at 75mm. Breathing apparatus will be required if strenuous exertion or climbing to any altitude above 1500m are contemplated. Atmosphere does not filter UV radiation, so sunburn can occur, and radiation levels rise to RAD/1-3 during intense sunspot activity (12% chance per month, with duration of 1-6 days)
Hydrosphere Rating	Little surface water, but there are extensive subterranean deposits, often close to surface
StarNationality	UFP Colony Outpost
Sentient Race	Human Colonials
Population	250,000 humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort C Class 2 (Tech/10 facility)
Social Organization	Colonial Administration
Societal Strength	7
Xeno Acceptance	09% prejudice
Government Type	Colonial Governor & Elected Council
Government Support	60% (vote = 62%)
Loyalty Index	74% (revolt = 07%)
Repression Index	02%
Bureaucracy Level	Minimal
Corruption Index	06%
Law Level	10-13
Economic Rating	Exceedingly Rich Industrial (mining)
Gross Productivity	MCR 62,500
Per Capita Income	CR 250,000
Tax %/Levy	30% = MCR 18,750
Military Spending	24% = MCR 15,000
Major Imports	misc. equipment, food, liquor, parts, vehicles
Major Exports	industrial metals, gold, silver, platinum, and irridium
Trade Restrictions	Free Trade Policy
Trade Acceptance	55%

The colony of 40 Eridani was established in 2093 as a mining establishment. The population reached its peak in 2140 and has remained steady ever since. The Forty-EEs, as the colonials call themselves, live in domed settlements and sealed quarters in outlying mining sites. There is no native animal life on the planet, and only rudimentary plants (lichens, mosses, etc.) grow in the warmer regions of the planet.

Life on Forty-EE is wide-open, fully reminiscient of boom-town mining communities of Terra's pioneer days in North America. There is plenty of room to spread out, and the richness of the mineral wealth on the planet offers opportunities for anyone to strike it rich. However, conditions on planet are harsh, and most soon leave after they arrive.

82 ERIDANI III (TYCHE)

StarSystem Coord.	6.EE.–14 Terran Sector GSC 14.JJ.+000
Stellar Primary	G5v main sequence star
FTL Conversion	10,000 LS
Planets in System	8
80 ERIDANI III	Type 1 Terran Standard Planet: 3 moons
Orbital Distance	415 LS (0.83 A.U.)
Length of Year	296 days
Length of Day	24 hours 08 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.84 G (dense)
Temperature Range	–60°C to 65°C
Atmosphere Type	Terran: 750mm, with 02 at 175mm (normal). Weather patterns very similar to those on Terra.
Hydrosphere Rating	74% = 6 major continents, 4 sub-continent sized islands, and several archepelagoes. Precipitation is adequate over most of the planet, with 19% of the surface in arid/desert wastes.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials/Tychan Canines
Population	10,000,000 humans/150,000,000 Canines
Tech Level	Tech/10 humans; Tech/9 Canines
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10)
Sociological Data	**Human Colonials**
Social Organization	Open Society
Societal Strength	10
Xeno Acceptance	02%
Government Type	Republic
Government Support	61% (vote = 65%)
Loyalty Index	88% (revolt = 01%)
Repression Index	03%
Bureaucracy Level	Moderate, efficient
Corruption Index	07%
Law Level	14-15
Economic Rating	Rich Industrial
Gross Productivity	MCR 150,000
Per Capita Income	CR 15,000
Tax %/Levy	30% = MCR 45,000
Military Spending	20% = MCR 30,000
Major Imports	high-tech parts
Major Exports	vehicles, aircraft
Trade Restrictions	Free Trade Policy
Trade Acceptance	60%

Sociological Data	**Tychan Canines**
Social Organization	Open Society
Societal Strength	7
Xeno Acceptance	05%
Government Type	Planetary Federation
Government Support	47% (vote = 61%)
Loyalty Index	79% (revolt = 02%)
Repression Index	05%
Bureaucracy Level	Moderate, efficient
Corruption Index	05%
Law Level	14-15
Economic Rating	Rich Industrial
Gross Productivity	MCR 1,350,000
Per Capita Income	CR 9000
Tax %/Levy	30% = MCR 400,000
Military Spending	20% = MCR 275,000
Major Imports	factory equipment
Major Exports	industrial metals, chemicals

The human colony of 82 Eridani was established in 2080. The Canines of 82 Eridani had already attained Tech/5 culture, and mutually satisfactory relations were opened between the two races from the first. Both have developed into prosperous industrial societies, although there is also a strong agricultural base which provides for all of the food requirements of the planet.

Tychan society is virtually identical to that of Terra.

Through an accident, some Terran plant and animal forms were released into the Tychan environment and proved to be more than a match for the native life. As the ecological imbalance grew, the decision was made to Terraform the planet before the crisis became severe. Terran plants and animals were therefore introduced on a carefully controlled basis, and today the planet appears to be a virtual twin of Terra. There are still some native life forms, but these tend to resemble Terran types and are not readily noticed by the uninitiated.

FORMALHAUT III

StarSystem Coord.	6.FF.–11 Terran Sector GSC 14.JJ.+000
Stellar Primary	A3v main sequence star
FTL Conversion	10,000 LS
Planets in System	10
FORMALHAUT III	Type 6 Terran Desert Planet: 1 moon
Orbital Distance	2000 LS (4.00 A.U.)
Length of Year	2.67 Terran years
Length of Day	35 hours 30 minutes
Planetary Diameter	5000 km
Surface Gravity	0.60 G (very dense)
Temperature Range	–20°C to 75°C
Atmosphere Type	Terran: 850mm, with 02 at 175mm (normal). Formalhaut is a hot star, producing high levels of radiation which have a 10% chance per month of flaring to RAD/3. Normal RAD/1 conditions prevail in equatorial and tropical areas in daylight hours. Dust content is normally at acceptable levels, but rises to 2500 mp/m^3 in high winds and duststorms (silica content). Respirators and anti-rad clothing are mandatory.
Hydrosphere Type	15% = several landlocked seas and a number of sizable lakes are found in higher latitudes, but tropical/equatorial regions are waterless. Humidity levels are normal in higher latitudes but are very low in desert areas.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	250,000,000 humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA x2 Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	9
Xeno Acceptance	05%
Government Type	Republic
Government Support	43% (vote = 84%)
Loyalty Index	95% (revolt = 01%)
Repression Index	01%
Bureaucracy Level	Moderate, efficient
Corruption Level	07%
Law Level	6-9
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 10,000,000
Per Capita Income	CR 40,000
Tax %/Levy	30% = MCR 3,000,000
Military Spending	20% = MCR 2,500,000
Major Exports	spacecraft, aircraft, vehicles, armaments, metals
Major Imports	food, wine, luxuries, petrochemicals, industrial chemicals
Trade Restrictions	Free Trade Policy
Trade Acceptance	75%

Formalhaut is a particularly hostile environment, but the very rich deposits of industrial and precious metals, thorium, and uranium have converted it into a major industrial center of the Federation. Over 250,000,000 humans now reside in the huge underground city complexes, many of them descended from the citizens of Luna and Terra's L-5 cities. Life styles and attitudes are very similar to those in the Solarian System.

There are no lifeforms on Formalhaut. The planet is dead except for the human colonies. The vast deposits of thorium and uranium produce a constant RAD/1 level of radiation, which can swell to RAD/3 during intense solar storms. Evidence exists that the primary star had bathed the planetary surface with as much as RAD/6-7 in the past. Personnel should wear first class radiation-shielded gear and filter respirators at all times.

HATHOR III

StarSystem Coord.	3.GG.+30 Terran Sector GSC 14.JJ.+000
Stellar Primary	KOv main sequence star
FTL Conversion	10,000 LS
Planets in System	7
HATHOR III	Type 1 Terran Steppe Planet: 0 moons
Orbital Distance	308 LS (0.615 A.U.)
Length of Year	203 days
Length of Day	28 hours 55 minutes
Planetary Diameter	10,000 km
Surface Gravity	0.63 G (moderate density)
Temperature Range	–35°C to 55°C
Atmosphere Type	Terran: 750mm, with 02 at 175mm (normal). Mild climate with very short winter period.
Hydrosphere Type	55% = 4 continents and 1 sub-continent: several seas are landlocked. Moderate humidity and precipitation.
StarNationality	UFP Colony (former Lost Colony)
Sentient Race	Human Colonials
Population	500,000 humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort A Class 2 (Tech/10 facility)
Social Organization	Open Society
Societal Strength	5
Xeno Acceptance	05%
Government Type	Republic
Government Support	23% (vote = 60%)
Loyalty Index	72% (revolt = 15%)
Repression Index	10%
Bureaucracy Level	Minimal
Corruption Level	14%
Law Level	6-9
Economic Rating	Rich Agricultural
Gross Productivity	MCR 5000
Per Capita Income	CR 10,000
Tax %/Levy	40%= MCR 2000
Military Spending	30% = MCR 1500
Major Exports	food, textiles
Major Imports	parts, general tools, misc. equipment
Trade Restrictions	Free Trade Policy
Trade Acceptance	25%

Hathor was founded in 2080 by a group of ranchers from the ancient Terran province of Texas. The planet exhibits characteristic grasslands and savannas, so common with most Steppe Planets, but there is heavy forestation in the uplands and along rivers and bodies of water. Few native life forms of any size had developed, most being similar to rodents of 5 kg mass or less. Terran animals and plants thrive on Hastor, and the bulk of the population is engaged in ranching and farming. Cattle, horses, and sheep thrive on the lush Hathorian grasses, while wheat, corn, and cotton yield exceedingly well in the deep, black soil.

Hathor III was cut of from Terra for a 90-year period between 2130 and 2220, but the reasons for the hiatus are not found in current Federation records. When contact was resumed, the colony was found to be thriving and eager to begin trading with food-hungry Terra. Hathor was occupied for a time during the Hiss Land Grab, but was relieved in 2331 by the 8th BattleFleet. During the period of occupation, the colonists fought a bitter and courageous guerilla war against the saurians, causing them to tie up many combat units which could have been better employed elsewhere. Since that time, the colonists have devoted a substantial portion of their gross planetary product to defense and are stout supporters of the Federation. It is estimated that over 60% of the male population and 30% of the female population serves at least two tours of service in the Federation Forces before returning home to a civilian life, so the planetary militia is well trained and led.

HELIOS IV

StarSystem Coord.	4.EE.–35 Terran Sector GSC 14.JJ.+000
Stellar Primary	GOv main sequence star
FTL Conversion	10,000 LS
Planets in System	8
HELIOS IV	Type 1 Terran Standard Planet: 7 moons & moonlets
Orbital Distance	630 LS (1.26 A.U.)
Length of Year	1.40 Terran years
Length of Day	24 hours 06 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	–60°C to 55°C
Atmosphere Type	Terran: 775mm, with 02 at 200mm (slightly rich). Conditions are almost identical to Terra.
Hydrosphere Type	79% = 7 major continents, 2 very large islands, and numerous archepelagoes. Most of the planet receives adequate precipitation.
StarNationality	UFP Member Planet: former Lost Colony
Sentient Race	Human Colonials
Population	50,000,000 humans
Tech Level	Tech/9-10
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10)
Social Organization	Open Society, with age restrictions
Societal Strength	5
Xeno Acceptance	05% in urban areas; 25% in rural regions
Government Type	Restricted Democracy: Republic
Government Support	19% (vote = 55%)
Loyalty Index	74% (revolt = 10%)
Repression Index	28% (youth minority)
Bureaucracy Level	Moderate to High, with much red tape
Corruption Level	18%
Law Level	18
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 600,000
Per Capita Income	CR 12,000
Tax %/Levy	30% = MCR 180,000
Military Spending	20% = MCR 120,000
Major Imports	agricultural equipment, parts, vehicles
Major Exports	food, wines, liquor, luxury crafts, petrochems
Trade Restrictions	10% import duty on non-preferred items
Trade Acceptance	75%

Helios IV is a planet that closely resembles Terra and, except for the spectacular procession of its 7 moons, can be taken for a twin of the Home Planet. Many Terran plants and animals have been introduced into the environment and have competed very successfully with native forms. The environment is congenially free of serious diseases, while the most dangerous animal is comparable to the Terran coyote in size and habits.

Life on Helios IV is idyllic and peaceful to the point of boredom for action-minded individuals. The society is circumscribed by quaint customs and folkways, reflecting the status-quo mentality of the older generations who dominate the social order. Peace and quiet are the most valued aspects of Helian culture, and manners require a minimum of disturbance of others. Boisterous or uncouth behavior is frowned on, and disturbing the peace is an offence carrying fines of up to CR 500. Violence is utterly taboo as a means of settling disputes, while murder and armed robbery are unthinkable (the last conviction of a Helian for such crimes occured in 2479, some 71 years ago).

Political parties are numerous, with the government being formed by coalitions of like-mined factions. There is little, in fact, to choose between them. The dominant coalition is the Farmers' Union, typically opposed by the Popular Alliance Parties. Both FU and PAP are highly conservative in their views and opt for maintaining the comfortable status quo. Despite their resistance to change, the elders are intensely loyal to the Federation and give substantial support to their Federation commitments.

The youthful population (those under 30 Helian years of age or 42 Terran years) is considered to be in the position of 'minors' and has only limited rights. Until they reach majority, Helian youths are subject to parental control and discipline. Marriages and careers are arranged by their parents, often without reference to the desires of their offspring. They can override the decisions of their children as well, having recourse to the courts to enforce their will. Considering that many youths in fact occupy positions of considerable responsibility in the business, government, and military sectors of society, such treatment appears ludicrous to the outsider. However, it has been the custom since the founding of the colony in 2084, and almost 500 years of tradition is hard to break.

A growing number of the youth population is becoming restive under the domination of their elders. The Youth Action Party now enjoys the support of 36% of the population under thirty. YAP has been agitating quite vocally for extension of the franchise to younger citizens and severe curtailment of parental authority. In recent years the REVOLT INDEX has risen to 10% and is continuing to increase at +1% to +3% per year. In an event of serious political crisis, which is marked by indecisiveness and failure to act promptly on Helios, an armed uprising is possible. Since 91% of the armed forces are youths, half of whom are YAP sympathizers, a military coup grows ever more likely.

Recently, an ultra-radical faction of YAP has emerged. The Youths Against Helian Oppressive Oldsters has escalated the situation into open and noisy confrontation. The politicians of FU and PAP regard the YAHOOS as a grave threat to peace, quiet and good government, and have passed restrictive laws to prevent their public demonstrations, petitions, and other acts of disrespect for traditional Helian life. It is now apparent that some members of YAHOO have established secret cells devoted to the armed overthrow of the government. They are arranging for the illegal importation of military armaments, and off-planet student activists have arranged 'vacations' to instruct them in the commission of acts of terrorism and political sabotage.

BRINT and BOSS assessments of the situation indicate that revolution is inevitable on Helios IV on the close order of 20 years, with 10 years being the most likely. UFP security agents have been stationed on Helios to counter subversive activities by agents of the Galactic Peoples Republic and the Azuriach Imperium, who are attempting to turn the legitimate grievances of the Helian youths to more sinister purposes. Thus, in the middle of what is still an almost laughable situation, a secret war is being waged. Some 53 UFP agents have been eliminated by their Azzie and GPR opponents, and a like number have been removed from the enemy's muster rolls.

HORUS IV

StarSystem Coord.	3.AA.+90 Terran Sector GSC 14.JJ.+000
Stellar Primary	M7iii/M5v binary giant and main sequence stars
FTL Conversion	35,000 LS
Planets in System	11

HORUS IV	Type 14 Terran Ice Planet: 2 moonlets
Orbital Distance	7000 LS (14.00 A.U.)
Length of Year	11.71 Terran years
Length of Day	38 hours 17 minutes
Planetary Diameter	15,000 km
Surface Gravity	1.15 G (dense)
Temperature Range	−110°C to 10°C
Atmosphere Type	Terran: 2250mm (dense), with 01 at 325mm (rich). Surface conditions are brutally cold and stormy.
Hydrosphere Type	74%, with all seas frozen and the whole of the land masses covered by ice caps.
StarNationality	UFP Colony (Baast colonials)
Sentient Race	MekPurr Feline Colonials
Population	250,000 MekPurrs/2,500,000 Meks
Tech Level	Tech/10
StarPort Rating	MekPurr StarPort AAA Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	9
Xeno Acceptance	08%
Government Type	MekPurr Feudal Aristocracy
Government Support	47% (vote = 69%)
Loyalty Index	82% (revolt = 08%)
Repression Index	01%
Bureaucracy Level	Minimal, very efficient
Law Level	1-5
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 25,000
Per Capita Income	CR 10,000/Mek = CR 100,000/ MekPurr
Tax %/Levy	50% = MCR 12,500
Military Spending	40% = MCR 10,000
Major Exports	power metals, electronic & computer parts
Major Imports	food, wines, luxuries, industrial metals, petrochemicals
Trade Restrictions	Free Trade Policy
Trade Acceptance	45%

Horus IV was founded by MekPurr colonists from Baast in 1852 (Terran calendar). In 2020 it was granted the status of a Mm'Tai (equivalent to a Terran duchy) and quasi-independent powers. When the home planet joined the UFP in 2410, Horus followed.

The planet is tamed, as are most MekPurr worlds, with all annoying wildlife eliminated in the regions inhabited by the MekPurrs. Since these included a number of exceedingly ferocious carnivores, survival around the domed MekPurr cities is a matter of withstanding the cold weather conditions. However, there is little doubt that the hinterland still holds significant numbers of fur-bearing creatures, including some of the toughest carnivores known. Unfortunately, the memory banks containing profiles of the wildlife encountered earlier have been wiped to open them for other uses. The hinterland is thus to be regarded as a big questionmark, full of unpleasant surprises.

HYPERION III

StarSystem Coord.	2.II.−60 Terran Sector GSC 14.JJ.+000
Stellar Primary	G6iv subgiant star
FTL Conversion	20,000 LS
Planets in System	11
HYPERION III	Type 2 Terran No Seasons Planet: 1 moonlet
Orbital Distance	1520 LS (3.0 A.U.)
Length of Year	2.70 Terran Years
Length of Day	25 hours 46 minutes
Planetary Diameter	10,000 km
Surface Gravity	0.75 G (dense)
Temperature Range	−75oC to 60°C
Atmosphere Type	Terran: 700mm, with 02 at 190mm (slightly rich). Humidity and precipitation levels are at Terran standard.
Hydrosphere Type	72% = 5 major continents and 6 island archepelagoes. Polar and sub-polar regions are under ice caps.
StarNationality	Independent Human Planet (was Lost Colony)
Sentient Race	Human Colonials
Population	50,000,000
Tech Level	Tech/8
StarPort Rating	Hyperion StarPort AAA Class 1 (Tech/8)
Social Organization	Religious Caste Society
Societal Strength	2
Xeno Acceptance	68% prejudice = highly xenophobic
Government Type	Religious Dictatorship
Government Support	19% (vote = 51%)
Loyalty Index	93% (revolt = 05%)
Repression Index	49%
Bureaucracy Level	Pervasive Church Hierarchy
Corruption Level	17% (high officials); 05% (low officials)
Law Level	14-15
Economic Rating	Average Agricultural
Gross Productivity	MCR 75,000
Per Capita Income	CR 1500
Tax %/Levy	50% = MCR 37,500
Military Spending	27% = MCR 20,000
Major Imports	agricultural equipment, misc. tools & equipt.
Major Exports	food, textiles, fur
Trade Restrictions	No wine, liquor, tobacco, narcotics, etc.
Trade Acceptance	25%

Hyperion III wuperficially resembles Terra, but differences become quite noticeable after a short time. The plant life, for example, has a faintly blue-green hue. Several plants have strong narcotic effects, notably the Jooba plant and the Kopja weed. (These are forbidden for use by the planetary government and are destroyed whenever found. But Jooba buds and Kopja leaves can be obtained illegally at about CR 50 per kg and may be resold on the black market for 25.d20% of their purchase value. Possession of the narcotic plants is punishable by life at hard labor on Hyperion III.)

Animal life is comparable to Terran life forms in general appearance and size. There are few dangerous predators now, but a few of the fierce **SlaanTigers** (Beast H at 275-350 kg, with C fangs and claws, and fleet movement) can be encountered in the wilderland forest regions. They are virtually immune to drugs, poisons, and stunner fire, while their high shock resistance (CR 19) makes a killing shot a vital necessity. Some Contact Service experts suggest that SlaanTigers are really Avatar felines, of definitely high intelligence and perhaps also possessing PSI powers. It remains a fact that the locals have been quite unable to wipe them out and have a pathological fear of them that is not at all normal. They cast the creatures in the role of local servants of the Devil, and organize huge hunting sweeps to rid entire counties of their presence. They also encourage off-planet hunters to try their luck on these stalker/ambushers, which some have indeed done in the hope of collecting the CR 1000 x 2d6 that a SlaanTiger pelt commands in Terran high-fashion circles, not to mention the standing Hyperion bounty of CR 2000 per beast.

The SlaanTiger trade is regarded with deep suspicion by the Contact Service, for the creatures may be sentient. However, since Hyperion is an independent planet, they can take no steps to protect the creatures in their native habitat.

Hyperion society is itself fanatically religious and exhibits an open and deep mistrust of all non-believers from off-planet. The Proctors of the Universal Church of the Most High keep everyone under constant observation, alert for deviant and heretical behavior. Personnel are advised to acquaint themselves fully with the many puritannical rules of conduct before venturing into Hyperion society. Possession or use of alcoholic beverages, tobacco, narcotics, or even Terran coffee and tea, are all regarded as heinous vices and will bring quick and stern punishment by the local authorities. Similarly, discussion of off-planet attitudes, distribution of any kind of unapproved literature, and other like behavior are considered to be offences under Hyperion Canon Laws of Heresy. Male personnel are especially cautioned against approaching the females of Hyperion for social reasons, as local courtship customs forbit adultrous behavior, which includes even being alone with an unattended female of marriageable age. In brief, personnel should avoid the slightest breach of decorum and propriety. As no protocols exist to protect offenders, personnel are at their own risk once inside Hyperion jurisdiction.

There are no political parties as such on the planet, as only members of the clergy and lay brothers have any political influence. Factions of the ruling hierarchy of the Universal Church are locked in an eternal power struggle, with political issues revolving around fine points of religious interpretation. The Government Vote in the High Council of Elders is at a precarious 51%, so change of leadership is likely in a major

crisis. The Revolt Index represents the chance that there will be an internal coup by a rival faction in such an instance. But the populace itself, though deeply repressed, is fanatically loyal to the Church and to the idea of theocratic government. Thus, a general uprising is highly unlikely (02%).

KEPHRE II

StarSystem Coord.	1.HH.–80 Terran Sector GSC 14.JJ.+000
Stellar Primary	K3iv subgiant star
FTL Conversion	20,000 LS
Planets in System	9
KEPHRE II	Type 1 Terran Standard Planet: 1 moon
Orbital Distance	1250 LS (2.50 A.U.)
Length of Year	3.06 Terran years
Length of day	23 hours 15 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.70 G (moderate density)
Temperature Range	–65°C to 60°C
Atmosphere Type	Terran: 700mm, with 02 at 175mm (normal). Weather and climatic patterns similar to Terra's.
Hydrosphere Type	75% = 5 continents, 1 sub-continent, and 7 large archepelagoes. Good precipitation patterns.
StarNationality	UFP Protectorate
Sentient Race	Humanoid
Population	500,000,000
Tech Level	Tech/5-6
StarPort Rating	UFP StarPort A Orbital Class 1 (Tech/10+)
Social Organization	Open Society/Socialist Society/Communist Society
Societal Strength	4
Xeno Acceptance	45%
Government Type	Multi-Government
Government Support	20% (vote = 50%)
Loyalty Index	46% (revolt = 30%)
Repression Index	30%
Bureaucracy Level	Moderate to High
Corruption Level	12%
Law Level	14-15
Economic Rating	Average Agricultural
Gross Productivity	MCR 1,025,000
Per Capita Income	CR 2050
Tax %/Levy	30% = MCR 307,500
Military Spending	14% = MCR 145,000
Major Exports	–
Major Imports	–
Trade Restrictions	Tech/6-7 technology items under UFP license
Trade Acceptance	35%

Kephre II is a planet at a stage of development similar to Terra in the mid-twentieth century. The population is bitterly divided over political and economic issues, with almost 50 separate nation states. War between them is highly likely at any time. Nuclear research is proceeding in the most advanced (Tech/6) nations, and atomic weapons will likely be developed at any time. Contact Service personnel have secretly placed planetary Xenon generators at the poles and will switch on the damping fields once essential early nuclear tests are completed and the various nations have acquired the data needed for development of advanced nuclear technology. Restricted contact is allowed with the faintly blue-hued humanoids of Kephre, but trade is severely regulated and must pass through the orbital fortress in L-5 position. A reinforced regiment of Marines is available for action on the surface if required, supported by the 65th Cruiser Squadron.

KULTIS V

StarSystem Coord.	6.AA.–45 Terran Sector GSC 14.JJ.+000
Stellar Primary	M6iii giant star
FTL Conversion	35,000 LS
Planets in System	10
KULTIS V	Type 2 Terran Steppe Planet: 2 moonlets
Orbital Distance	10,000 LS (20.00 A.U.)
Length of year	20.0 Terran Years
Length of day	28 hours 57 minutes
Planetary Diameter	1.50 G (very dense)
Temperature Range	–55°C to 75°C
Atmosphere Type	Terran: 1500mm (high), with 275mm 02 (high) Dust storms are common in desert areas.
Hydrosphere Type	34% = landlocked seas and lakes. Humidity and precipitation are low in most regions.
StarNationality	Independent Hissss'ist Planet
Sentient Race	Reptilian (Hiss)
Population	5,000,000,000
Tech Level	Tech/8
StarPort Rating	Kultis StarPort AAAAA Class 1 (Tech/8)
Social Organization	Military Dictatorship/Caste Society
Societal Strength	4
Xeno Acceptance	60% prejudice
Government Type	Military Junta
Government Support	20% (vote = 59%)
Loyalty Index	70% (revolt = 20%)
Repression Index	45%
Bureaucracy Level	Extremely high, with much red tape
Corruption Level	20%
Law Level	18
Economic Rating	Poor Agricultural
Gross Productivity	MCR 5,625,000
Per Capita Income	CR 1500
Tax %/Levy	40% = MCR 225,000
Military Spending	35% = MCR 200,000
Major Exports	food, industrial metals, power metals, gold
Major Imports	advanced tech goods and armaments
Trade Restrictions	Friends of the Hisssssist
Trade Acceptance	100%

As is the case for most Hiss planets, little is known about conditions on Kultis V. The planet was, at one time, a Lost Colony, but the Hiss Land Grab of 2309-2338 swallowed it up. Nothing is known of the fate of the original human colonists, but it is now suspected by BRINT and BOSS that some were spared by the conquerors and their descendants have been enlisted as renegades to pursue Hiss goals in human-controlled space. Certainly, several bands of space pirates and a number of espionage agents appear to have been in close contact with the Hiss for some time. (See notes for Cobra II.)

LARVA III

StarSystem Coord.	9.FF.–90 Terran Sector GSC 14.JJ.+000
Stellar Primary	G1v main sequence star
FTL Conversion	10,000 LS
Planets in System	8
LARVA III	Type 1 Terran Steppe Planet: 1 moon
Orbital Distance	150 LS (1.00 A.U.)
Length of year	1 Terran year
Length of day	27 hours 48 minutes
Planetary Diameter	15,000 km
Surface Gravity	1.15 G (dense)
Temperature Range	–55°C to 70°C
Atmosphere Type	Terran: 900mm, with 02 at 175mm (normal). Heavy atmospheric contaminants (chemical warfare residue).
Hydrosphere Type	32% = landlocked seas, contaminated.
StarNationality	Independent Planet: Bug Hive World
Sentient Race	Larvae (Bug)
Population	10,000,000,000(est.) = 1,000,000,000 warriors
Tech Level	Tech/8
StarPort Rating	StarPort AAAAA x3 Class 1 (Tech/8 facilities)
Social Organization	Larvan Hive
Societal Strength	10
Xeno Acceptance	100% prejudice: instant attack
Government Type	Hive Mind
Economic Rating	Poor Industrial
Gross Productivity	MCR 35,000,000
Per Capita Income	CR 3500/Worker
Military Spending	50% = MCR 17,500,000

Larva III is the headquarters planet of the Bug presence in Terran space. The planet was attacked seven times during the Bug Raids of 2281-2310, but the insectoids had massive defense in depth and repelled each attack with heavy losses on both sides. The planetary surface is contaminated with chemical warfare materials, and several regions have radiation levels as high as RAD/9 from thermonuclear strikes scored when the 255th Regiment (Mobile Infantry) succeeded in seizing and destroying the planetary Xenon generators during the Fourth Battle of Larva (2296). The vast number of defenders present on the planet is only now fully recognized. The Federation 10th BattleFleet remains on regular station in the region at Alpha Red status (War Alert Immanent) to counter any major Bug offensive movements. Personnel of all races are advised to avoid the starsystem and to stand to battle stations when in this region of the StarSector, for Bug patrols are heavy and utterly hostile.

LEONIDAS II

StarSystem Coord.	4.DD.+60 Terran Sector 14.JJ.+000
Stellar Primary	G5v main sequence star
FTL Conversion	10,000 LS
Planets in System	7
LEONIDAS II	Type 1 Terran Tundra Planet: 1 moon
Orbital Distance	450 LS (0.90 A.U.)
Length of year	334 days
Length of day	28 hours 10 minutes
Planetary Diameter	12,000 km
Surface Gravity	0.92 G (dense)
Temperature Range	−100°C to 35°C
Atmosphere Type	Terran: 725mm, with 02 at 125mm (lower than normal). Winter storms are especially savage.
Hydrosphere Type	78% = 4 continents and 8 large islands. Ice caps cover polar and middle latitudes.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials/Leonidan Canines
Population	5,000,000 humans/30,000,000 Waaurf
Tech Level	Tech/9-10
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10)
Social Organization	Highly Open Society
Societal Strength	9
Xeno Acceptance	01% prejudice = highly tolerant
Government Type	Republic
Government Support	52% (vote = 85%)
Loyalty Index	91% (revolt = 06%)
Repression Index	04%
Bureaucracy Level	Minimal, and very, very efficient
Corruption Level	01%
Law Level	1-5
Economic Rating	Exceedingly Rich Industrial (mining)
Gross Productivity	MCR 1,050,000
Per Capita Income	CR 30,000
Tax %/Levy	40% = MCR 400,000
Military Spending	30% = MCR 300,000
Major Imports	parts, vehicles, factory equipment, tools, arms
Major Exports	industrial metals, power metals, gold, furs
Trade Restrictions	Free Trade Policy
Trade Acceptance	50%

Leonidas II is a Terran Standard Planet in the late stages of a severe Ice Age. When human colonists arrived in 2083, they discovered primitive wolf-like bipeds in Tech/1 tribal societies. Friendly relations were opened and over several centuries, the Canines were brought along to finally stand as equals with humanity. By the time of the Bug raid of 2297, the Human/Canine population had united into a single culture. They fought valiantly against the insectoids, though outgunned and even outnumbered at one point, when a second wave of Bugs arrived in 2299. Relieved by the 5th Terran BattleFleet in 2302, the Leonidans were reduced to only 11,000,000, only 28% of the former population.

Since that time, human and Waaurf have worked to restore the planet. Leonidas is a model of peaceful co-existence and co-operation between sentient races. Indeed, the planet is noted for being the first Terran colony to extend the franchise to a non-human race (2269), and was the first to elect a non-human president (2303), in the person of the great war hero, BattleForce Leader Harru Grawlurff of the Arkla Pack.

Recently, Leonidas II has embarked on an ambitious program to develop the considerable mineral and petroleum resources of the planet. A wide range of metals, some petroleum, and petrochemicals are available for trade, in addition to furs amongst the finest in the sector. In the last election, 89% of the electorate voted to increase the tax rate so as to improve the already superbly trained and equipped armed forces of Leonidas. The planet is a staunch supporter of the UFP, and has a particular dislike of the racist Azuriach Imperium.

A large portion of the planet is still untouched wilderness, a situation preferred by most of the population. The equatorial region has some deciduous forests, but these rapidly give way to evergreen woodlands and taiga as one moves into the middle latitudes. Animal forms are characteristically superb fur-bearers, and hunting and trapping forms a significant part of the planetary economy. Indeed, the animal life is exceedingly bountiful. Beasts of special note are:

Leonidan SnowCaat: A huge D Beast of 700 kg with A weapons and fleet movement, the SnowCaat is a ferocious stalker/ambusher which can be found in the evergreen forests and into the vast snowfields and mountain uplands that pervade much of Leonidas. It is the Leonidan version of the Terran SabreTooth, but is far more intelligent and cunning. It sometimes hunts in packs of 2-7, but also goes solitary. It is a master of ambush (55% chance of not being spotted, despite the nature of detection gear used), its coat changing with the seasons and the temperature to blend in with the landscape. The irridescent silvery pelt of its winter coat is worth CR 250 x 3d6, the shorter spotted coat of summer is worth about 35% of that amount.

Thaurruf: A Yeti-like anthropoid of the fnow fields and high mountain areas, the Thaurruf is a voracious omnivore of H size (350 kg average) with F or E weapons and average speed. Thaurruf are typically solitary but sometimes appear in small family groups. It sometimes bears a club, but Contact Service anthropologists confirm that it is not sentient. Pelt Value is CR 100 x 2d6 in winter, and 50% of that in summer.

Akka Tharrlu: A small but wolfishly cunning and savage J beast of 100 kg mass, with E weapons and fleet movement, the Akka Tharrlu is a canine resembling the Terran collie. The Akka is a pack hunter and runs in groups of 11-20. A persistent tracker, it will trail its prey for many kilometers before bringing it to bay. The creatures roam the high forests and the edges of the snow fields. Pelt Value is CR 25 x 1d6, but live cubs bring CR 25 x 3d6, as they can be domesticated and raised as dogs and are much prized by the Leonidans.

Tekka Nuu: A K beast of 40-65 kg mass, with E weapons and fast movement, the Tekka is a wolverine-like animal which intimidates larger beasts of prey and proves to have the advantage in most fights because of its lightning movements and mindless savagery in combat. It is a superb climber and often lays in wait in trees as a lurker, waiting

for prey to come by. It will attack human sized animals instantly from close ambush, without warning. Pelt Value is CR 20 x 3d6 in winter, but almost valueless in warm seasons.

M'Raaugh: A huge B sized ursoid of up to 950 kg mass, with B weapons and average movement, the M'Raaugh is every centimeter the equal of the most fearsome cave bears of the Terran Ice Ages. It is an omnivore, but will intimidate other beasts or even kill its own prey if the opportunity arises. It is found in the evergreen forests, active even in winter as it does not hibernate. A variant, the **Narfa Raaugh**, is found in the snow fields and is fleet of foot, the Leonidan version of the Terran polar bear. Pelt Value is CR 100 x 3d6 in winter and 25% of that in warm seasons. The Narfa is worth +10d10% more than M'Raaugh pelts.

Torsaurgh: A mighty AAAA beast with A weapons and average speed, the Torsaurgh is a wooly grazer armed with great tusks and a prehensile trunk. It is the favorite prey of the SnowCaat, and can often be found in herds of 6-15. It has little value as a fur-bearing animal, but its flesh is worth CR 2.50 per kg.

Other animals abound, many of them corresponding to the deer and moose of Terra. These are hunted by the local populace as a source of food, though domesticated versions are raised in the settlements. (Waaurf and humans alike claim that the wild meat simply tastes better

Leonidas is fast becoming an attraction for hunters, and a tourist trade is growing. However, local hunting regulations require that only slug-throwers and stunners be used, and fines of CR 500-5000 are imposed for the use of advanced armaments in the hunt. Off-worlders must engage local guides. However, there is the off chance that stray Bugs may still be encountered, so personal arms may include energy projectors. The Leonidan government pays a bounty of CR 100 per Warrior killed, with antennae required as proof of such a kill.

MAAT II

StarSystem Coord.	3.DD.+30 Terran Sector GSC 14.JJ.+000
Stellar Primary	M1v main sequence star
FTL Conversion	10,000 LS
Planets in System	7
MAAT II	Type 14 Airless Planet: 3 moonlets
Orbital Distance	300 LS (0.60 A.U.)
Length of year	215 Terran days
Length of day	32 Terran days
Planetary Diameter	8000 km
Surface Gravity	0.80 G (very dense)
Temperature Range	−125°C to 65°C
Atmosphere Type	Vacuum: RAD/1-4 during solar flare periods, which occur every 25 days and last for 7 days.
Hydrosphere Type	Non-existent, but considerable amounts of subterranean water exist in the form of ice.
StarNationality	UFP Colony
Sentient Race	Human Colonial
Population	1,000,000 humans in domed cities
Tech Level	Tech/10
StarPort Rating	UFP StarPort C Class 2 (Tech/10)
Social Organization	Wide Open Society
Societal Strength	6
Xeno Acceptance	07%
Government Type	Miners' Republic
Government Support	20% (vote = 58%)
Loyalty Index	65% (revolt = 05%)
Repression Index	05%
Bureaucracy Level	Minimal
Corruption Level	16%
Law Level	1-5
Economic Rating	Exceedingly Rich Industrial (Mining)
Gross Productivity	MCR 125,000
Per Capita Income	CR 125,000
Tax %/Levy	10% = MCR 12,500
Military Spending	05% = MCR 6250
Major Exports	collapsium, industrial metals, gold, silver, platinum
Major Imports	food, parts, liquor
Trade Restrictions	Free Trade Policy
Trade Acceptance	38%

Maat II is an airless planet exhibing some of the characteristics of Luna in the Solarian System. The planet is subject to occasionally severe meteor infalls, and the entire surface is thickly pocked by craters that range from a few meters to a hundred kilometers across.

The human community lives in 5 domed cities and a number of mining settlements. Average earnings reach CR 25,000 to CR 30,000 per year, with the mining companies obtaining the major share of the profits from the very rich mining operations. The planet has a characteristic boom town character. However, a sinister criminal element has managed to insert itself into the community and takes advantage of the predilection of local officials to accept graft. The IPA would like to clean out the mob but has not been invited to do so by the planetary government (which is often in the pocket of the local gangsters).

MARA III

StarSystem Coord.	6.II.+70 Terran Sector GSC 14.JJ.+000
Stellar Primary	G4v main sequence star
FTL Converstion	10,000 LS
Planets in System	6
MARA III	Type 1 Terran Ocean Planet: 3 moons
Orbital Distance	415 LS (0.83 A.U.)
Length of year	291 days
Length of day	28 hours 30 minutes
Planetary Diameter	10,000 km
Surface Gravity	0.72 G (dense)
Temperature Range	−45°C to 60°C
Atmosphere Type	Terran: 800mm, with 02 at 175mm (normal). Moderate climate, with intense tropical storms
Hydrosphere Type	92% = 3 small continents and many island chains and small archepelagoes
StarNationality	Independent Planet
Sentient Race	Avians
Population	250,000,000 Avians
Tech Level	Tech/9
StarPort Rating	Mara StarPort AAAAA Class 1 (Tech/9)
Social Organization	Aristocratic
Societal Strength	10
Xeno Acceptance	25%
Government Type	Avian Oligarchy
Government Support	40% (vote = 65%)
Loyalty Index	79% (revolt = 15%)
Repression Index	10%
Bureaucracy Level	Minimal
Corruption Level	13%
Law Level	1-5
Economic Rating	Rich Industrial
Gross Productivity	MCR 3,375,000
Per Capita Income	CR 13,500
Tax %/Levy	30% = MCR 1,012,500
Military Spending	25% = MCR 850,000
Major Exports	aircraft, general tools, misc. equipment
Major Imports	industrial metals, industrial chemicals, petrochemicals, gems
Trade Restrictions	15% import duty on non-preferred goods
Trade Acceptance	50%

Mara III is inhabited by a race of fierce, hawk-faced Avians who have otherwise lost much of their bird-like appearance and resemble humanoids with a light covering of down. They attained space flight about 200 years before Terra, but other than exploration flights, they have not tended to move beyond the bounds of their planetary system. Though flightless, they retain the bird's natural instincts when in flight and prove to be peerless pilots and combatants in atmosphere or in space.

Mara III is a generally congenial Ocean Planet, but occasionally savage typhoons sweep along the equatorial regions in the late summer and early fall. The land masses are largely mountainous, however, and the worst of the storms is felt far below the airy heights on which the breathtaking spires of the Maran cities are built.

The Avians of Mara do not evidence a high degree of tolerance toward alien races, partly because they have suffered greatly in several of the interstellar wars that have swept theough their region. Nevertheless, they will not mistreat off-worlders. They simply restrict the movements of those they mistrust to the StarPort area.

MARATHON III

StarSystem Coord.	3.CC.+45 Terran Sector GSC 14.JJ.+000
Stellar Primary	G5v main sequence star
FTL Conversion	10,000 LS
Planets in System	7
MARATHON III	Type 2 Terran No Seasons Planet: 0 moons
Orbital Distance	415 LS (0.83 A.U.)
Length of year	240 days
Length of day	23 hours 10 minutes
Planetary Diameter	20,000 km
Surface Gravity	1.25 G (moderate density)
Temperature Range	−40°C to 70°C
Atmosphere Type	Terran High Pressure: 2000mm, with 02 at 450mm. Oxygen toxicity likely for most personnel.
Hydrosphere Type	68% = 5 continents and 2 sub-continents, with adequate precipitation over most regions.
StarNationality	UFP Colony
Sentient Race	Human Colonials (former Lost Colony)
Population	500,000 humans
Tech Level	Tech/8
StarPort Rating	UFP StarPort C Class 3 (limited Tech/10)
Social Organization	Aristocratic Society
Societal Strength	4
Xeno Acceptance	25% prejudice
Government Type	Constitutional Monarchy
Government Support	22% (vote = 58%)
Loyalty Index	72% (revolt = 28%)
Repression Index	28%
Bureaucracy Level	Moderate
Corruption Level	16%
Law Level	10-13, with Commons limited to archaic arms
Economic Rating	Extremely Rich Agricultural
Gross Productivity	MCR 10,000
Per Capita Income	CR 20,000
Tax %/Levy	30% = MCR 3000
Military Spending	25% = MCR 2500
Major Imports	misc. equipment, general tools
Major Exports	food, wines, textiles, gold, silver, platinum
Trade Restrictions	10% import duty on all imports
Trade Acceptance	75%

Marathon III was settled early during the Exodus and lost contact with Terra in 2130. When it was rediscovered in 2315, the colony had sunk to a Tech/3-4 feudal level. Over the following century, it was restored to Tech/8 levels, and the aristocratic society had evolved into a democratic constitutional monarchy in which the nobility still played a major role in government and general society. However, the commons were granted a parliament and ahve limited legislative capabilities.

The noble and upper classes of Marathon III enjoy considerable privilege and a significantly higher standard of living than do the majority of the commoners. While the average per capita income is CR 20,000, the typical family sees only about CR 10,000 per year. About 80% of the population is engaged in agriculture, producing a good portion of its needs from the very fertile soil of the steppelands in the temperate zones of the planet. The monied classes derive the bulk of their wealth from rents and from the rich deposits of precious metals found in the Blue Mountains of Thuria, the largest continent on which the largest percentage of the population lives.

Marathon III evidences many life forms similar to those of Terra, but there are a considerable number of dangerous carnivores in the densely forested highlands. The furs of these animals are not especially valuable because of the relatively mild winters in all except the high polar zones of the planet. The most valuable are:

Tarla: A B sized carnivore massing 900 kg, with B weapons and fast movement over short distances, the Tarla is a characteristically six-legged animal native to Marathon, which otherwise resembles a giant grizzly bear. It exhibits stalker/ambusher behavior, but is also omnivorous. Tarla are found in the forested regions only. Pelt Value is CR 100 x 2d6 in winter and 25% of that in summer.

Sleena: A G sized stalker/ambusher massing 400 kg, with C to E weapons, depending on its age and the location from which it originates (highland Sleena are the most dangerous). The creature vaguely looks like a leopard with six legs and may be tawny (steppelands), spotted (forests), or pure black or white (uplands and polar regions) in coloration. Pelt Value is CR 150 x 2d6 for polar Sleena, CR 100 x 1d6 for forest Sleena, and CR 50 x 1d6 for steppe Sleena. All are very fast to fleet in speed (the latter are steppe Sleena), and they are so quick and cunning in combat that they tend to gain an advantage 25% of the time, regardless of other factors.

Slaar: J carnivores massing 100 kg with E weapons and fast movement, the Slaar are pack hunters which resemble six-legged foxes, and exhibit the same reddish-brown coloration. They are native to the steppes and desert regions. They are valued for their bushy tails, which may bring CR 25 x 1d6. Slaar may be solitary or can run in packs of 3-18. They are very persistent trackers with phenomenal endurance (twice J stamina values) and dogged determination.

Other carnivores are small and have little interest. However, the **Tekaal,** an intermittent grazer I with D horns and fleet movement is the 200 kg Marathani version of the deer. It is especially aggressive when brought to bay and is much prized as a game animal by the nobility. It cannot be hunted by a commoner except by license from the local lord, who awards such permission as a special mark of favor. Tekaal are traditionally hunted with a spear or bow, and firearms are regarded as unsporting.

MARKAAB V

StarSystem Coord.	10.GG.+99 Terran Sector GSC 14.JJ.+000
Stellar Primary	B9iii giant star
FTL Conversion	35,000 LS
Planets in System	11
MARKAAB V	Type 15 Airless Planet: rings
Orbital Distance	3250 LS (6.50 A.U.)
Length of year	3.70 Terran years
Length of day	3.70 Terran years
Planetary Diameter	12,000 km
Surface Gravity	1.20 G (very dense)
Temperature Range	−100°C to 400°C
Atmosphere Type	Vacuum: RAD/1-10 BrightSide, depending upon solar flare activity (20% chance of flares per day)
Hydrosphere Type	Non-existent: all traces of water appear to be absent, necessitating importation of water.
StarNationality	UFP Colony
Sentient Race	Human Colonial
Population	7,500,000 humans in domed cities
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	8
Xeno Acceptance	05%
Government Type	Republic
Government Support	29% (vote = 82%)
Loyalty Index	93% (revolt = 01%)
Repression Index	02%
Bureaucracy Level	Moderate, efficient
Law Level	6-9
Economic Rating	Exceedingly Rich Industrial (Mining)
Gross Productivity	MCR 1,125,000
Per Capita Income	CR 150,000
Tax %/Levy	30% = MCR 337,500
Military Spending	20% = MCR 225,000
Major Exports	collapsium, industrial metals, precious metals, gems
Major Imports	food, parts, factory equipment, luxuries, liquor
Trade Restrictions	Free Trade Policy
Trade Acceptance	65%

Markhaab is a Mercury class planet, rich in raw resources which can often be found lying molten in hot pools connected to the planetary interior by vents leading down through the crust. Volcanic and seismic activity are often intense, while the radiation levels BrightSide can attain intensities approaching those experienced near a nuclear fireball. Most colonies are located in the Twilight Zone, where temperatures reach −25°C to 30°C, and radiation levels rarely exceed RAD/1. Seismic activity is also much lower in the Twilight and DarkSide regions.

The entire community of 7.5 million humans lives in 58 domed cities and mining settlements. Average earnings often exceed CR 30,000 per year, but the bulk of the profits go to the mining corporations which dominate the economic life of the planet. The planet has a boom town air about it, with a lot of hard work and hard play afterward.

MENKAAR V

StarSystem Coord.	10.AA.+09 Terran Sector GSC 14.JJ.+000
Stellar Primary	M2iii giant star
FTL Conversion	35,000 LS
Planets in System	10
MENKAAR V	Type 2 Terran No Seasons Planet: ringed
Orbital Distance	6000 LS (12.00 A.U.)
Length of year	9.30 Terran years
Length of day	35 hours 17 minutes
Planetary Diameter	10,000 km
Surface Gravity	1.00 G (very dense)
Temperature Range	−55°C to 60°C
Atmosphere Type	Terran: 800mm, with 02 at 175mm (normal). Usually favorable climate and weather.
Hydrosphere Type	71% = 9 small continents and numerous islands, with Terran levels of precipitation/humidity.
StarNationality	UFP Member Planet
Sentient Race	Human Colonial
Population	75,000,000 humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA x 2 Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	8
Xeno Acceptance	10%
Government Type	Republic
Loyalty Index	96% (revolt = 01%)
Repression Index	03%
Bureaucracy Level	Moderate, efficient
Law Level	6-9
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 1,875,000
Per Capita Income	CR 25,000
Tax %/Levy	30% = MCR 562,500
Military Spending	20% = MCR 475,000
Major Exports	food, wine, power metals, collapsium, gold, silver
Major Imports	parts, vehicles, aircraft, armaments
Trade Restrictions	Free Trade Policy
Trade Acceptance	72%

Menkaar V was founded in 2218 as an agricultural colony, and its chief exports are still meat, grain, and fine Menkaar vintage wines (200% higher price for the finer wines). However, extensive deposits of uranium and thorium have been discovered, and along with the gold and silver extracted from the mountain mines since the colony was founded these valuable metals have produced a healthy interstellar balance of trade. In 2547 collapsium was discovered in the great rings that circle Menkaar V, the remnants of a large, exploded moon, and a rush of meteor miners has occurred.

Life on Menkaar itself is rather sedate and conservative, despite the boisterous nature of the meteor miners now arriving to prospect the planetary rings. Indeed, a few miles out of the StarPort city of Menkaar itself, one would think he had stepped back in time to stroll the peaceful country lanes of old England on Terra. However, for all their quaint attachment to antique and archaic forms — be it in homes, furniture, or dress — the Menkaarites are among the most advanced technologists in the StarSector and encourage thorough education in all of the sciences and technical skills.

MINERVA II

StarSystem Coord.	8.GG.−75 Terran Sector GSC 14.JJ.+000
Stellar Primary	G4v main sequence star
FTL Conversion	10,000 LS
Planets in System	8
MINERVA II	Type 1 Terran Jungle Planet: 1 large moon
Orbital Distance	335 LS (0.67 A.U.)
Length of year	211 days
Length of day	30 hours 00 minutes
Planetary Diameter	20,000 km
Surface Gravity	2.50 G (very dense)
Temperature Range	−25°C to 75°C
Atmosphere Type	Terran: 900mm, with 02 at 200mm (slightly high). High humidity and intense tropical storms.
Hydrosphere Type	75% = 6 continents and 5 large island archepelagoes. Very small polar ice caps.
StarNationality	UFP Member Planet
Sentient Race	Pithecine Anthropoids
Population	500,000,000 Pithecines
Tech Level	Tech/9
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10)
Social Organization	Open Society
Societal Strength	7
Xeno Acceptance	10%
Government Type	Republic
Government Support	42% (vote = 70%)
Loyalty Index	83% (revolt = 07%)
Repression Index	10%
Bureaucracy Level	Moderate
Corruption Level	12%
Law Level	6-9
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 4,500,000
Per Capita Income	CR 9000
Tax %/Levy	30% = MCR 1, 350,000
Military Spending	20% = MCR 900,000
Major Exports	Quoropa leaves, food, luxury foods, metals
Major Imports	manufactured goods
Trade Restrictions	Free Trade Policy
Trade Acceptance	55%

The Pithecines of Minerva look exactly like Terran gorillas, only they have well-formed hands and their hips and legs are distinctly human in general appearance and efficiency. They have managed to attain Tech/9 levels under the careful tutelage of the Contact Service over the last 300 years and are staunch supporters of the Federation.

It has been said of Minerva II that it is one of the best manicured jungles in the universe, and it is. Most of the destructive wildlife has been hunted down and slain by the Minervites, and the regions that are densely inhabited have been cleared and drained, converting vast sections of the planet into conventional farmland. However, there are still extensive jungle and swamp regions, particularly on the two largest continents. There, a variety of jungle wildlife can be encountered, including the most dangerous feline known in the galaxy:

Minervan CaatOwl: An I class flier with a body resembling the Terran leopard, this 200-250 kg hunter/stalker is armed with C talons and fangs. Aerodynamically, it should not be able to fly at all because its wing span is only 3m from tip to top. However, it apparently has a psionic ability to levitate for long periods, permitting it to raise its considerable mass from the earth with ease. Its wings exist largely to stabilize and propell it in flight, and the CaatOwl can attain speeds in excess of 350 kmh (580-600m in 6 seconds) in a sprint. The creature attacks its prey from above, spotting it from thousands of meters of altitude, then plummeting downward with great force to deliver the killing blow. The creature is so-named because its eyes are very large and owl-like.

MIRA IV

StarSystem Coord.	9.BB.–05 Terran Sector GSC 14.JJ.+000
Stellar Primary	M5iii giant star
FTL Conversion	35,000 LS
Planets in System	10
MIRA IV	Type 2 Terran No Seasons Planet: 3 moons
Orbital Distance	5500 LS (11.00 A.U.)
Length of year	8.16 Terran years
Length of day	32 hours 20 minutes
Planetary Diameter	25,000 km
Surface Gravity	2.50 G (very dense)
Temperature Range	–60°C to 65°C
Atmosphere Type	Terran: 2500mm (high); with 02 at 350mm (high). Severe storms along the equatorial region.
Hydrosphere Type	80% = 5 continents. Humidity and precipitation levels are very high in the equatorial region.
StarNationality	UFP Member Planet (former Blarad Kingdom)
Sentient Race	Ursoid (Blarad type)
Population	1,000,000,000 Blarads
Tech Level	Tech/9
StarPort Rating	UFP StarPort AAAAA x3 Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	9
Xeno Acceptance	05%
Government Type	Constitutional Monarchy
Government Support	40% (vote = 73%)
Loyalty Index	90% (revolt = 02%)
Repression Index	01%
Bureaucracy Level	Moderate, slow but very efficient and precise
Corruption Level	06%
Law Level	6-9
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 22,500,000
Per Capita Income	CR 22,500
Tax %/Levy	40% = MCR 9,000,000
Military Spending	30% = MCR 6,000,000
Major Exports	vehicles, aircraft, armaments, mech. parts, gold
Major Imports	power metals, industrial metals, food
Trade Restrictions	Free Trade Policy
Trade Acceptance	70%

Mira IV was founded as a Blarad colony in 1862 (Terran calendar), from the HorseHead Nebula StarSector – just like Ankaa III. In 2388, Mira IV joined the Terran Union as an Allied Planet, and in 2412 became a full member of the Federation.

Mira IV possesses a powerful gravity field, like Ankaa's, beyond the capacity of most races to withstand and adapt to successfully. However, there are about 2,500,000 humans from Ankaa who can function quite easily on the planet, and they provide a good portion of the high-tech expertise required to run the industrial complexes of the planet.

See the note on Ankaa for details about Blarad life and government. The planet owes allegiance to the Crown of Ankaa, and is traditionally the seat of the Crown Prince.

As in the case of Ankaa, Miran life forms are very deadly and dangerous The wildlife is tanacious of life and generally deadly in the attack. Most of these beasts are confined to the equatorial region (continent of Terala), and the rest of the planet is relatively well settled and tamed.

MITRA III

StarSystem Coord.	10.JJ.+00 Terran Sector GSC 14.JJ.+000
Stellar Primary	FOiv subgiant star
FTL Conversion	20,000 LS
Planets in System	9
MITRA III	Type 14 Terran Ice Planet: 1 moon
Orbital Distance	4665 LS (9.33 A.U.)
Length of year	10.41 Terran years
Length of day	28 hours 20 minutes
Planetary Diameter	8000 km
Surface Gravity	0.95 G (exceedingly dense)
Temperature Range	–105°C to 20°C
Atmosphere Type	Terran: 1000mm (dense), with 02 at 150mm (slightly thin). Savage blizzards are common.
Hydrosphere Type	66%, with vast ice cpas covering the 5 continents to the equatorial zone.
StarNationality	UFP Colony (Procyon colonists)
Sentient Race	MekPurr Feline Colonials
Population	250,000 MekPurrs/2,500,000 Meks
Tech Level	Tech/10+
StarPort Rating	MekPurr StarPort AAAA Clas 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	9
Xeno Acceptance	08%
Government Type	MekPurr Feudal Aristocracy
Government Support	49% (vote = 62%)
Loyalty Index	82% (revolt = 07%)
Repression Index	04%
Bureaucracy Level	Minimal, very efficient
Law Level	1-5
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 25,000
Per Capita Income	CR 10,000/Mek = CR 100,000/MekPurr
Tax %/Levy	50% = MCR 12,500
Military Spending	40% = MCR 10,000
Major Exports	industrial metals, gems, gold, irridium
Major Imports	food, wines, luxuries, factory equipment
Trade Restrictions	Free Trade Policy
Trade Acceptance	45%

Mitra III was founded by MekPurr colonists from Procyon V in 1912 (Terran calendar). In 2068, it was granted the status of Mm'Tai (equivalent to Terran duchy) and quasi-independent powers. When Procyon V jointed the UFP in 2415, Mitra III followed.

The planet is very similar to Leonidas II, and the same life forms are found on Mitra III, arguing for a possible 'seeding' of the planet by an earlier starculture. See the note on Leonidas II for details. However, the MekPurrs have largely ignored the rich fur trade, concentrating on mining and smelting the large deposits of metals found on the planet. Recently, a small group of Leonidan humans and canines have arrived to exploit the potentials of the animal population, but these number only a few hundred and the fur trade is only beginning.

See also the note on Baast culture.

NAMIR II

StarSystem Coord.	9.FF.–90 Terran Sector GSC 14.JJ.+000
Stellar Primary	G9v main sequence star
FTL Conversion	10,000 LS
Planets in System	5
NAMIR II	Type 8 Terran Arid Planet: 3 moons
Orbital Distance	315 LS (0.63 A.U.)
Length of year	207 days
Length of day	32 hours 55 minutes
Planetary Diameter	12,000 km
Surface Gravity	0.92 G (dense)
Temperature Range	–20°C to 80°C
Atmosphere Type	Terran: 1000mm, with 02 at 200mm (high). Humidity and precipitation are minimal, and dust storms are common in desert areas.
Hydrosphere Type	17% = landlocked seas and lakes.
StarNationality	Independent Planet: Bug Hive World
Sentient Race	Larvae (Bug)
Population	10,000,000,000(est)/2,000,000,000 warriors
Tech Level	Tech/8
StarPort Rating	StarPort AAAAA x3 Class 1 (Tech/8 facility)
Social Organization	Larvan Hive
Societal Strength	10
Xeno Acceptance	100% prejudice: instant attack
Government Type	Hive Mind
Economic Rating	Poor Industrial
Gross Productivity	MCR 25,000,000
Per Capita Income	CR 3500/worker
Military Spending	50% = MCR 12,500,000

Namir II is a major Hive World untouched by the long-term campaign waged against the Bugs by the Terran Union and its allies. Indeed, so secret was its presence, that the Bugs had managed to build their colony into a massive bastion by 2423, when it was discovered by an independent survey team. The 10th Federation BattleFleet maintains regular surveillance of the starsystem and has fought several skirmishes with the highly aggressive starforces of Namir II in recent years. Personnel of all races are advised to avoid the starsystem and to stand to battlestations when in this region of the StarSector, as Namir patrols are clearly spoiling for a fight. A colonizing breakout is expected from this planet at any time.

NASSUR III

StarSystem Coord.	9.AA.–75 Terran Sector GSC 14.JJ.+000
Stellar Primary	G7v main sequence star
FTL Conversion	10,000 LS
Planets in System	7
NASSUR III	Type 1 Terran Standard Planet: 1 moon
Orbital Distance	350 LS (0.70 A.U.)
Length of Year	235 days
Length of day	25 hours 50 minutes
Planetary Diameter	10,000 km
Surface Gravity	1.00 G (very dense)
Temperature Range	–60°C to 65°C
Atmosphere Type	Terran: 800mm, with 02 at 175mm (normal). Climate and weather closely approximate that of Terra.
Hydrosphere Type	76% = 5 continents, 2 sub-continents, and 6 large island archepelagoes.
StarNationality	Occupied UFP Colony: Bug Outpost
Sentient Race	Larvae (Bug) and Human Colonial Survivors
Population	1,000,000 (est.) = 75-100,000 warriors
Tech Level	Tech/8
StarPort Rating	StarPort A Class 2 (Tech/8 facilities)
Social Organization	Larvan Hive
Societal Strength	10
Xeno Acceptance	100% prejudice: instant attack
Government Type	Hive Mind
Economic Rating	Poor Industrial
Gross Productivity	MCR 3150
Per Capita Income	CR 3500/worker
Military Spending	50% = MCR 1575

Until recently, Nassur III was a small but thriving Lost Colony planeted from Terra in 2096. However, in 2538 a Bug assault unit overwhelmed the colonial defenses and began the extermination of all human life on the planet. About 3000 survivors were evacuated by the Free Trader Terrapin, operating out of Talos. The survivors have become fanatic agitators for a major campaign against the Bugs, and their suffering has caused widespread war-fever on Talos, Mira, and Menkaar. While Nassur III is an enemy-occupied planet, Bug strength is not yet so powerful as to deny the planet to courageous adventurers seeking the valuable StarStones for which the world is famous throughout Known Space. (StarStones command five times the value of gems.)

UFP authorites estimate that as many as 10,000 of the original 250,000 colonists have managed to survive by fleeing into the forested regions of the middle latitudes, away from the steppes and deserts preferred by the Bugs.

36 OPHIUCHI II

StarSystem Coord.	5.FF.+08 Terran Sector GSC 14.JJ.+000
Stellar Primary	K1v/K5v binary main sequence stars
FTL Conversion	10,000 LS
Planets in System	6
36 OPHIUCHI II	Type MS.4 Terran Outer Ecosphere Planet: 2 moons
Orbital Distance	465 LS (0.93 A.U.)
Length of year	300 days
Length of day	22 hours 53 minutes
Planetary Diameter	10,000 km
Surface Gravity	1.00 G (very dense)
Temperature Range	–100°C to 30°C
Atmosphere Type	Terran Thin Atmosphere at 350mm, with 02 at 100mm (minimal). Breathing apparatus needed over 1500m.
Hydrosphere Type	63% = 4 continents, 3 sub-continents, and several large island chains; extensive polar ice caps.
StarNationality	UFP Colony
Sentient Race	Human Colonials and others
Population	1,000,000
Tech Level	Tech/10
StarPort Rating	UFP StarPort C Class 3 (Tech/10 facility)
Social Organization	Wide Open Society
Societal Strength	3
Xeno Acceptance	10% prejudice
Government Type	Miners' Republic with UFP prsence
Government Support	16% (vote = 56%)
Loyalty Index	60% (revolt = 20%)
Repression Index	Very minimal; almost all provided by UFP
Corruption Index	20% local officials; 01% UFP officials
Law Level	1-5

Economic Rating	Exceedingly Rich Industrial (Mining)
Gross Productivity	MCR 40,000
Per Capita Income	CR 40,000
Tax %/Levy	10% = MCR 4000
Military Spending	7.5% = MCR 3000
Major Exports	power metals, precious metals, gems
Major Imports	food, misc. equipment, parts, liquor
Trade Restrictions	Free Trade Policy
Trade Acceptance	43%

In 2096 a group of 10,000 Terrans arrived on 36 Ophiuchi III to found a high-technology mining colony. The planet if particularly well supplied with uranium, thorium, gold, silver and platinum, with some moderately rich deposits of industrial metals as well. Recently, gems of high quality have been found in the icebound mountains of the north.

36 Ophiuchi is a fairly standard Ice Planet, with wildlife comparable to that found on Terra during its last Ice Age. However, the animals are all possessed of huge lungs and can survive and move about with great efficiency, even in very low pressure (100mm or less). Only a few have furs of any commercial value. Most are very functional but lack in attractiveness. The only carnivore of note is the **IceWolf**, a J beast of 125 kg, with D or E fangs and fast movement. The IceWolves hunt in packs of 3-30 and are superb hunting animals when raised from cubs. They tend not to attack armed parties or individuals, but they seem to know when a person is unarmed and may close in for the kill at that time.

Old prospectors tell tales about a mysterious creature of the high mountains, which often reach 10,000m in height and cover 25% of the land surface of the planet. The **Phantoms** are bipedal, covered wtih white fur that blends perfectly with glacial snow and ice, and mass about 250 kg (beast I). But what is especially terrifying are the stories of great rending claws and fangs (A weapons with +1 or +2 penetration DM) and superhuman strength. The creatures cannot be readily seen or detected in the ice-crystal fogs of the high altitute regions, and appear to strike without warning from nowhere. Contact Service experts surmise that, if the creatures exist, they are possibly sentient.

70 OPIUCHI (VALARION)

StarSystem Coord.	5.FF.+00 Terran Sector GSC 14.JJ.+000
Stellar Primary	K1v/K5v binary main sequence stars
FTL Conversion	10,000 LS
Planets in System	8
70 OPHIUCHI	Type MS. 1 Terran Standard Planet: 1 moon
Orbital Distance	415 LS (0.83 A.U.)
Length of year	288 days
Length of day	25 hours 25 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.84 G (dense)
Temperature Range	−70°C to 65°C
Atmosphere Type	Terran: 775mm, with 02 at 150mm (slightly thin). Climates and weather approach Terran norms.
Hydrosphere Type	73% = 3 continents, 5 sub-continents, and several large island archepelagoes.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	150,000,000 humans and some non-humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA x3 Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	10
Xeno Acceptance	02% prejudice: significant non-human minority
Government Type	Republic
Government Support	89% (vote = 66%)
Loyalty Index	89% (revolt = 03%)
Repression Index	02%
Bureaucracy Level	Moderate, highly efficient
Corruption Index	04%
Law Level	10-13
Economic Rating	Exceedingly Rich Industrial
Gross Productivity	MCR 3,750,000
Per Capita Income	CR 25,000
Tax %/Levy	30% = MCR 1,125,000
Military Spending	20% = MCR 750,000
Major Exports	vehicles, aircraft, spacecraft, parts, misc. tools
Major Imports	power metals, industrial metals, petrochemicals, food
Trade Restrictions	Free Trade Policy
Trade Acceptance	68%

When Terran colonists arrived on 70 Ophiuchi in 2075, they found a planet in the early stages of development. Primitive plant and animal life had just begun to move onto the land from the seas, and conditions are thought to have resembled those of Terra early in its development before the Carboniferous Age. Then it was discovered that vast petroleum reserves existed beneath the surface. Not until 2286 did scientists find that the planet had been swept clean of life above the ocean surface by some ForeRunner device of unknown design and power. Apparently, evolutionary forces had operated in the hundreds of thousands of years since that ecological disaster to begin the colonization of the land. In the meantime, Terraforming was initiated to bring the land areas into a more productive state, and by 2250, 70 Ophiuchi has become a virtual twin of Terra.

The society is very similar to that of Terra, with identical social and political institutions.

OSIRIS IV

StarSystem Coord.	2.EE.+40 Terran Sector GSC 14.JJ.+000
Stellar Primary	K4iv subgiant star
FTL Conversion	20,000 LS
Planets in System	8
OSIRIS IV	Type 2 Terran No Season Planet: 3 moons
Orbital Distance	1000 LS (2.00 A.U.)
Length of year	2.30 Terran years
Length of day	25 hours 20 minutes
Planetary Diameter	11,000 km
Surface Gravity	1.10 G (very dense)
Temperature Range	−75°C to 65°C
Atmosphere Type	Terran: 1200mm, with 02 at 200mm (slightly high). Terran patterns of weather and climate.
Hydrosphere Type	68% = 4 continents, 3 sub-continents, and numerous islands. Good precipitation and humidity levels.
StarNationality	UFP Affiliate: Indpendent Planet
Sentient Race	Canine
Population	100,000,000
Tech Level	Tech/9
StarPort Rating	Osiris StarPort AAAAA Class 1 (Tech/9)
Social Organization	Aristocratic
Societal Strength	7
Xeno Acceptance	15%
Government Type	Constitutional Monarchy
Government Support	28% (vote = 61%)
Loyalty Index	81% (revolt = 12%)
Repression Index	08%
Bureaucracy Level	Moderate
Corruption Level	10%
Law Level	6-9
Economic Rating	Rich Agricultural
Gross Productivity	MCR 675,000
Per Capita Income	CR 6750
Tax %/Levy	30% = MCR 200,000
Military Spending	20% = MCR 135,000
Major Exports	food, textiles, industrial metals, gems
Major Imports	general tools, misc. equipment, vehicles
Trade Restrictions	Free Trade Policy
Trade Acceptance	45%

Little is known about the surface conditions on Osiris IV other than those observable from space and from Osiris StarPort. The Canines of Osiris have a definite aversion to letting off-worlders explore their planet, though they will engage in trade. BRINT agents have been able to piece together some disturbing evidence that Osiris IV may be an advance base for some as yet unknown starculture. Indeed, several devices obtained by BRINT operatives are clearly not of Osirian manufacture, nor do they correspond to any known starculturé s workmanship. Since they are patently of Tech/10 level, the nature of the unknown starculture is definitely ultra-high technology. Osirian starships of the WarFleet are also unlike commercial designs and are beyond the capacity of the shipbuilding industry of Osiris to produce. They, too, are suspected to be of Tech/10 design.

PROCYON IV (BRITANNIA)

StarSystem Coord.	5.EE.+02 Terran Sector GSC 14.JJ.+000
Stellar Primary	F5iv/K5d binary subgiant and main sequence stars
FTL Conversion	20,000 LS
Planets in System	10
PROCYON IV	Type MS.1 Terran Standard Planet: 3 moonlets
Orbital Distance	1500 LS (3.00 A.U.)
Length of year	2.53 Terran years
Length of day	23 hours 50 minutes
Planetary Diameter	11,000 km
Surface Gravity	1.10 G (very dense)
Temperature Range	−80°C to 70°C
Atmosphere Type	Terran: 700mm, with 02 at 125mm (thin). Weather and climate approximate Terran.
Hydrosphere Type	78% = 6 continents and numerous island chains and archepelagoes. Good precipitation patterns.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	250,000,000 humans
Tech Level	Tech/9
StarPort Rating	UFP StarPort AAAAA x2 Class 1 (Tech/10)
Social Organization	Open Society
Societal Strength	7
Xeno Acceptance	08%
Government Type	Constitutional Monarchy
Government Support	72% (vote = 61%)
Loyalty Index	85% (revolt = 12%)
Repression Index	08%
Bureaucracy Level	Moderately high
Corruption Index	20%: Institutionalized graft, but not treasonous
Law Level	13-15
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 3,125,000
Per Capita Income	CR 12,500
Tax %/Levy	30% = MCR 937,500
Military Spending	20% = MCR 625,000
Major Exports	food, wines, liquor, textiles, chemicals, industrial metals
Major Imports	parts, vehicles, aircraft, armaments
Trade Restrictions	Free Trade Policy
Trade Acceptance	70%

The MekPurr of Procyon V have been close associates of Terra since humanity won the stars. Thus, it is not at all unusual that humans would found what has eventually become a very successful agricultural colony on Procyon IV to serve the needs of MekPurr society as well as to provide much needed food for crowded Terra itself. Procyon IV is an orbital twin of Procyon V, the MekPurr planet, exactly 180° opposite in orbital position.

When it was first settled in 2077, Procyon IV was devoid of life and needed massive Terraforming. This was accomplished in a 200-year period, with the valuable assistance of the MekPurr of Procyon V. Now the colony is a New Terra, and boasts a population of 250 millions. Each year several million Terrans arrive to further increase the population, and the planet is in every way a double of Old Earth.

The government is a constitutional monarchy established on the line of the Kings of Old England on Terra, and the planet bears the name Britannia as a result. Indeed, the Royal Family fled to Britannia when the fanatic Pure Earthers gained dominance and began dismantling all of the hated trappings of class privilege and social inequality on Terra. Many of their subjects followed them, and a few subsequently moved on to Menkaar V, with its more salubrious climate (until Terraforming was completed on Britannia, that is). Ties between Britannia and Menkaar are particularly close as a result.

PROCYON V

StarSystem Coord.	5.EE.+02 Terran Sector GSC 14.JJ.+000
Stellar Primary	K5iv/K5d binary subgiant and dward stars
FTL Conversion	20,000 LS
Planets in System	10
PROCYON V	Type MS.1 Terran Standard Planet: 1 moon
Orbital Distance	1500 LS (3.00 A.U.)
Lenght of year	2.53 Terran years
Length of Day	24 hours 16 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	−85°C to 75°C
Atmosphere Type	Terran: 1500mm (dense), with 02 at 200mm (high). Storms tend to be rather severe, with high winds.
Hydrosphere Type	80% = 4 continents, 5 sub-continents, and very many island chains and archepelagoes. Good precipitation.
StarNationality	UFP Member Planet
Sentient Race	MekPurr Feline
Population	25,000,000 MekPurrs/500,000,000 Meks
Tech Level	Tech/10+
StarPort Rating	MekPurr StarPort AAAAA x4 Class 1 (Tech/10+ facilities)
Social Organization	Open Society
Societal Strength	10
Xeno Acceptance	01%
Government Type	MekPurr Feudal Aristocracy
Government Support	55% (vote = 75%)
Loyalty Index	95% (revolt = 01%)
Repression Index	02%
Bureaucracy Level	Moderate, devastatingly efficient
Corruption Index	01%
Law Level	1-5
Economic Rating	Incredibly Rich Automated Industrial
Gross Productivity	MCR 10,000,000
Per Capita Income	CR 20,000/Mek = CR 400,000/MekPurr
Tax %/Levy	50% = MCR 5,000,000
Military Spending	40% = MCR 4,000,000
Major Exports	Tech/10 computers and parts, robotic equip.
Major Imports	power metals, industrial metals, luxuries, wines
Trade Restrictions	Free Trade Policy
Trade Acceptance	50%

Procyon V is a major center of MekPurr power in the Terran Sector, surpassed only by Baast III. The planet is literally manicured, with almost 25,000,000 Meks detailed to maintaining the countryside in all the finicky attention to detail so characteristic of the MekPurr.

Most of the comments about Baast are equally applicable to Procyon V except that military forces are about half the strengths given for Baast. The MekPurr of Procyon are specialists in difficult Terraforming projects and have done signal service in other StarSectors to develop marginal planets into congenial environments suitable for Class A colonization.

PTAH II

StarSystem Coord.	2.GG.+35 Terran Sector GSC 14.JJ.+000
Stellar Primary	G4v main sequence star
FTL Conversion	10,000 LS
Planets in System	6
PTAH II	Type 2 Terran No Season Planet: 1 moon
Orbital Distance	460 LS (0.92 A.U.)
Length of year	340 days
Length of day	25 hours 00 minutes
Planetary Diameter	9000 km
Surface Gravity	0.90 G (very dense)

Temperature Range	−90°C to 55°C
Atmosphere Type	Terran: 1400mm (dense), with 02 at 225mm (high). Severe storms at edges of equatorial zone.
Hydrosphere Type	68% = 5 large and 3 small continents, with a huge island archepelago in the northern hemisphere.
StarNationality	UFP Colony (Baast colonists)
Sentient Race	MekPurr Feline Colonials
Population	100,000 MekPurrs/1,000,000 Meks
Tech Level	Tech/10+
StarPort Rating	MekPurr StarPort AAA Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	9
Xeno Acceptance	06%
Government Type	MekPurr Feudal Aristocracy
Government Support	53% (vote = 62%)
Loyalty Index	80% (revolt = 10%)
Repression Index	02%
Bureaucracy Level	Minimal, very efficient
Corruption Level	07%
Law Level	1-5
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 10,000
Per Capita Income	CR 10,000/Mek = CR 100,000/MekPurr
Tax %/Levy	50% = MCR 5000
Military Spending	40% = MCR 4000
Major Exports	power metals, gold, silver, platinum, irridium
Major Imports	food, wines, luxuries
Trade Restrictions	Free Trade Policy
Trade Acceptance	40%

Ptah II was founded by MekPurr colonists from Baast in 1932 (Terran calendar). In 2086 it was granted the status of a Mm Srrrl (equivalent to a Terran earldom). When Baast joined the UFP in 2410, Ptah II followed as a loyal vassal.

The planet is Terraformed and has all of the ferocity of a flowergarden. The industrial strength of the colony was diminished by a sneak raid by the Hiss in 2465, which resulted in mass destruction of the main industrial complex, which is only now completing reconstruction. The physical scars to the landscape were healed far more quickly than the devastation wrought on industry.

A treaty has been signed to open up the rural region to Terran colonists for development into agricultural complexes. Over the next fifty years, 25 million human colonists will emigrate to Ptah II.

RA III

StarSystem Coord.	3.BB.+85 Terran Sector GSC 14.JJ.+000
Stellar Primary	M4iv subgiant star
FTL Conversion	20,000 LS
Planets in System	10
RA III	Type 1 Terran Standard Planet: 3 moonlets
Orbital Distance	1250 LS (2.50 A.U.)
Length of Year	1.98 Terran years
Length of Day	30 hours 00 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	−75°C to 55°C
Atmosphere Type	Terran: 1000mm (high), with 02 at 225mm (high). Weather and climate patterns are similar to those of Terra.
Hydrosphere Type	70% = 6 continents, 3 sub-continents, and many islands. Precipitation heavy along the equator.
StarNationality	UFP Protectorate
Sentient Race	Humanoid
Population	250,000,000
Tech Level	Tech/2-3
StarPort Rating	UFP StarPort B Class 2 on Moonlet I: Tech/10+
Social Organization	Aristocratic/Tribal Anarchy
Societal Strength	2
Xeno Acceptance	50%
Government Type	Multi-Government/Feudal/Tribal Anarchy
Government Support	15% (vote = 45%)
Loyalty Index	50% (revolt = 25%)
Repression Index	50%
Bureaucracy Level	Minimal
Corruption Level	15%
Law Level	1-5
Economic Rating	Poor Agricultural
Gross Productivity	MCR 81,250
Per Capita Income	CR 325
Tax %/Levy	30% = MCR 24,000
Military Spending	15% = MCR 12,000
Major Exports	–
Major Imports	–
Trade Restrictions	Tech/3-4 technology items under UFP license
Trade Acceptance	25%

Ra III is a Terran planet with a humanoid culture ate about the same level of development as on Ancient Terra at the time of the Roman Empire. Indeed, many of the nations have characteristics and institutions similar to those of Rome, Greece, Egypt, Parthia, Germania, etc., and the Ra have tended to adopt many Terran names and mannerisms reflecting that resemblance. Thus, it is now possible to walk again in the Ra version of ancient Rome or Athens (complete with buildings), although there are significant local differences from anything in Terran history. At first, Contact Service officials were alarmed at the copycat quality of the Ra reaction to Terran culture, but careful analysis has revealed that the cultural shock effects of contact with advanced starcultures is being rapidly diminished by it. Indeed, nothing has really been lost, for traditional art forms and customs are still maintained as necessary ceremonials, and the character of true Ra society is not diminished.

RAKSHASHA V

StarSystem Coord.	8.CC.+40 Terran Sector GSC 14.JJ.+000
Stellar Primary	M2iv subgiant star
FTL Conversion	20,000 LS
Planets in System	10
RAKSHASHA V	Type 2 Terran No Season Steppe Planet: 0 moons
Orbital Distance	1100 LS (2.20 A.U.)
Length of Year	1.74 Terran years
Length of Day	26 hours 54 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.69 G
Temperature Range	−60°C to 50°C
Atmosphere Type	Terran: 750mm, with 02 at 150mm (normal). Heavy atmospheric contaminants (chemical warfare residue) and radiation levels of RAD/1-8 prevail over most of the planetary surface.
Hydrosphere Type	38% = landlocked seas, contaminated.
StarNationality	Independent Planet: Bug Hive World
Sentient Race	Larvae (Bug)
Population	250,000,000(ext.) w/ 50,000,000 warriors
Tech Level	Tech/7-8
StarPort Rating	StarPort AAA Class 1 (Tech/8 facilities)
Social Organization	Larvan Hive
Societal Strength	10
Xeno Acceptance	100% prejudice = instant attack
Government Type	Hive Mind
Economic Rating	Poor Industrial
Gross Productivity	MCR 750,000
Per Capita Income	CR 3500/Worker
Military Spending	50% = MCR 375,000

Rakshasha V is one of 5 Bug planets remaining in the Terran StarSector after the Bug Raids of 2281-2310. The planet was once a major Hive World, but the devastatingly successful assault made on this planet by the famous 10th BattleFleet of the Terran Union in 2310 reduced it to little more than an outpost of Bug power. Personnel of all races are advised to avoid the starsystem and to stand to battle stations when in this region of the StarSector, for Bug patrols are heavy and utterly hostile.

REGULUS VI

StarSystem Coord.	2.DD.+17 Terran Sector GSC 14.JJ.+000
Stellar Primary	B7v main sequence star
FTL Conversion	10,000 LS
Planets in System	10
REGULUS VI	Type 7 Jungle Planet: 5 moons
Orbital Distance	7500 LS (15.00 A.U.)
Length of Year	25.98 Terran years
Length of Day	28 hours 08 minutes
Planetary Diameter	15,000 km
Surface Gravity	0.94 G (moderate density)
Temperature Range	25°C to 70°C
Atmosphere Type	Terran: 850mm, with 02 at 200mm (high). Humidity levels are excessive, and storms are severe.
Hydrosphere Type	83% = very extensive swamps and shallow seas: 7 continents and innumerable islands.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	25,000,000 humans
Tech Level	Tech/9
StarPort Rating	UFP StarPort AAA Class 1 (Tech/10 facilities)
Social Organization	Open Society
Societal Strength	6
Xeno Acceptance	09%
Government Type	Republic
Government Support	41% (vote = 64%)
Loyalty Index	78% (revolt = 14%)
Repression Index	09%
Bureaucracy Level	Minimal
Corruption Index	07%
Law Level	1-5
Economic Rating	Rich Agricultural
Gross Productivity	MCR 225,000
Per Capita Income	CR 9000
Tax %/Levy	30% = MCR 67,500
Military Spending	15% = MCR 33,750
Major Exports	Quoropa leaves, food
Major Imports	vehicles, parts, general foods, medicines
Trade Restrictions	Free Trade Policy
Trade Acceptance	34%

Regulus VI is a planet in a Jurassic period of development, with very lush vegetation, high temperatures, and uniformly tropical conditions across most of the planetary surface. Dinosaurian life forms predominate, and personnel are advised to go well armed at all times. XAB Xeno-Anti-Biotics are essential to combat the virulent Regulian fever and the many vicious fungus infections which pervade the environment. However, a weekly dose of XAB has a 95% chance of preventing most infections. An immunity will be built up against most native diseases after about 5 years residence (90% chance of immunity).

Life forms of special note are:

Tyrannosaurus Regulanus: A terrible AAAA stalker/ambusher massing over 10,000 kg at maturity, with A weapons capable of penetrating up to +5 armor (add +5 DM to attack rolls). TeeReg is fast in movement and is well armored by a leathery B/B/C hide. It is the largest and by far the most dangerous carnivore of the light forest and open plains, but rarely is it encountered in dense jungles, swamps, or highlands.

Terrorsaurus: An A stalker/ambusher massing up to 1500 kg, with A weapons and fast movement. Terrorsaurs have good hearing and sense of smell, but only poor eyesight, yet they function very efficiently in their jungle and swamp habitat. They are also well armored with D/D/E hides and may absorb 125% normal damage for an A beast before perishing. They may hunt alone or in mated pairs.

Lupus Regulanus: The Regulian wolf is a hair-covered, 4-footed saurian pack hunter of I size (150-200 kg) capable of very fast movement and armed with fangs varying from E to G levels. Their hides are H/H/I, and they have a shock resistance of 15+. Wolves tend to travel in packs of 6-25 and evidence the intelligence and cunning of their canine namesakes. Raised from the egg, they can be domesticated and prove to be remarkably loyal and affectionate. Lupus Regulanus can be encountered in jungle, forest, plain, and upland environments, but only rarely in swamps.

Killersaurus: A J sized bipedal pack hunter with F to H weapons and massing about 100 kg. Killers are capable of fast movement and travel in packs of 10-30, employing mob tactics to pull down and tear apart larger prey. They are utterly fearless and are insatiable once they catch the scent of blood. Killersauri are very common in swampy regions, but will also prowl the dense jungles. They have I/I/J hides, but G heads. Cultural anthropologists relate the species to Hisssssist, suggesting that the Killersaurus is a distant ancestor of this star race.

Krocasaurus: A lurker carnivore of E to G size (200-400 kg), armed with E to G weapons and protected by C/C/D armored hides. Krocs are slow on land but are very fast in swamps and rivers, their natural habitats. Krocasauri are swamp and river dwellers, rarely venturing more than 100m from water.

There are many dangerous beasts, but most of them are smaller and less deadly than those noted above. Also, there is a vast range of herbivorous saurians ranging from tiny O sized creatures up to AAAA+ 20,000-30,000 kg grazers reminiscent of Terran brontosaurians. One intermittent grazers used as a mount and work animal by the colonials is the TeeCee, a beast resembling the ancient Terran Tricerotops:

Tricerotops Regulanus: An AAAA beast massing from 5000 kg to 20,000 kg, armed with A horns and protected by a massive bone mantle giving AFV to +2 armor protection frontally, and by a tough B/B/C hide over the remainder of the body. Tricerotops or TeeCee can move at a fast rate in a charge, bur normally proceed at a slow pace, like most saurian herbivores. They are found on the plains, rarely venturing into the dense forests. When startled or frightened, they face the enemy and charge (200m triggering range, normally). Since TeeCees run in herds of 5-30, such a reaction can be very hard on assailants. They can be domesticated from the egg, but wild TeeCees are not tamable.

An intelligent plant can also be found on Regulus, the feared **Hydra Plant** of the deep jungles and swamps. It is equivalent to an A beast in the damage it can inflict (usually D to F weapons) or receive, and has a very tough A/B/D covering. The plant resembles the microscopic hydra of Terra in appearance, with numerous tentacles emanating from a thick central stalk. It is often overgrown by other plants, especially hanging jungle vines, and so is often missed until it strikes (range of 10-20m). The plant should be regarded as equivalent to a lurker carnivore.

The human population dwells in fortified towns and plantations. Political activity is quite limited, as most efforts are expended on coping with the hostile environment. Individual liberty is prized by this fearless group of frontiersmen, and they honor men with courage and plain common sense. Theft is almost unknown on the planet and all doors

are open to strangers. In many respects life is similar to that of the pioneer west of Terra, except for the absence of the gunslinger.

The principal crop is the **Quoropa** leaf, used to make QRD QuickTime Regen drugs and other medical preparations. Quoropa leaves are available in one ton lots at CR 5000 + CR 50 x 2d6 per ton. The resale value can be 100% + 10.d20% when marketed at a Rich Industrial Tech/8+ destination. (Expensive lots represent very high grade leaves, so the greater the initial cost, the greater the potential profit.)

Other crops are also available. These tend to have double the cost and resale value of usual food items, as many of the roots and fruits of Regulus are prized for their attractiveness and flavor.

RIGIL KENTAURUS III (ALPHA–CENT)

StarSystem Coord.	5.FF.–04 Terran Sector GSC 14.JJ.+000
Stellar Primary	G2v/K5v/M5d triple star system
FTL Conversion	10,000 LS
Planets in System	7
RIGIL KENTAURUS	Type MS.2 Terran No Seasons Steppe Planet 1 moon
Orbital Distance	500 LS (1.00 A.U.)
Length of Year	290 days
Length of Day	27 hours 00 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.84 G (dense)
Temperature Range	–60°C to 55°C
Atmosphere Type	Terran: 750mm, with 02 at 175mm (Terran normal). Severe storms in high latitudes.
Hydrosphere Type	37% = landlocked seas and lakes, with extensive plains and deserts in low latitudes.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	100,000,000 humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10)
Social Organization	Open Society
Societal Strength	8
Xeno Acceptance	09%
Government Type	Republic
Government Support	39% (vote = 61%)
Loyalty Index	72% (revolt = 10%)
Repression Index	08%
Bureaucracy Level	Moderate
Corruption Index	08%
Law Level	14-15
Economic Rating	Rich Agricultural
Gross Productivity	MCR 750,000
Per Capita Income	CR 7500
Tax %/Levy	30% = MCR 225,000
Military Spending	20% = MCR 150,000
Major Exports	food, wine, textiles, industrial metals, petrochemicals
Major Imports	parts, vehicles, general tools, misc. equipment
Trade Restrictions	Free Trade Policy
Trade Acceptance	50%

Rigil Kentaurus III (or Alpha-Cent as it is more commonly called), is a Terraformed planet fashioned with the able assistance of the MekPurr of Procyon. It was originally settled as a desolate world by TransLunar Mining, but in 2315 the Terraforming project was completed and a truly congenial Class A planet had been constructed on the standard Terran model, complete to selected flora and fauna.

Alphan life styles and institutions are closely parallel to those of Terra, although there is a definite rural tone to it all – reflecting the predominantly agricultural nature of the world.

SABIK VI

StarSystem Coord.	5.II.–19 Terran Sector GSC 14.JJ.+000
Stellar Primary	A2v main sequence star
FTL Conversion	10,000 LS
Planets in System	11
SABIK VI	Type 1 Terran Arid Planet: 0 moons
Orbital Distance	2250 LS (4.5 A.U.)
Length of Year	3.49 Terran years
Length of Day	44 hours 10 minutes
Planetary Diameter	7000 km
Surface Gravity	0.58 G (dense)
Temperature Range	–25°C to 75°C
Atmosphere Type	Terran: 300mm (thin), with 02 at 75mm (minimal), requiring respirator. RAD/0-2.
Hydrosphere Type	22% = landlocked seas and large lakes, but with most of the planet under very arid conditions.
StarNationality	Terran UFP Military Outpost
Sentient Race	Terran humans: UFP personnel and scientists
Population	50,000 Terran humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort C Class + (minimal Tech/10 facility)
Social Organization	Terran Research Colony: Military Discipline
Societal Strength	10
Xeno Acceptance	01%
Government Type	Military Command
Government Support	100% (vote = 100%)
Loyalty Index	100% (revolt = 00%)
Repression Index	00%
Bureaucracy Level	Military Security
Corruption Level	00%
Law Level	16-17
Economic Rating	–
Major Imports	food, parts, vehicles, misc. equipment
Trade Restrictions	Government Contract: Interdicted StarSystem
Trade Acceptance	00%

Sabik VI is a desolate planet recently colonized by the UFP StarForce While the planet officially is rated as a research colony with minimal facilities, it is known that a surprising tonnage of equipment and large numbers of personnel were assigned to that destination. Some have speculated that Sabik VI is, in fact, a major StarBase of the Federation, with a complete BattleFleet assigned there to counter some as yet unannounced threat. Other rumors have it that a major ForeRunner discovery was made at Sabik VI by archeologists of the University of Tycho, and that the StarFleet has mounted a heavy guard over it because of its importance.

Federation Directive: Sabik VI, 5.II.–19 Terran Sector GSC 14.JJ.+000 is placed under Class AAA interdict and Quarantine. Unauthorized vessels entering Sabik SystemSpace will be hailed and then fired upon if they do not immediately heave to and permit boarding inspection. ––By order of Fleet Admiral Richard R. Dickson, Commandant–General, UFP StarForces, StarDate 10.03.2545.

SET III

StarSystem Coord.	3.CC.–45 Terran Sector GSC 14.JJ.+000
Stellar Primary	MOv main sequence star
FTL Conversion	10,000 LS
Planets in System	5
SET III	Type 16 Airless Planet: 1 moon
Orbital Distance	1500 LS (3.00 A.U.)
Length of Year	6.42 Terran years
Length of Day	8 Terran days
Planetary Diameter	6000 km
Surface Gravity	0.50 G (dense)
Temperature Range	–160°C to –80°C
Atmosphere Type	Vacuum: Rad/1 background radiation, rising to RAD/3 during solar flare periods (7 days every 30 days).
Hydrosphere Type	Non-existent, with limited amounts of subterranean ice, necessitating importation of water
StarNationality	UFP Colony
Sentient Race	Human Colonials
Population	2,500,000 humans in domed colonies
Tech Level	Tech/10
StarPort Rating	UFP StarPort B Class 1 (Tech/10 facility)
Social Organization	Wide Open Society
Societal Strength	5
Xeno Acceptance	10%

Government Type	Miners' Republic
Government Support	18% (vote = 50%)
Loyalty Index	72% (revolt = 05%)
Repression Index	05%
Bureaucracy Level	Minimal
Corruption Level	16%
Law Level	1-5
Economic Rating	Exceedingly Rich Industrial (Mining)
Gross Productivity	MCR 250,000
Per Capita Income	CR 100,000
Tax %/Levy	10% = MCR 25,000
Military Spending	05% = MCR 12,500
Major Exports	collapsium, industrial metals, precious metals, gems
Major Imports	food, parts, factory equipment, liquor, luxuries
Trade Restrictions	Free Trade Policy
Trade Acceptance	49%

Set III is a domed mining colony which produces large quantities of collapsium and other metals. Founded in 2416, it has all of the usual wildness of a boom town society. Again, as is unfortunately the case with most rich mining colonies, a criminal element has moved in to dominate many aspects of the social life and corruption and graft is spreading throughout the local administration. IPA agents are busy observing the situation and have assisted the local law enforcement agency, which is the only uncorrupt government body remaining on the planet.

SIRIUS V

StarSystem Coord.	5.EE.–02 Terran Sector GSC 14.JJ.+000
Stellar Primary	A1v/wd binary main sequence and dwarf star
FTL Conversion	10,000 LS
Planets in System	9
SIRIUS V	Type 2 Terran No Seasons Planet: 1 moon
Orbital Distance	2000 LS (4.0 A.U.)
Length of Year	3.58 Terran years
Length of Day	25 hours 25 minutes
Planetary Diameter	10,000 km
Surface Gravity	1.00 G (very dense)
Temperature Range	–65°C to 60°C
Atmosphere Type	Terran: 800mm, with 02 at 150mm. Conditions closely resemble Terran weather.
Hydrosphere Type	79% = 6 continents, 2 sub-continents, and numerous islands and archepelagoes.
StarNationality	UFP Member Planet
Sentient Race	Human Colonials
Population	250,000,000 humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	8
Xeno Acceptance	10%
Government Type	Constitutional Monarchy
Government Support	35% (vote = 61%)
Loyalty Index	70% (revolt = 13%)
Repression Index	09%
Bureaucracy Level	Moderately high
Corruption Level	12%
Law Level	14-15
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 2,500,000
Per Capita Income	CR 10,000
Tax %/Levy	30% = MCR 750,000
Military Spending	20% = MCR 500,000
Major Exports	food, wines, textiles, power metals, petrochemicals
Major Imports	parts, vehicles, aircraft, luxury goods
Trade Restrictions	Free Trade Policy
Trade Acceptance	65%

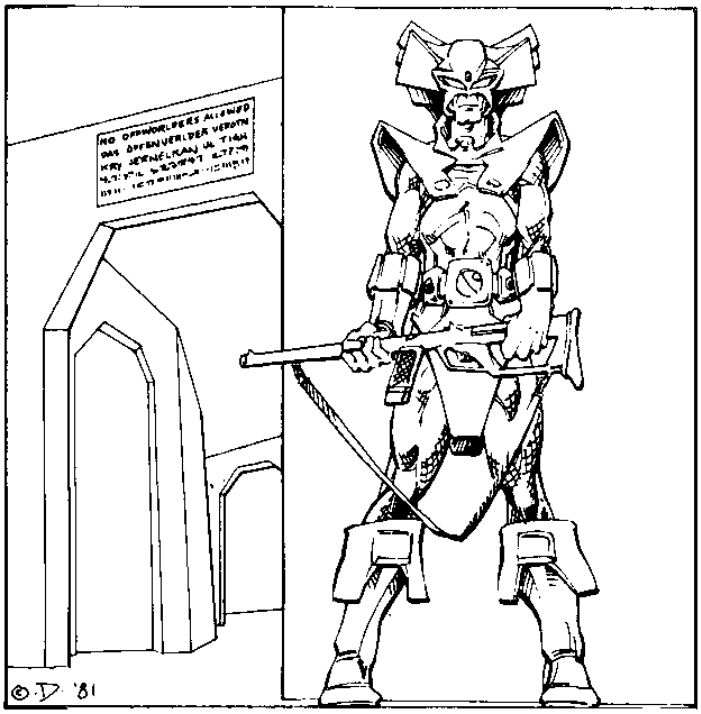
Sirius V is one of the oldest Terran colonies. Sirius V was Terraformed over a 130-year period, until its worst features were eliminated. The planet is a tame one, with all dangerous local wildlife eliminated or relegated to zoos and game parks. The countryside itself is considered to be among the most beautiful in known space.

The Sirian society is Terran in most respects, although rural oriented.

STATOR III

StarSystem Coord.	3.II.–30 Terran Sector GSC 14.JJ.+000
Stellar Primary	G3v main sequence star
FTL Conversion	10,000 LS
Planets in System	6
STATOR III	Type 1 Terran Standard Planet: 2 moons
Orbital Distance	415 LS (0.83 A.U.)
Length of Year	286 days
Length of Day	28 hours 16 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.69 G (moderate density)
Temperature Range	–65°C to 55°C
Atmosphere Type	Terran: 675mm, with 02 at 150mm (slightly thin). Humidity higher than Terran normal.
Hydrosphere Type	80% = 4 continents and 7 large islands, with innumerable islands and archepelagoes.
StarNationality	Independent Planet
Sentient Race	Humanoid
Population	250,000,000 humanoids
Tech Level	Tech/9
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	6
Xeno Acceptance	50%
Government Type	Constitutional Monarchy
Government Support	28% (vote = 60%)
Loyalty Index	65% (revolt = 18%)
Repression Index	10%
Bureaucracy Level	Pervasive, with much red tape
Corruption Level	18%
Law Level	14-15
Economic Rating	Average Agricultural
Gross Productivity	MCR 1,125,000
Per Capita Income	CR 4500
Tax %/Levy	30% = MCR 337,500
Military Spending	15% = MCR 170,000
Major Exports	food, textiles, luxury goods, industrial chemical
Major Imports	electronic and computer parts, misc. tools and equipment
Trade Restrictions	10% import duty on non-preferred imports
Trade Acceptance	55%

Virtually nothing is known about the hinterland of Stator, as all off-worlders are regarded with deep suspicion and are not allowed past the StarPort facilities. Despite their high technological level, Statorians had not developed space travel of any kind before they were discovered by Contact Service Survey personnel in 2466. It required over 30 years of hard negotiation to acquire 1000 square km of territory on which



to construct a StarPort facility to open any form of trade with this xenophobic race. Most significant, the Statorians are clearly hiding something.

Statorians closely resemble the humanoids of Alphard V, and BRINT has recruited a number of Alphari for penetration operations to discover what it is that the Statorians appear to be hiding. Surgically altered humans also are being trained for the operations.

SUCCARATH IV

StarSystem Coord.	9.GG.–80 Terran Sector GSC 14.JJ.+000
Stellar Primary	F7v main sequence star
FTL Conversion	10,000 LS
Planets in System	11
SUCCARATH IV	Type 8 Terran Steppe Planet - No Seasons: 1 moon
Orbital Distance	635 LS (1.27 A.U.)
Length of Year	1.15 Terran years
Length of Day	36 hours 12 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	–35°C to 75°C
Atmosphere Type	Terran: 850mm, with 02 at 175mm (normal). Radiation levels vary from RAD/0-6 (nuclear fallout).
Hydrosphere Type	34% = landlocked seas, contaminated
StarNationality	Independent Planet: Bug Hive
Sentient Race	Larvae (Bug)
Population	500,000,000(est) = 100,000,000 warriors
Tech Level	Tech/7-8
StarPort Rating	StarPort AAAAA Class 1 (Tech/8 facility)
Social Organization	Larvan Hive
Societal Strength	10
Xeno Acceptance	100% prejudice: instant attack
Government Type	Hive Mind
Economic Rating	Poor Industrial
Gross Productivity	MCR 1,400,000
Per Capita Income	CR 3500/Worker
Military Spending	50% = MCR 700,000

Succarath IV is one of 5 Bug planets remaining in the Terran StarSector after the Bug Raids of 2281-2310. A large portion of the planetary surface have been ravaged by the heavy thermonuclear bombardment laid down by the 4th and 10th BattleFleets of the Terran Union in 2308 to cover the retreat of the decimated 15th and 16th Marine Assault Corps when they failed to penetrate the Hive defenses. Personnel of all races are advised to avoid the starsystem and to stand to battle stations when in this region of the StarSector for Bug patrols are heavy and utterly hostile.

SURA II

StarSystem Coord.	5.II.+35 Terran Sector GSC 14.JJ.+000
Stellar Primary	M1v main sequence star
FTL Conversion	10,000 LS
Planets in System	8
SURA II	Type 13 Airless Planet: 1 moon
Orbital Distance	200 LS (0.40 A.U.)
Length of Year	114 Terran days
Length of Day	114 Terran days
Planetary Diameter	6000 km
Surface Gravity	0.60 G (very dense)
Temperature Range	–140°C to 100°C
Atmosphere Type	Vacuum: RAD/1-3 (BrightSide)
Hydrosphere Type	Subterranean ice deposits
StarNationality	UFP Colony
Sentient Race	Human Colonials
Population	250,000 humans in domed cities
Tech Level	Tech/10
StarPort Rating	UFP StarPort C Class 2 (Tech 10+ facility)
Social Organization	Wide Open Society
Societal Strength	5
Xeno Acceptance	06%
Government Type	Miner's Republic
Government Support	15% (vote = 50%)
Loyalty Index	50% (revolt = 08%)
Repression Index	05%
Bureaucracy Level	Minimal
Corruption Level	20%
Law Level	1-5
Economic Rating	Exceedingly Rich Industrial (Mining)
Gross Productivity	MCR 37,500
Per Capita Income	CR 75,000
Tax %/Levy	10% = MCR 3750
Military Spending	05% = MCR 1875
Major Exports	collapsium, industrial metals, precious metals
Major Imports	food, parts, liquor
Trade Restrictions	Free Trade Policy
Trade Acceptance	35%

Sura II is a standard airless palnet mining colony, with surface conditions similar to those on Luna. The planet is a veritable treasure house of minerals, including a rich deposit of collapsium.

The domed colonies are all but totally controlled by mob elements, but the last act of the previous colonial government was to call in the IPA to enforce law and order. Since the action was tied to a 20-year service contract drafted by IPA's elite legal staff, the current corrupt administration has been unable to break it or to legally eject the Interstellar Police. The result has been a form of undeclared war between the IPA and the criminal element. Since the courts are riddled with corruption and graft, the IPA officers attempt to bring Federation charges against the criminals they arrest or else see them have a good 75% chance of going free, even if guilty.

TALOS III

StarSystem Coord.	9.AA.–30 Terran Sector GSC 14.JJ.+000
Stellar Primary	KOv main sequence star
FTL Conversion	10,000 LS
Planets in System	7
TALOS III	Type 1 Terran Standard Planet: 0 moons
Orbital Distance	335 LS (0.67 A.U.)
Length of Year	231 days
Length of Day	29 hours 19 minutes
Planetary Diameter	11,000 km
Surface Gravity	0.84 G (dense)
Temperature Range	–45°C to 50°C
Atmosphere Type	Terran: 650mm, with 02 at 100mm. Oxygen levels at higher altitudes prove minimal, requiring use of breathing apparatus over 3000m
Hydrosphere Type	83% = 3 continents and many island archepelagoes and island chains, with extensive swamps in low-lying areas. Talos III approaches Ocean Planet status, with extensive seas having a moderating influence over the climate.
StarNationality	UFP Colony
Sentient Race	Human Colonials: former Lost Colony
Population	2,500,000 humans
Tech Level	Tech/8-9
StarPort Rating	UFP StarPort B Class 2 (Tech/10+ facility)
Social Organization	Open Society
Societal Strength	6
Xeno Acceptance	15% prejudice
Government Type	Republic
Government Support	42% (vote = 64%)
Loyalty Index	80% (revolt = 05%)
Repression Index	06%
Bureaucracy Level	Minimal, largely provided by UFP
Corruption Index	09%
Law Level	1-5
Economic Rating	Rich Agricultural
Gross Productivity	MCR 15,937.5
Per Capita Income	CR 6375
Tax %/Levy	30% = MCR 4780
Military Spending	10% = MCR 1600
Major Exports	luxury crafts and foods, jewellery made of silver and gold
Major Imports	parts, vehicles, misc. tools, and equipment
Trade Restrictions	Free Trade Policy
Trade Acceptance	25%

Talos III was colonized by political dissidents from Terra in 2097 and soon lost contact with the rest of humanity. Rediscovered in 2512, the colony was found thriving at a Tech/7 level, but without the resources to construct spacecraft. The colony has been incorporated into the UFP as a non-voting member.

Talos is actually an aquatic planet in many respects, as the sea is never more than a 100 km distance from any point, with deep gulfs and bays extending far inland. Some 90% of the population lives in coastal areas, most engaged in farming or fishing. The unique fish, grains and fruits of Talos III command a good price throughout the StarSector because of their superb flavor.

The people of Talos are peace-loving and friendly once their mistrust of strangers is overcome. Social life and government are more informal than on most planets in the Federation. Indeed, the Talosians have a rather lackadasical manner of approaching any problem, secure in their belief that everything will work out in the end. This lack of concern tends to be most frustrating to more organized personalities used to keeping to a fixed schedule and performing a task with crisp efficiency. The Trade Acceptance index clearly reflects this unfortunate attitude on the part of the Talosians, who will typically put off to tomorrow what can be put off until tomorrow.

Talosian luxury items and jewellery can command +10.d10% premiums upon resale. If reasonably prompt deliveries can be obtained, a good profit can be turned from trade with the planet.

TAU CETI II (CETA)

StarSystem Coord.	6.FF.+17 Terran Sector GSC 14.JJ.+000
Stellar Primary	AOv main sequence star
FTL Conversion	10,000 LS
Planets in System	12
TAU CETI II	Type 2 Terran No Seasons Planet: 11 moons and moonlets
Orbital Distance	4000 LS (8.00 A.U.)
Length of Year	8 Terran years
Length of Day	25 hours 00 minutes
Planetary Diameter	15,000 km
Surface Gravity	1.15 G (dense)
Temperature Range	−80°C to 55°C
Atmosphere Type	Terran: 1000mm, with 02 at 200mm (rich). Weather is comparable to Terran conditions.
Hydrosphere Type	79% = 5 continents, 9 large islands, and several large island archepelagoes
StarNationality	UFP Member Planet
Sentient Race	Ursoid
Population	250,000,000 Ursoids
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA Class 1 (Tech/10+)
Social Organization	Aristocratic, but with democratic elements
Societal Strength	8
Xeno Acceptance	10%
Government Type	Constitutional Monarchy
Government Support	38% (vote = 88%)
Loyalty Index	88% (revolt = 02%)
Repression Index	02%
Bureaucracy Level	Moderate, ponderous but thorough
Corruption Level	07%
Law Level	10-13
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 3,125,000
Per Capita Income	CR 12,500
Tax %/Levy	30% = MCR 937,000
Military Spending	20% = MCR 625,000
Major Exports	food, liquor, textiles, industrial metals, industrial chemicals
Major Imports	armaments, parts, misc. tools and equipment
Trade Restrictions	10% import duty on non-preferred imports
Trade Acceptance	60%

Tau Ceti II (Ceta) is a very salubrious world which has become one of the major centers of learning in the Federation, with scholars and students from every corner of the confederacy to study at the famous Ceta University. The populace itself is a unique ursoid race closely resembling Blarads, but native to Ceta. When first contacted by Terran explorers in 2063, the Cetans were struggling to reconstruct their planet after a devastating world war. With Terran help, this Tech/5 culture soon began to develop into a stable society which eventually took on many Terran traits and beliefs.

TERRA/SOLARIAN SYSTEM

StarSystem Coord.	000/00 Terran Sector GSC 14.JJ.+000
Stellar Primary	G2v main sequence Marker Star
FTL Conversion	10,000 LS
Planets in System	10

SOL I (MERCURY): Type 15 Airless High Temperature Planet at 195 LS (0.39 A.U.) with a year of 88 Terran days. Day = 58.5 Terran days. Temperature = −175°C (night) to 375°C (day). Diameter = 4850 km. Gravity = 0.37 G. Mercury is a member of the High Republic of the Terran Union and an Associate Member of the UFP. Population is 2,500,000 in 12 domed cities and numerous mining sites. Chief Exports are all metals. Chief Imports are food, xeno-vehicles, factory equipment, general tools and equipment. Mercury is classed as an Exceedingly Rich Industrial (Mining) planet with Tech/10. Personnel require radiation shielding and insulated suits to survive the high daytime surface temperatures and intense RAD/2-7 solar radiation on BrightSide. During solar storm activity, RAD/10-12 levels can be attained. Molten metals with low melting points (lead, for example) can be encountered in pools or under thin crusts in BrightSide equatorial regions. Seismic activity is sometimes intense (Richter 5.0-6.5).

SOL II (VENUS): Type 15 High Pressure and High Temperature Planet at 360 LS (0.72 A.U.) with a year 225 Terran days long. The day on Sol II is 243 Terran days in length. Temperature is 485°C. Atmosphere is under pressure of 90 Terran atmospheres (68,500mm), with 97% CO_2 and sulphuric acid at Corrosion Index 09% hourly on unspecialized equipment. Diameter is 12,000 km and surface gravity is 0.87 G. Surface conditions are exceedingly hazardous and no equipment currently known can withstand Venusian conditions for more than 50 hours before breakdown probabilities arise. No life forms have been detected.

SOL III (TERRA): Type 1 Standard Terran Planet at 500 LS (1.00 A.U.) with a year of 365.25 days. The day is 23 hours and 56 minutes. Temperature range is −75°C to 65°C, with relatively mild climatic conditions over a major portion of the surface of the planet. Atmosphere is Terran Standard with few significant contaminants. Hydrosphere is 78% which gives 6 continents, 1 sub-continent, and numerous islands. Humidity and precipitation are Terran norms.

StarNationality	Capital Planet of the United Federation of Planets and the High Republic of the Terran Union.
Sentient Race	Humanity
Population	5,000,000,000 humans and other races (as minorities)
Tech Level	Tech/10+
StarPort Rating	UFP StarPort AAAAA x5 Class 1 (Tech/10+)
Social Organization	Open Society: Socio-Technic Culture
Societal Strength	10
Xeno Acceptance	01%
Government Type	Confederacy (UFP); Republic(Terran Union)
Government Support	40% (UFP); 50% (Terran Union) (vote = 59%)
Loyalty Index	90% (revolt = 10%)
Repression Index	04%
Bureaucracy Level	High (UFP); Moderate (Terran Union)
Corruption Level	01% (UFP); 08% (terran Union)
Law Level	16-17
Economic Rating	Very Rich Industrial
Gross Productivity	MCR 125,000,000
Per Capita Income	CR 25,000
Tax %/Levy	30% = MCR 37,500,000
Military Spending	20% = MCR 25,000,000
Major Exports	starships, machine tools, all parts, factory equipment, vehicles, aircraft, military equipment, armaments, polytextiles, general tools, misc. equipment.
Major Imports	food, furs, liquor, wines, luxury goods, all metals, gems, petrochemicals, industrial chemicals, textiles
Trade Restrictions	Free Trade Policy
Trade Acceptance	90%

Terra is a truly cosmopolitan society, with almost every race and planet in the Federation present on Terra. The bulk of the population lives in superbly designed urban complexes with attractive landscaping, parks, and recreational areas throughout even the most densely populated regions. The rural countryside is equally pleasant, with large areas of wilderland as well as vast high-technology farming complexes.

There are no longer any true wilderness areas on Terra. Most wildlife is of the relatively harmless variety, although smaller carnivores are allowed to roam quite freely to control animal populations. The dangerous carnivores and large grazers (lions, tigers, elephants, rhinos, etc.) are all in zoos or designated game preserves. The natural habitat is regarded as the heritage of all humanity, and it is protected by severe penalties for unlicensed hunting or vandalism.

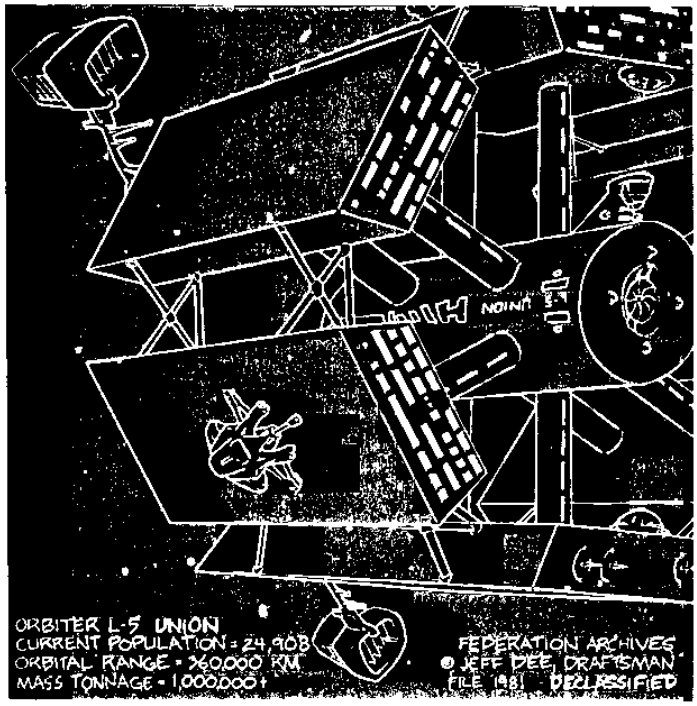
Few in the Terran society can be considered needy or vocationally disadvantaged. Using the most advanced of educational techniques, citizens can attain at least a minimum level of expertise in a field for which they have some aptitude and liking, and salaries are equal to the task of providing a reasonably comfortable and secure living. There is rarely a surplus of labor either, for Terra is the chief manufacturing center of the whole Federation and also the Arsenal for its armed forces. Only about 04% of the population is genuinely dissatisfied with its lot and must be watched and occasionally restrained from excessive behavior. Society as a whole determine the limits of advancement for any individual by merit and expertise, so that it is a classless society. It is not for accidents of birth to provide more than an entry to opportunity for the individual, but educational and experience credentials do the same.

The political situation on Terra reflects the split in Terran thinking almost from the moment humanity went to the stars. The governing Federation Party enjoys a 59% majority, and the opposition Unionist Party 41%. The Federation Party supports the concept of UFP fully, arguing that all member planets and races must have a say in which direction the Federation will take. The Terran-oriented Unionists hold that Terra should be the dominant force, and it is whispered that the more radical elements desire the formation of a Terran Empire, pure and simple. Should a major crisis occur which removes from office the Federation Party, a revolt determination indicates that the radicals have gained control of the Unionist Party and will declare the Empire. Such an act could well destroy the Federation and bring a general civil war, as each planet of the Federation will be placed under extreme crisis conditions and must vote to follow or not. In that instance, the revolt index of each planet (including Terra), represents the percentage of the population that will actively resist the Empire.

All sociological and economic factors apply for the entire Solarian System, except for the general Economic Rating, which determines buy and sell factors.

SOL III (LUNA): Airless satellite of Terra at 1.275 LS (382,500 km) from Terra. It orbits Terra each 27.32 days and rotates so that the same face always faces Terra. Temperatures range from 145°C (darkside) to 105°C (brightside). Diameter is 3475 km and surface gravity is 0.175 G. The Lunar Republic is a member of the High Republic of the Terran Union and is also a full member of the Federation. The population is 50,000,000 in 41 domed cities and 570 smaller communities and mining sites. Chief exports are food and industrial metals. Chief imports are parts, general equipment, misc. tools, xeno-vehicles. Luna is rated at a Very Rich Agricultural area, but it has a strong industrial (mining and manufacturing) base as well. Tycho Naval StarBase is an AAAAA x5 installation, one of the strongest in the Federation.

SOL III–L5: 18 high-orbit space cities at 1.20 LS (360,000 km) from Terra orbit the planet each 25 days. Gravity is artificial and ranges from 0.35 G to 1.00 G. The L–5 colonies together form the Orbital Republic of High Terra and are members of the High Republic of the Terran Union and have Associate Member status in the Federation. Population is 500,000. Chief Exports are high-tech products and starships. Chief Imports are raw materials, power metals, wines and luxury goods. The L–5 colonies are rated as Very Rich Industrial communities, but they have the capacity to provide for most of their food requirements through intensive hydroponic farming. Each of the L–5s is now fitted out as an Orbital Fortress with battleship firepower and can maneuver at 5 LS speeds under low power TISA drive. On occasion, one of these orbiting factory/fortress cities will warp out to the asteroid belt for intensive smelting operations. (An L–5 is about 5 km x 0.5 km and has a mass equivalent of 1,000,000t, though its volume is about 1 cubic kilometer, with a population of about 25,000 permanent inhabitantts and room for up to 50,000.) the colonies are:



L-5 O'Neill	L-5 Copernicus	L-5 Doppler
L-5 Alliance	L-5 Brahe	L-5 Hale
L-5 Constitution	L-5 Keppler	L-5 Lowell
L-5 Confederation	L-5 Flammarion	L-5 Pickering
L-5 Union	L-5 Messier	L-5 Schmidt
L-5 Washington	L-5 Galileo	L-5 Shapley

SOL IV (MARS): Type 14 Low Pressure Planet at 760 LS (5.07 A.U.) with a year of 1.88 Terran years and a day of 24 hours and 37 minutes. Temperature range is −100°C to 25°C. The atmosphere is 75mm pressure, chiefly CO_2. Diameter is 6800 km and surface gravity is 0.38 G. Mars is a member of the High Republic of the Terran Union and an Associate Member of the UFP. Population is 100,000,000 in 116 domed cities and over 500 smaller communities. Chief Exports are heavy equipment and armaments. Chief Imports are high-tech parts, food, wine, luxury goods. Mars is classed as a Very Rich Industrial Planet. It is one of hte most important Arsenal Planets of the Federation , and an AAAAA x2 Class 1 Naval StarBase is located at Nix Olympica. Deimos and Phobos, the Martian moons, are fitted as battleship class Orbital Fortresses.

SOLARIAN ASTEROID BELT: 150,000 planetoids of 1 km diameter or larger at an average of 1500 LS (3.00 A.U.) from Sol. They orbit the primary for a year of approximately 5.20 Terran years. Temperature is −145°C. Gravity is minimal, but the largest approach 0.05 G. Population is 500,000 in the domed cities of Pallas, Ceres and Vesta and in many small mining sites. Chief Exports are collapsium, industrial metals, gold, silver, and platinum. Chief Imports are food, wine, liquor, mining and misc. equipment and parts. The Belt is a Very Rich Industrial (Mining) area with a decided Wild West flavor because of the gold rush nature of life in the asteroids.

SOL V (JUPITER): Type 20 Gas Giant at 2600 LS (5.20 A.U.) from Sol with a year of 11.86 Terran years. Each day is 9 hours and 51 minutes long. The temperature in the upper atmosphere is −130°C and the atmosphere is composed of Hydrogen, Helium, Methane and small amounts of other gases at incredible pressures. The planetary diameter is 140,000 km and gravity is 2.54 G. Jupiter is a ptted star that never quite ignited, for it is slightly under the minimum mass requirement for stellar birth beyond the prot-star stage. There are huge life forms in the upper atmosphere, notably the vast Jovian **Medusa** and the delta-shaped **Manta Shark**. The environment is hostile because of the immense pressures even in the high atmosphere. Experimental operations have been conducted at high altitude by balloon-hydrox aerospace craft armored by DDKDX forcefields, but it is not expected that any permanent bases can ever be established on such a planet. Jupiter has nine major satellites, two of which are Terraformed.

SOL Viv (GANYMEDE): Terraformed satellite of Jupiter, it is a Type 1 Terran Planet with an orbit at 2.20 LS (660,000 km) from Jupiter and a 7.15 day revolution. Each day is 33 hours and 16 minutes. The temperature ranges from −25°C in winter to 25°C in summer with a managed climate. The atmosphere is Terran at 450mm and 02 at 150mm. Diameter is 5150 km for a surface gravity of 0.30 G. Hydrosphere of 48% is in carefully arranged patterns of lakes and small seas to give the required humidity and precipitation levels. Population is 75,000,000 in 87 cities and over 5000 smaller communities. Chief Exports are food, textiles, and luxury goods. Chief Imports are parts, general tools, misc. equipment and vehicles. Ganymede is rated as a Very Rich Agricultural area. It has member status in both the Terran Union and the UFP.

SOL Vv (CALLISTO): Terraformed satellite of Jupeter for a Type 1 Terran Planet. Its orbit is at 6.275 LS (1,882,500 km) from Jupiter with a 16.7 day revolution. The day is 25 hours and 17 minutes. Temperature ranges from −25°C in winter to 25°C in summer with a managed climate. Atmosphere is Terran with 550mm and 02 at 175 mm. Diameter is 5175 km for a gravity of 0.31 G. The hydrosphere is 52% in carefully prepared patterns of lakes and small seas for required precipitation and humidity levels. Population is 50,000,000 in 73 cities and in over 5000 smaller communities. Chief Exports are food, textiles, luxury goods, poer metals. Chief Imports are parts, general tools, misc. equipment and vehicles. Callisto is rates as a Very Rich Agricultural area. It has member status in both the Terran Union and the United Federation of Planets.

SOL VI (SATURN): Type 20 Ringed Gas Giant at 4480 LS (1334 million km) from Sol with a year equal to 29.46 Terran years. A day is 10 hours and 14 minutes. Surface temperatures are approximately −175°C in a Jovian type atmosphere with incredible pressures. The diameter of the planet is 105,000 km for a gravity of 1.16 G. There are plans for operations to be conducted in the upper atmosphere of Saturn as described for Jupiter. No life forms have been discovered. Saturn has 10 moons, one of which is Terraformed.

SOL VIvii (TITAN): Terraformed satellite of Saturn to create a Type 1 Terran Planet with an orbit 2.50 LS (750,000 km) from Saturn and a 15.95 day revolution. Each day is 28 hours and 30 minutes. Temperature on Titan ranges from −25°C to 25°C in summer with a managed climate. The atmosphere is Terran at 550mm pressure, with 02 at 150mm. Diameter of Titan is 5800 km for a gravity of 0.38 G. The hydrosphere is 50% in carefully arranged patterns of lakes and small seas to give the required precipitation and humidity levels. The population is 50,000,000.

SOL VII (URANUS): Type 20 Gas Giant at 9150 LS (18.3 A.U.) for a year that is 84.01 Terran years long. Each day is 23 hours. The temperature on Uranus is approximately −200°C in a Jovian type huge pressure atmosphere. The planetary diameter is 51,500 km for a surface gravity of 1.12 G. No life forms have been discovered. There are five satellites.

SOL VIII (NEPTUNE): Type 20 Gas Giant at 15,000 LS (30.0 A.U.) from Sol with a year that is 164.8 Terran years long. Temperatures are near −220°C in a Jovian type atmosphere with high pressure. Planetary diameter is 49,250 km for a surface gravity of 1.18 G. No life forms have been detected. Neptune has two satellites.

SOL IX (PLUTO): Type 18 Airless Distant Planet at 20,000 LS (40.0 A.U.) from Sol. Each year is 248.4 Terran years long. The temperature approaches −250°C and the atmosphere is frozen with extensive oxygen and nitrogen. The diameter is 5900 km for a surface gravity of 0.50 G. Surface conditions are extremely hazardous and untrained personnel may experience difficulty. Pluto is the site of Tombaugh Outpost, an AAAAA Class 1 StarBase and Scientific Research Outpost with an estimated 50,000 personnel.

SOL X (SPECTRE): Type 18 Airless Distant Planet at 27,000 LS (54.0 A.U.) from Sol. The year is 396.8 Terran years long. The temperatures on Spectre reach −265°C. Diameter is 4000 km and gravity is 0.34 G. Spectre is the advanced base of the StarFleet Command. The region for 7500 LS around is interdicted and heavily patrolled. Any vessel approaching Spectre will be hailed and, if it does not immediately heave to, shall be fired upon. StarFleet Headquarters is an AAAAA x 10 Class 1 StarBase with an estimated 500,000 personnel and very heavy planetary defense armaments.

THOTH IV

StarSystem Coord.	2.AA.−40 Terran Sector GSC 14.JJ.+000
Stellar Primary	M7iv subgiant star
FTL Conversion	20,000 LS
Planets in System	8
THOTH IV	Type 14 Terran Ice Planet: 1 large moon
Orbital Distance	1500 LS (3.00 A.U.)
Length of Year	2.12 Terran years
Length of Day	52 hours 17 minutes
Planetary Diameter	13,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	−100°C to 20°C
Atmosphere Type	Terran: 900mm (dense), with 02 at 175mm (normal). Weather is characteristically stormy and savage.
Hydrosphere Type	79% = all seas frozen and vast ice caps overlying all land surfaces.
StarNationality	UFP Outpost (Procyon colonists)
Sentient Race	MekPurr Feline Colonials
Population	50,000 MekPurrs/500,000 Meks
Tech Level	Tech/10+
StarPort Rating	MekPurr StarPort B Class 2 (Tech/10+)
Social Organization	Open Society
Societal Strength	10
Xeno Acceptance	09%
Government Type	MekPurr Feudal Aristocracy
Government Support	80% (vote = 66%)
Loyalty Index	96% (revolt = 01%)
Repression Index	01%
Bureaucracy Level	Minimal, very efficient
Law Level	1-5
Economic Rating	Rich Agricultural
Gross Productivity	MCR 3750
Per Capita Income	CR 7500/Mek = CR 75,000/MekPurr
Tax %/Levy	50% = MCR 1500
Military Spending	40% = MCR 1500
Major Exports	luxury foods, furs, gems, silver, gold, platinum
Major Imports	parts, vehicles, armaments
Trade Restrictions	Free Trade Policy
Trade Acceptance	25%

Thoth IV was established as a MekPurr colony in 2345 by Procyon MekPurrs, immediately after the defeat of the Hiss in the Land Grab of 2309-2338. The colony is, strangely enough, devoted to agricultural pursuits, with luxury foods grown in automated hydroponic complexes (10.d10% profit on resale, in addition to usual returns). In addition, wholesale transplantations of animal and plant life from Alphard (Alphari Cave Bear), Leonidas (Leonidan SnowCaat, Thaurruf, Akka Tharrlu, Tekka Nu, M'Raaugh, Torsaurgh), 36 Ophiuchi (IceWolf) have been made to provide a good representation of fine fur-bearing animals with some sporting value. In all, over 17,000 species were transported to Thoth IV to put some life into the previously desolate world.

See notes on Procyon V and Baast III for other details on MekPurr culture and society.

VEGA V

StarSystem Coord.	6.FF.+17 Terran Sector GSC 14.JJ.+000
Stellar Primary	AOv main sequence star
FTL Conversion	10,000 LS
Planets in System	10
VEGA V	Type 1 Terran Standard Planet: 2 moons
Orbital Distance	4000 LS (8.00 A.U.)
Length of Year	7.99 Terran years
Length of Day	24 hours 06 minutes
Planetary Diameter	12,000 km
Surface Gravity	1.00 G (dense)
Temperature Range	−85°C to 75°C
Atmosphere Type	Terran: 900mm, with 02 at 200mm (rich). Severe winter storms in higher latitudes.
Hydrosphere Type	80% = 9 minor continents and numerous islands and island archepelagoes.
StarNationality	UFP Member Planet

Sentient Race	Human Colonials
Population	500,000,000 humans
Tech Level	Tech/10
StarPort Rating	UFP StarPort AAAAA x2 Class 1 (Tech/10+)
Social Organization	Open Society
Societal Strength	9
Xeno Acceptance	04%
Government Type	Republic
Government Support	40% (vote = 70%)
Loyalty Index	90% (revolt = 01%)
Repression Index	06%
Bureaucracy Level	Moderately high, with much red tape
Corruption Level	15%
Law Level	14-15
Economic Rating	Very Rich Agricultural
Gross Productivity	MCR 75,000,000
Per Capita Income	CR 15,000
Tax %/Levy	30% = MCR 22,500,000
Military Spending	20% = MCR 15,000,000
Major Exports	food, wines, luxury goods
Major Imports	vehicles, aircraft, parts, misc. equipment
Trade Restrictions	10% duty on agricultural products
Trade Acceptance	75%

Vega V is a pleasant agricultural planet colonized in 2099 by Terrans from the old North American Federation. The planet has prospered as a prime supplier of food, luxury goods, and petrochemicals to Terra and the other industrial worlds of the Home Planets.

Life on Vega V is rather staid and ultra-conservative, with tradition playing an important part in the lives of the inhabitants. However, the Vegans greatly value individual freedom and have contributed greatly to the defense of the ideals for which the Terran Union and now the Federation stand. Vegan contingents represent a good portion of the StarForces of the UFP and have fought valiantly in every conflict threatening the security of humanity and its allies.

VISHNU II

StarSystem Coord.	5.HH.+60 Terran Sector GSC 14.JJ.+000
Stellar Primary	G2v main sequence star
FTL Conversion	10,000 LS
Planets in System	8
VISHNU II	Type 1 Terran Standard Planet: 0 moons
Orbital Distance	165 LS (1.10 A.U.)
Length of Year	1.18 Terran Years
Length of Day	26 hours 35 minutes
Planetary Diameter	8000 km
Surface Gravity	0.68 (dense)
Temperature Range	−65°C to 50°C
Atmosphere Type	Terran: 650mm (slightly thin), with 02 at 150mm. Colder winters than on Terra.
Hydrosphere Type	75% = 7 continents and several large island archepelagoes. Adequate humidity and precipitation.
StarNationality	UFP Affiliate: Indpendent Lost Colony

Sentient Race	Human Colonials
Population	250,000 humans
Tech Level	Tech/3
StarPort Rating	Vishnu D landing ground, no facilities
Social Organization	Aristocratic Society
Societal Strength	6
Xeno Acceptance	25%
Government Type	Feudal
Government Support	20% (vote = 55%)
Loyalty Index	58% (revolt = 30%)
Repression Index	45%
Bureaucracy Level	Minimal
Corruption Level	18%
Law Level	14-15
Economic Rating	Poor Agricultural
Gross Productivity	MCR 93.75
Per Capita Income	CR 375
Tax %/Levy	30% = MCR 28
Military Spending	20% = MCR 18.75
Major Exports	food, furs, gold, silver, gems
Major Imports	general tools, misc. equipment
Trade Restrictions	15% import duty
Trade Acceptance	30%

Little more is currently known about Vishnu II, other than the minimal facts listed above. The planet was rediscovered in 2549 and has not yet been thoroughly surveyed by a Contact Service team.

STARLINES OF THE TERRAN SECTOR

Many of the planets in the Terran StarSector are linked by major StarShip lines. The following schedules present the routes followed and the usual tariffs for passengers and cargo. In addition to the major StarLines, a considerable number of small companies offer service over the same routes, often between only a few planets and at rates 10-30% higher. However, bookings on the major StarLines are generally full (20% chance of a berth in any category), so one of the minor lines will often have to be taken.

Boarding fees are paid at the start of a starvoyage and do not have to be paid again if a passenger is transshipping from one vessle or StarLine to another:

High Passage Boarding Fee	CR 250
Middle Passage Boarding Fee	CR 125
Low Passage Boarding Fee	CR 75
ColdSleep Boarding Fee	CR 50

Passenger rates vary considerably, depending upon the StarLine and the destination, as numerous contracts are held by many of the StarLines with planets along their routes to keep the rates down.

TRANS–GALACTIC STARLINES

Trans-Galactic is the largest StarLine in the Federation. Owned and operated by the Federation government, Trans-Galactic offers frequent flights to many of the Home Stars, depending upon the size of the planetary populations. Trans-Galactic vessels are all large, well-crewed, and superbly appointed HighLiners massing 100,000t or more. Accomodations and cuisine are excellent. The typical cruising speed is 12 LY per day. Fares and cargo tariffs are surprisingly low, typically discounted 25-33% from full rates because of government subsidies, numerous planetary contracts, and the generally high volume of traffic.

Trans-Galactic also offers InterSector service to other StarSectors from Terra. The fares and cargo tariffs are no as heavily subsidized by the Federation government, although subsidies do exist to encourage the maximum in interstellar trade and commerce, and to assist businessmen and colonists:

InterSector High Passage . . . .CR 10,000 plus CR 200 per LY over 200
InterSector Middle Passage: . . .CR 5000 plus CR 100 per LY over 200
InterSector Low Passage . . . . . CR 3000 plus CR 60 per LY over 200
InterSector ColdSleep . . . . . CR 2000 plus CR 30 per LY over 200
Cargo Rates . . . . . .CR 30 per ton x LY
Bulk Cargo Rates . . . . . .CR 15 per ton x LY for 100t+ shipments
Federation Veterans . . . . . –2% x years of service for fare/cargo*

* To a maximum of 40% discount for fares or 20% discount for cargo.

STARCONNECTION	DISTANCE	FARES & CARGO RATES/TON (CR)				
		HIGH	MIDDLE	LOW	COLD	CARGO
Terra/Procyon	12 LY	2000	1000	600	400	320
Procyon/Sirius	10 LY	1675	840	500	335	270
Sirius/Terra	09 LY	1500	750	450	300	240
Terra/Tau Ceti	12 LY	2000	1000	600	400	320
Tau Ceti/40 Eridani	12 LY	2000	1000	600	400	320
40 Eridani/Sirius	10 LY	1675	840	500	335	270
Sirius/Terra	09 LY	1500	750	450	300	240
Tau Ceti/Altair	16 LY	2680	1340	800	535	430
Altair/Rigil Kentaurus	20 LY	3350	1675	1000	665	540
Terra/Altair	15 LY	2500	1250	750	500	400
Altair/Formalhaut	16 LY	2680	1340	800	535	430
Formalhaut/Caph	52 LY	8700	4350	2600	1740	1390
Caph/82 Eridani	55 LY	9200	4600	2750	1840	1470
82 Eridani/Tau Ceti	12 LY	2000	1000	600	400	320
Tau Ceti/Altair	16 LY	2680	1340	800	535	430
Altair/70 Ophiuchi	08 LY	1340	670	400	265	210
70 Ophiuchi/Vega	18 LY	3000	1500	900	600	480
Vega/Sura	48 LY	8000	4000	2400	1600	1280
Sura/Alphecca	45 LY	7500	3750	2260	1500	1200
Alphecca/Hathor	24 LY	4000	2000	1200	800	640
Hathor/Ptah	26 LY	4350	2175	1300	870	695
Ptah/Avatar	62 LY	10380	5190	3100	2075	1660
Terra/Vega	28 LY	4680	2340	1400	930	750
Terra/Rigil Kentaurus	04 LY	670	335	200	135	105
Rigil Kentaurus/36 Ophiuchi	18 LY	3000	1500	900	600	480
36 Ophiuchi/Arcturus	20 LY	3350	1675	1000	665	540
Arcturus/Denebola	25 LY	4180	2090	1250	835	670
Terra/Helios	43 LY	7200	3600	2150	1440	1150
Helios/Maat	33 LY	5500	2750	1650	1100	880
Maat/Baast	30 LY	5000	2500	1500	1000	800
Baast/Attar	20 LY	3350	1675	1000	665	540
Maat/Set	24 LY	4000	2000	1200	800	640
Set/Thoth	49 LY	8200	4100	2450	1640	1300
Terra/Leonidas	75 LY	12500	6250	3750	2500	2000
Leonidas/Marathon	33 LY	5500	2750	1650	1100	880

CETA STARWAYS

Ceta StarWays is a well-established StarLine offering weekly starflights between most points on its routes. Ceta StarLiners are large and very comfortable. Interconnecting starflights are available with Trans-Galactic at Set and Attar, and with Mira Lines at Ankaa. Ceta StarWays specializes in bulk cargo haulage and colonial passenger service, but its spacious vessels boast luxurious First Class accomodations and superb cuisine. Average cruising speeds are about 10 LY.

STARCONNECTION	DISTANCE	FARES & CARGO RATES/TON (CR)				
		HIGH	MIDDLE	LOW	COLD	CARGO
Tau Ceti/Ankaa	81 LY	15180	7590	4550	3000	2400
Ankaa/Archenar	36 LY	6750	3400	2000	1350	1080
Archenar/Canopus	85 LY	15900	8000	4780	3175	2550
Canopus/Set	47 LY	8800	4400	2600	1750	1400
Ankaa/Minerva	41 LY	7650	3825	2300	1530	1200
Minerva/Mara	59 LY	11000	5500	3300	2200	1750
Mara/Stator	80 LY	15000	7500	4500	3000	2400
Stator/Hyperion	33 LY	6180	3090	1850	1220	990
Hyperion/Kephre	36 LY	6750	3400	2000	1350	1080
Kephre/Attar	85 LY	15900	7950	4750	3150	2550

Ceta offers −10% veteran discounts to ex-Federation service personnel for fares and cargo. Bulk cargo over 100t also receives −20% discounts.

MIRA LINE

The Mira Line offers regular weekly service between most points on its routes. Interconnecting starflights with Trans-Galactic are available at Castor. The Mira Line maintains large, well-armed merchant cruiseliners of 25,000t, with crews composed largely of former Federation service personnel. Colonial Low Passage and bulk cargo rates are comparable to the best offered anywhere, while High and Middle Passage accomodations are famous for their sumptuousness. The food at all levels is the incomparable haut cuisine of Mira. Average cruising speeds are around 15 LY.

STARCONNECTION	DISTANCE	FARES & CARGO RATES/TON (CR)				
		HIGH	MIDDLE	LOW	COLD	CARGO
Castor/Capella	14 LY	2650	1325	780	525	420
Capella/Talos	100 LY	18750	9375	5625	3750	3000
Talos/Menkaar	46 LY	8600	4300	2550	1725	1380
Menkaar/Mira	34 LY	6180	3090	1850	1220	990

Mira offers −20% discounts for veterans of the Federation service for both fares and cargo. Mercenaries with contracts for service in the Mira Worlds (Mira, Menkaar, Talos) receive 50% discounts in all levels of accomodation and for all military cargo.

VEGA LINE

The Vega Line offers regular flights to all points, with interconnecting starflights with Trans-Galactic at Vega, Sura, and Arcturus. The Vega Line is a subsidiary of Trans-Galactic, acquired when Vegan High-Lifters Inc. went bankrupt in 2536. Average cruising speeds are around 10 LY.

STARCONNECTION	DISTANCE	HIGH	MIDDLE	LOW	COLD	CARGO
Terra/Vega	28 LY	4680	2340	1400	930	750
Vega/Sura	48 LY	8000	4000	2400	1600	1280
Sura/Arcturus	75 LY	13120	6560	3900	2620	2000
Arcturus/Terra	36 LY	6300	3150	1880	1250	965
Vega/Markaab	122 LY	21350	10675	6400	4200	3250
Markaab/Mitra	113 LY	19750	9875	5900	3900	3000
Mitra/Vega	102 LY	17850	8925	5350	3500	2700

REGULUS FRONTIER STARLINES

The Regulus Line is an aggressive and fast-growing co-operative formed by independent colonial starservices that combined to increase their resources and service. Most vessels are small corvettes and 'tramp' starships, but the crews are generally competent and courteous. Side trips booked through the Regulus Line can be arranged at handsome discounts (−10-60% of standard rates) and a good list of picked Free Traders is available for such trips. Regulus boasts that it can get a passenger anywhere in the region at the best prices, which is true because it has excellent relations with the Regulian frontier starservices. Interconnecting starflights are available with Trans-Galactic at Denebola and Ptah. Average cruise speeds are 10-12 LY per day, but a few fast 18 LY corvettes are available at +10% cost to fares and cargo tariffs.

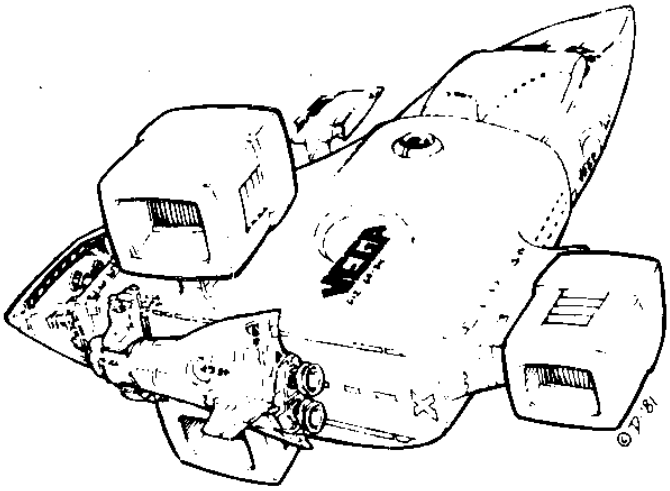
STARCONNECTION	DISTANCE	HIGH	MIDDLE	LOW	COLD	CARGO
Denebola/Regulus	48 LY	9000	4500	2700	1800	1440
Regulus/Asterion	23 LY	4300	2150	1290	850	690
Asterion/Alphard	32 LY	6000	3000	1800	1200	960
Alphard/Regulus	34 LY	6350	3175	1900	1275	1020
Regulus/Marathon	37 LY	6900	3450	2080	1380	1100
Marathon/Ra	43 LY	8060	4030	2400	1600	1290
Ra/Horus	18 LY	3350	1675	1000	675	540
Denebola/Osiris	35 LY	6560	3280	1950	1300	1050
Osiris/Dardanus	32 LY	6000	3000	1800	1200	690
Dardanus/Ptah	34 LY	6350	3175	1900	1275	1020
Ptah/Anubis	29 LY	5400	2700	1630	1085	870
Anubis/Aten	15 LY	2800	1400	840	560	450
Aten/Denebola	41 LY	7680	3840	2300	1525	1200

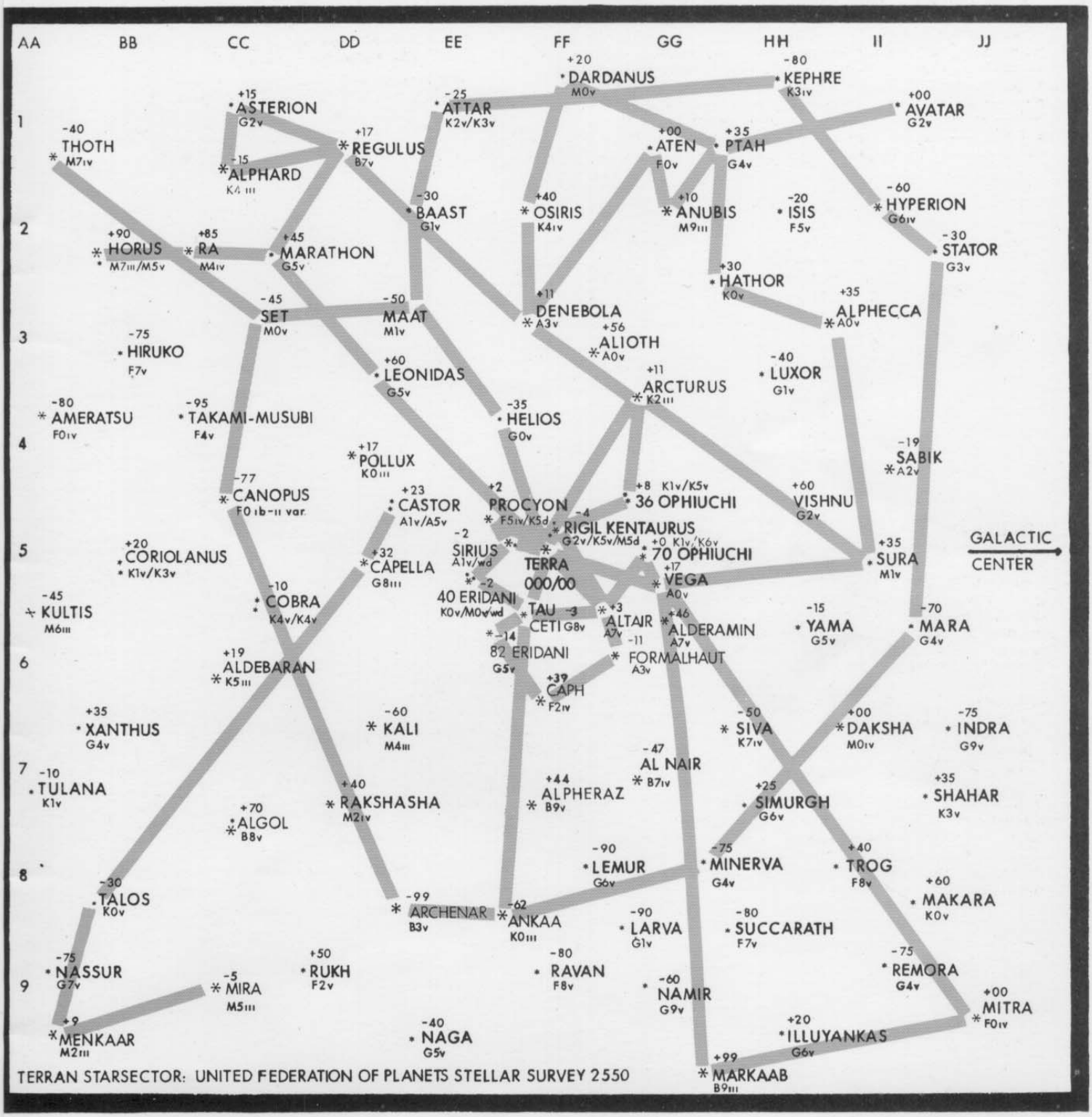
FREE TRADERS

Free Traders are operating from virtually every planet associated with the Federation. Most of these vessels are 'tramp' starships with average speeds of 6-10 LY per day, but some are trade corvettes in good condition and capable of 12-18 LY per day. Rates are based on the direct-line distance between the StarPort of embarkation and the destination, as occasional side trips and diversions will be made because of trade commitments. Rates are:

High Passage . . . . . .CR 250 per LY
Middle Passage. . . . . .CR 125 per LY
Low Passage . . . . . CR 75 per LY
ColdSleep . . . . . CR 50 per LY
Cargo . . . . . .CR 40 per LY per ton

Discounts of 2.d10% can be obtained 50% of the time. If booked in the Regulian region through Regulus Frontier Starlines, 6.d10% discounts can be arranged. Discounts are based on there being no more than one side trip. If more than one planet will be visited before reaching the passenger's destination, no discount will be given. Rarely will there be more than two planets intervening.





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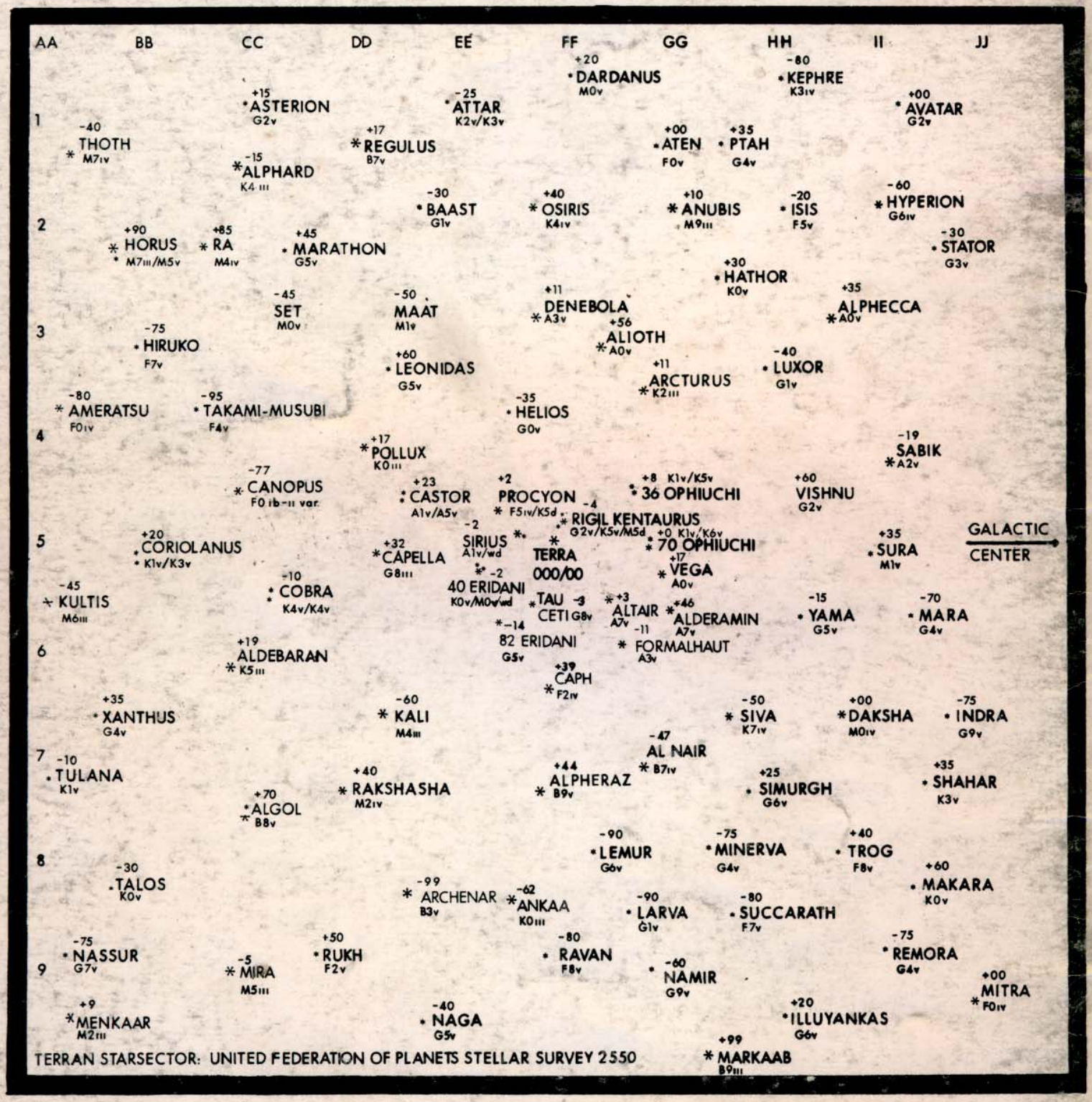
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-25 ATTAR K2v/K3v
+00 AVATAR G2v
-40 THOTH M7iv
+17 REGULUS B7v
+00 ATEN F0v
+35 PTAH G4v
-15 ALPHARD K4 iii
-30 BAAST G1v
+40 OSIRIS K4iv
+10 ANUBIS M9iii
-20 ISIS F5v
-60 HYPERION G6iv
+90 HORUS M7iii/M5v
+85 RA M4iv
+45 MARATHON G5v
-30 STATOR G3v
+30 HATHOR K0v
-45 SET M0v
-50 MAAT M1v
+11 DENEBOLA A3v
+35 ALPHECCA A0v
-75 HIRUKO F7v
+56 ALIOTH A0v
+60 LEONIDAS G5v
+11 ARCTURUS K2iii
-40 LUXOR G1v
-80 AMERATSU F0iv
-95 TAKAMI-MUSUBI F4v
-35 HELIOS G0v
+17 POLLUX K0iii
-19 SABIK A2v
-77 CANOPUS F0 ib-ii var.
+23 CASTOR A1v/A5v
+2 PROCYON F5iv/K5d
+8 K1v/K5v 36 OPHIUCHI
+60 VISHNU G2v
-4 RIGIL KENTAURUS G2v/K5v/M5d
+0 K1v/K6v 70 OPHIUCHI
+20 CORIOLANUS K1v/K3v
-2 SIRIUS A1v/wd
+32 CAPELLA G8iii
TERRA 000/00
+17 VEGA A0v
+35 SURA M1v
GALACTIC CENTER
-45 KULTIS M6iii
-10 COBRA K4v/K4v
-2 40 ERIDANI K0v/M0v/wd
TAU CETI G8v -3
+3 ALTAIR A7v
+46 ALDERAMIN A7v
-15 YAMA G5v
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-14 82 ERIDANI G5v
-11 FORMALHAUT A3v
+19 ALDEBARAN K5iii
+39 CAPH F2iv
+35 XANTHUS G4v
-60 KALI M4iii
-50 SIVA K7iv
+00 DAKSHA M0iv
-75 INDRA G9v
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-60 NAMIR G9v
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+9 MENKAAR M2iii
-40 NAGA G5v
+20 ILLUYANKAS G6v
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