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TOURING THE STARS

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TOURING THE STARS

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INTRODUCTION

We began on Terra, a lonely, blue-green speck in the vastness of the void. It has been more than a millennium since mankind ventured to the stars beyond home, and while it has been a tumultuous history—at the very least—we have discovered, explored, and conquered worlds that our ancestors could only dream about. Humanity now occupies more than two thousand worlds stretched across a vast range of interstellar space known as the Inner Sphere.

For humanity as a whole, Terra, at the heart of it all, will forever be known as "Home." But for the far greater majority of us, "home" is a very different speck amidst the infinite black. Our homes are many, varied, beautiful, and filled with rich histories—each unique to itself.

In the grand scale of interstellar history, it often becomes so easy to forget this, to see planets and solar systems as dots on an abstracted map. But, at the core of the matter, each of those dots is a place where men, women, and children live, work, love, and survive. Join us on a special tour of the Sphere, as we explore the richness of these worlds like never before!

—Professor Bertram Habeas, *Touring the Stars: One World at a Time*, Free Republic Press

Welcome to *Touring the Stars*, a campaign supplement designed to offer players the opportunity to learn about the worlds of the Inner Sphere, Periphery, and beyond.

The background information contained in the **Atlas** section gives players a world's geography, history, notable events, and other tools needed to create an unlimited number of *BattleTech* games, while the **A Time of War** section offers plot seeds and details for the planet's more notable events. These plot seeds can be used as stand-alone games, woven into an existing game or become part of a larger ongoing campaign.

The **Rules Annex** section explains planetary **Atlas** information for use in gameplay, as well as optional terrain tables, weather, and flora/fauna rules. Terrain tables can be used as a random chart to determine gameplay maps, or simply as a guide to provide ideas on the types of terrain found on the world. This section also contains a list of other rules that can be used to enhance your game experience. All players should agree whether or not to use any or all of these features before play.

Note: The last four pages of this PDF are sized for 11" x 17" paper. Please keep this in mind when printing out the document.

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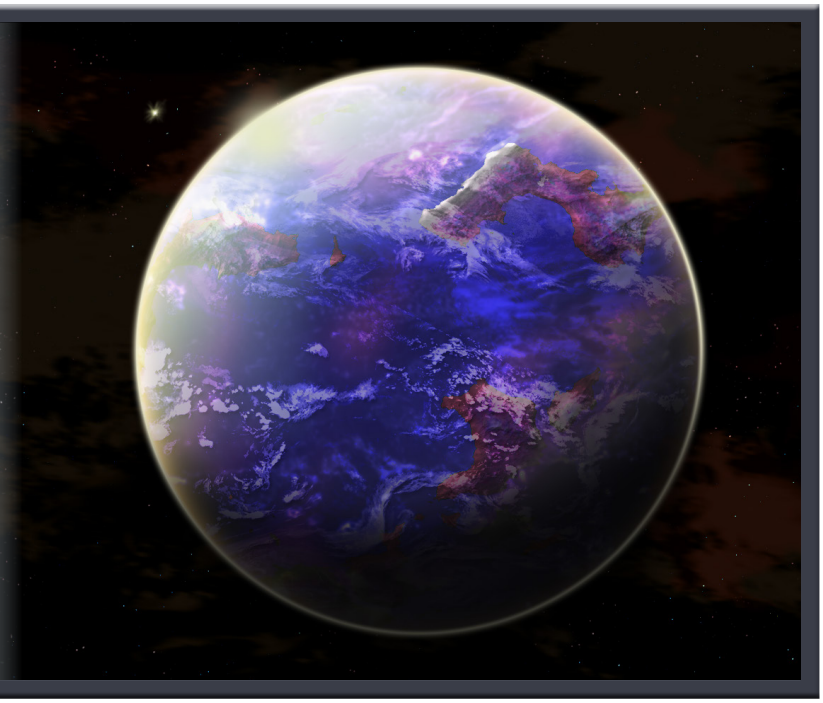
Special Thanks: A special thanks to the Kepler Space Observatory. You are a planet-finding monster giving us extra-solar planets almost as fast as the first *BattleTech* writers.

MIZAR

Star Type (Recharge Time): A2V/A2V (728 hours)
Position in System: 6 (of 6)
Time to Jump Point: 75.15 days
Number of Satellites: None
Surface Gravity: 0.92
Atm. Pressure: Standard (Breathable)
Equatorial Temp: 30°C (Hot)
Surface Water: 84 percent
Recharging Station: Nadir
HPG Class: B
Highest Native Life: Mammal
Population: 5,456,000,000
Socio-Industrial Levels: B/B/B/B/A
Landmasses (Capital City): Majestica, Paradasia, Solasia (New Venice Beach), Wunderlund, Utopian Isles



Mizar was dubbed "the miracle planet" when Western Alliance telescopes resolved it in 2065. The blue-and-white speck had water, oxygen, chlorophyll, and habitable temperatures. This habitability was miraculous because it orbited Mizar A, a close binary of twin A2V stars, and life in the presence of one A2V was improbable enough. A-class stars create ferocious solar winds that threaten to strip planetary atmospheres; of Mizar A's six planets, only Mizar retains an atmosphere, thanks to its anomalously strong magnetic field. Futhermore, the system was actually a quaternary: Mizar B, a binary of an A5V and A7V, orbited Mizar A at 350 AUs once every 2,100 years. Quaternary systems are not conducive to planet formation, let alone habitability.

A further complication is that A2V stars only have about 500 million-year lifespans, which give little time for an orbiting planet to reach habitability (Terra required four billion years). But in 400 million years, Mizar had developed an oxygen atmosphere and an advanced (and beautiful) ecosystem. This youth gave Mizar a hotter interior than Terra, despite a smaller diameter (11,100km) and larger metallic core that sped cooling. Volcanism, quakes, and tsunamis are more common than on Terra detract from the world's winning qualities. On the other hand, the torrent of ultraviolet radiation has produced a very strong ozone layer such that sunscreen is rarely required.

That sunlight is sometimes unusual. Mizar A's stars, located 7 AU from the planet, appear only a quarter of the diameter of Sol as seen from Terra and are always close to each other in Mizar's skies. Sunsets are more yellow than Terra's, but to human eyes the suns look as white as any other sun. Distant Mizar B appears like a pair of close, eye-searing pinpricks. For about half of Mizar's 3,029-day year, the four stars are in the same half of the sky, allowing Mizar to experience some night in its 28-hour rotation. When Mizar moves between the two binaries, Mizarians still refer to the area only lit by Mizar B as "night" because Mizar B only delivers about half a Watt per square meter versus approximately 1,000 Watts from Mizar A. Mizar B's illumination is similar to moderate indoor artificial lighting, allowing humans to use color vision but banishing any other stars from the dark blue "night" sky. The gentle, blueish lighting is beloved by landscape artists.

Regarding artistry and landscapes, Mizar was not merely inhabitable, it was beautiful. Among the thousands of worlds settled by humanity, one of them had to be the most beautiful, and Mizar is arguably that world. The active tectonics and young geography created breathtaking mountain ranges. The convoluted coastlines not only produced spectacular, sandy beaches, but also guaranteed good precipitation to most of the continental interiors to support all manner of forests and grasslands. The vibrant reds, purples, and blues of Mizarian deciduous forests in the planet's long autumn drew even more interstellar tourists than its beaches. Even terrain considered ugly on most worlds—swamps, deserts, volcanoes—took an attractive form on Mizar. Some early xenobiologists joked that Mizar sent its graceful species through gyms and groomers before releasing them into nature. The planet's analog to corals produce mounds of transparent, crystalline polymers that include siliceous and organic contaminants: the famous Mizarian "plastic crystals," which look like pearls and gemstones but carve as easily as soapstone. The world's geothermal activity supports a multitude of hot spring resorts.

Mizar's climate is warm, but not extreme. The continents are mainly cluster in temperate latitudes where they enjoy pleasant warmth for most of the year. The world's 25-degree tilt and long years produce cool, rainy winters, but ice and snow are rare in most lands. A similar cool climate is present year-round in the polar islands, which proved popular for cold-seekers. Lacking moons and having distant primaries, tides on Mizar are negligible.

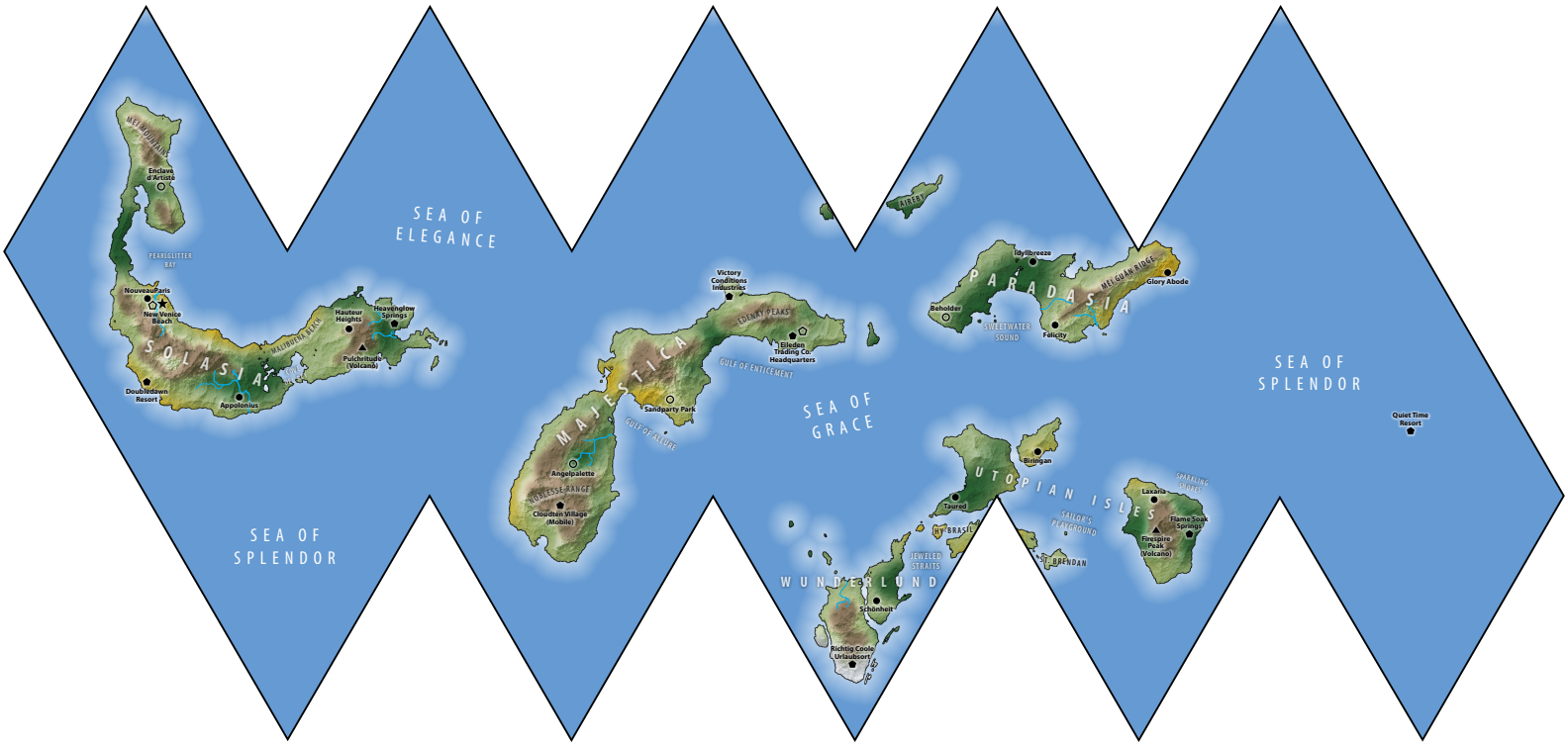
After explorers' initial reports were released in 2120, Terrans clamored to settle the world, but the multiple jumps required to reach Mizar and the very long transit to the planet strained the capabilities of early twenty-second century JumpShips. The first formal colony was established in 2153, four decades after the first permanent scientific base. (A number of explorers settled with their families beginning in 2127, leading to millennial celebrations in 3127.)

The first colony was a joint effort of the old Terran nations of China and the United States. Both nations strove to develop the world at the behest of their wealthiest citizens, who were attracted to Mizar for its natural beauty. The long round-trip from Terra, including 150 days of round-trip in-system, made settlement questionable. Settlers attempted to bypass this latter obstacle by jumping to the Mizar L1 jump point, but early JumpShip navigational systems struggled to pinpoint the L1 jump point of a planet and its binary star (Mizar A's components are in a twenty-day elliptical orbit). After the TASS *W. Buffett* fatally misjumped in 2167, the Alliance banned further civilian use of the system's non-standard points. Eventually, the original colony sold entire continents to avoid bankruptcy, which led to settlement by several European groups in the 2170s.

Colonists from the Terran nation of France established NouveauParis across the "Alay River" (a corruption of the "New L.A. River") from the original colony's New Venice Beach. The twin cities have long been administered under a single metropolitan government, seated in NouveauParis, but the planetary government resides in New Venice Beach. Off-world writers are often uncertain which name to use for the planetary capital, though Mizarians universally use New Venice Beach because the parliament building is there.

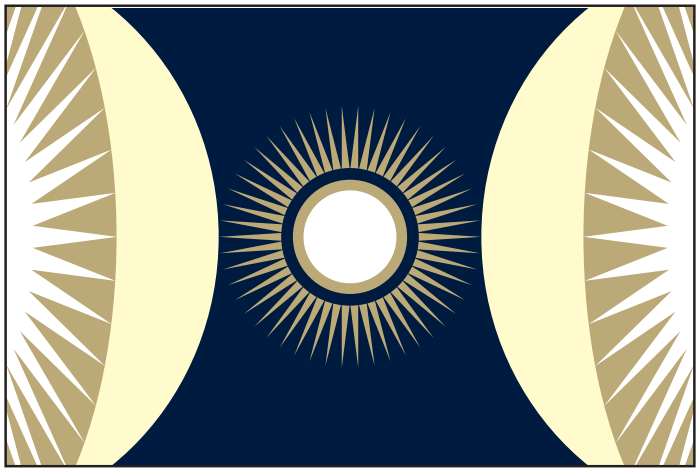
The system's long transit time slowed development, as Mizar could not competitively export most goods and imports were expensive. The European colonists of the late twenty-second century brought a multitude of items needed for independence, such as light industrial equipment that could be maintained without Terran support. After the Demarcation Declaration, Mizar became an integral part of the local interstellar economy, and its handful of exports helped many neighboring worlds recover from Terra's brutal weaning. This also led the European-settled continents of Mizar (Wunderland and part of Solasia) to ally with the Federation of Skye at its foundation in 2299. Despite close ties with the European colony, the Sino-American continents (Majestica, Paradasia, and the balance of Solasia) preferred independence and diplomatic ties with Terra.

This divided governance meant Mizar quickly fell to the Hegemony's Third Campaign of Persuasion in 2334. Konrad McKenna worked with the Sino-American continents to land HAF troops at welcoming spaceports, then moved across the planet. Mizar's conquest set Skye and the Hegemony on a collision course that would end unexpectedly at Syrma in 2338.



Following the Syrma Ambush and the Hegemony's retreat, the Federation of Skye liberated the European continents by making use of the Hegemony's own strategy of sneaking troops onto the planet with collaborators' aid. Skye forces arranged an armistice with Hegemony field commanders that left the Sino-American continents in Hegemony hands. In 2341, the Hegemony grudgingly ratified the subsequent joint rule treaty both because the newborn Lyran Commonwealth, founded in 2341, was an unassessed threat, and because the treaty specified that the Hegemony received control over two thirds of Mizar's land area and nearly ninety percent of its oceans. The European continents were the smaller part of the planet, even if they had held the larger share of the population.

Because the Hegemony held a dominating share of Mizar's surface area, the planet was often marked as a Terran Hegemony world on pre-Succession Wars maps. However, it was actually the first jointly administered world of the Hegemony, though it hardly set a pattern. Beginning in the late twenty-fourth century, the Hegemony offered terraforming services to the Great Houses, improving borderline worlds in exchange for some mineral rights and a say in planetary governance. This joint ownership style eventually encompassed over one hundred systems, but differed from Mizar.



The Age of War ignored Mizar. The world was a major trade port because of the joint administration and trading loopholes, such as the lack of import duties on intercontinental trade. Lyran and Hegemony merchants would simply move freight across the planet to avoid duties usually incurred during interstellar trade. The discovery of the Brandt Recoil Effect greatly increased the safety of jump travel, even at "pirate" points, opening Mizar's L1 point approximately 0.2 AU from the planet. This led to a twenty-fifth century trade surge, and the large trading firms using Mizar started the modern infatuation with the world's beauty. Many moved headquarters to Mizar's beauty spots and competed to produce the most stunning architecture. Lower level company executives counted the world a plum assignment and eagerly settled there with their families.

These endorsements and the formation of the Star League created a boom in colonization. Most of the new settlers were from the Hegemony or Commonwealth, but other wealthy colonists came from around the Inner Sphere. Mizar's tourist industry thrived during the Star League to a degree not seen before or since. By the fall of the Star League, the world's population exceeded four billion.

The Amaris Coup caused little damage to Mizar, which had been entirely stripped of its SLDF garrison on the theory that the small Lyran garrison would help protect it. Amaris seized the planet along with seventeen other jointly-ruled worlds. Seeking to court the favor of the House Lords, the SLDF liberated shared worlds early in Operation CHIEFTAN, including Mizar in 2772. Essentially undamaged, Mizar contributed dutifully to the SLDF war effort, though it was no military-industrial titan. Its only military factory, which produced SL-25 *Samurai*s, was destroyed in a 2774 raid.

When the Civil War ended, Mizar's government launched an advertising campaign to restart its interstellar tourist industry. By 2781 the campaign was a ridiculed failure which convinced Mizarians the Hegemony was not recovering. The half-Lyran world joined the Lyran Commonwealth in 2783, even before the SLDF Exodus.

The Succession Wars also handled Mizar lightly. Its tourism industry and scenery were not primary targets in the same way as BattleMech factories. Nonetheless, the collapse of interstellar trade and travel following the early Succession Wars gutted Mizar's economy and forced it to develop industrial independence of the sort it had lacked for four centuries. The countless millions of tourists Mizar welcomed annually under the Star League dwindled to a trickle of hyper-wealthy individuals who could still travel to the world. Since the 2760s, the majority of Mizar's tourism trade has come from intercontinental, rather than interstellar, visitors.

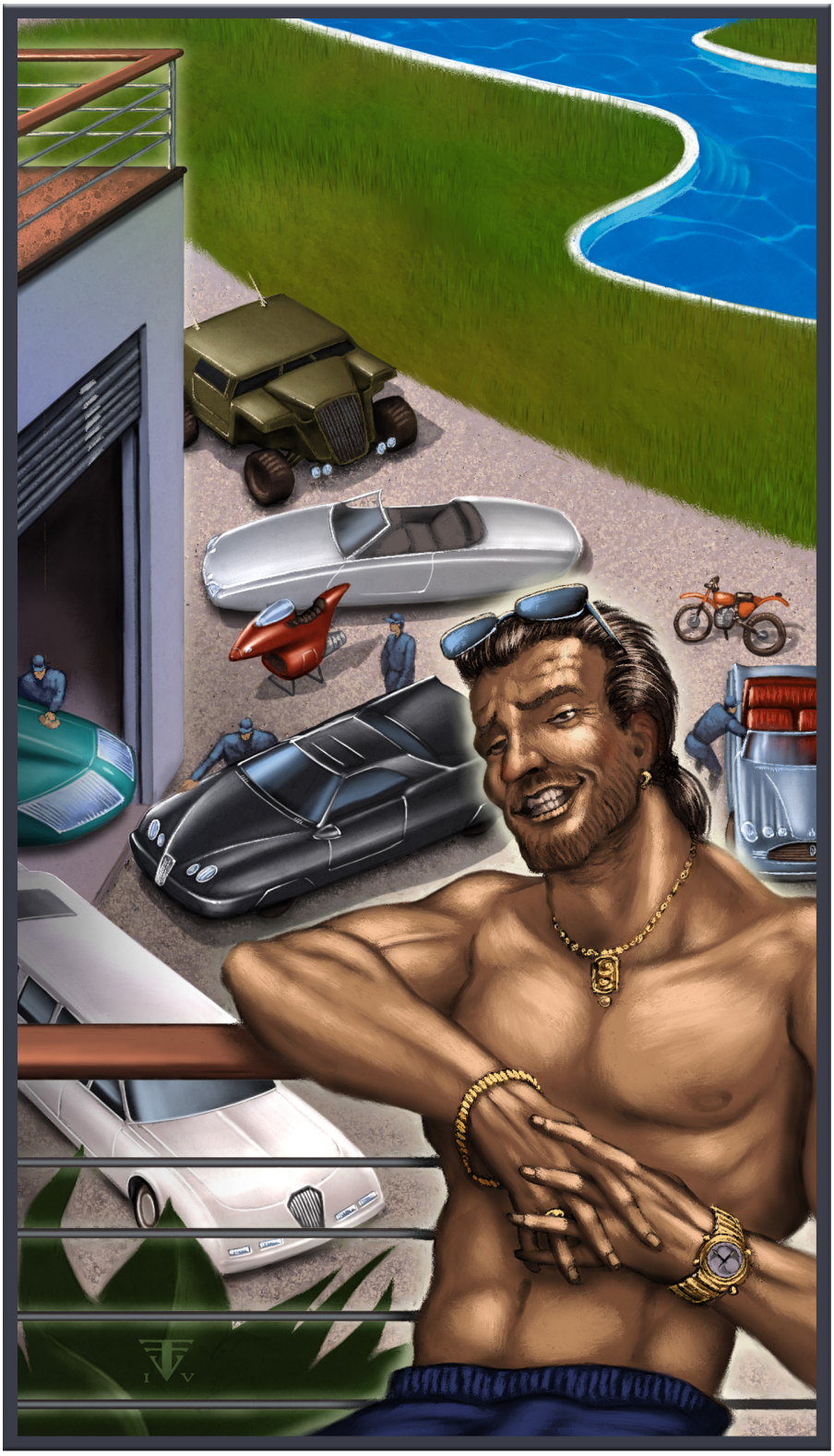
Centuries of near-peace on Mizar ended with the conquest of the world by the Free Worlds League in 3067. It was liberated briefly by the Lyran Alliance in 3069, and then lost again to the Word of Blake Protectorate in 3072. Blakists acted with unusual callousness, killing people in the streets for "wanton use of technology" such as robotic bartenders. Stone's Coalition liberated Mizar but found it reluctant to join the nascent Republic of the Sphere – unlike many ex-Hegemony worlds, Mizar had not been roughly handled by the Great Houses over the centuries. A narrow vote and Tharkad's approval turned Mizar over to the Republic in 3080. Opinion of the Republic has since soured and most Mizarians give Republic representatives a "cold shoulder treatment," often shutting them out of better clubs and parties.

As might be expected on a world where residents cherish the natural beauty of their planet, zoning laws strictly constrain urban growth and large regions are protected parkland. Accordingly, cities are highly built up and rural estates are fantastically expensive. Aside from a few failed artistic experiments, the soaring skyscrapers that house the population and their businesses are architectural masterpieces covering the gamut of architectural styles used in human history. A common feature of residential towers are balconies and large window areas for every residence. The active

nature of Mizar means those buildings require substantial quake and tsunami hardening. Visitors may not realize it, but some of those attractive towers hold the numerous factories and workshops that give Mizarians their current high standard of living.

Overland transport favors train lines, which have a smaller footprint than roads and integrate with the high-capacity metropolitan rail networks. Mizar kept its rail grid and cities fusion-powered throughout its history to minimize pollution. Fusion-powered jets provide intercontinental passenger transport, while fusion freighters do the same for cargo. Mizar's roads are usually populated by fuel cell or battery-powered vehicles because the young planet has a dearth of fossil fuels. Those roads are designed to allow universal use of double stacked freight containers; however, freight transportation is primarily conducted by rail. Instead, this highway architecture has led to a proliferation of double decker recreational vehicles, some of the largest, most luxurious and ludicrous in the Inner Sphere. Mizar is also one of the few worlds with a residential mobile aerial structure, a small aerial town that slowly tours the scenic interiors of the continents. The large, warm oceans have longer unbroken stretches than Terra, such as in the southern trade wind latitudes. These are a warmer version of Terra's "roaring forties" and "furious fifties," giving consistently strong winds that lead some merchants to use sails instead of fusion. And, of course, Mizarians love recreational sailboats.

Mizar retains a reputation for being a "party planet" occupied by vapid, fashion-obsessed people, but the Succession Wars drove the world to look after itself. The current culture favors relaxing and self-indulgence *after* completing a day's work; the populace scoffs at those who let their duties suffer in favor of fire lizards or surfing. The excellent education system supports an advanced industrial base, which creates a good standard of living. Mizar produces plenty of food, and the young world is rich in minerals. The healthcare system is excellent and its gerontology clinics rival Terra's, giving an average lifespan of 150 years.



A TIME OF WAR ADVENTURE SEEDS

THE BAR TAB

Recommended Group Size: 2-4 player characters

Recommended Group Type: Military, Security, Covert Ops

Recommended Skill Levels: Green-Elite (Key Skill levels of 2-8)

Though a world better known for producing fearsome social climbers rather than fearsome warriors, Mizar sometimes surprises the rest of the Inner Sphere. Lord Duc Savallo, Earl of New Lundun on Tamarind, was one such surprised individual. Lord Savallo took a break from savage First Succession War battles along the League-Confederation border to vacation on Mizar. He arrived with the expectation of mingling with the familiar Lyran nobility, perhaps participating in some 'Mech Soccer (quite the craze in 2807) with his AWS-8Q *Awesome*, and encountering no issues with customs that his wealth and family name could not resolve.

Instead, the Mizarian government was implacable in the face of the Earl's bribes, favors, pressure, and threats. It remained (and still is) the model of a Terran Hegemony government: a professional civil service with a long-serving, professional legislature and executive. His entire traveling party required medical screening and some expensive vaccinations against bioweapons then making the rounds in the Inner Sphere, as if they were diseased commoners or some such. The screening revealed an embarrassing "private condition" that was shared between three female attendants, the Earl's husband, and (patient zero) a handsome manservant. Half the party did not have passports and were banned from leaving the spaceport until visas were issued. The Mizarian militia impounded the unauthorized foreign assault 'Mech. Earl Savallo ran up a fantastic bar tab and catering bill entertaining his party in the spaceport hotel ("Three-star, feh!") while waiting for the visas. When the caterers proved unsympathetic to Savallo's truthful explanation about delinquent payments (his Andurien bank had just been nuked) and he had an awkward public "emotional destabilization" brought on by overuse of battle drugs that did nearly 100,000 Kroner of damage to hotel property, Mizarian authorities had the gall to arrest him.

Complications: A few obstacles for players to tackle.

A Can of Whoop Ass: In the heady days before the Succession Wars gutted militaries and their factories, nobles such as Earl Savallo could muster house guards described in terms like, "a company of AWS-8Q *Awesome*s with their own *Union*."

A Bejeweled Tin of Buttocks Thrashing: Mizar also surprises visitors with its large and capable militia. Often taken for strutting martinets infatuated with their own gorgeous dress uniforms, the Mizarian militia is actually quite competent – unlike the LCAF garrison, the militia has strictly merit-based promotions and in 2807 still had ex-SLDF equipment and personnel. The militia's heavy aerospace detachment keeps the L1 pirate point under close watch. On the other hand, those regiments could not protect the entire world, let alone non-strategic targets like Fourty-Seventh Bank of Mizar, which held the debt of certain foreign nobles.

Tips: For invasion campaigns, *Strategic Operations*' hyperspace jump rules (see p. 87, *SO*) and advanced sensor rules (see p. 117, *SO*) may be helpful, while the high-speed closing engagements (see p. 74, *SO*) may resolve the burn toward Mizar quite quickly.

RESPECT THE TOASTER, WORSHIP THE TOASTER

Recommended Group Size: 2 to 8 player characters

Recommended Group Type: Military, Guerrillas, Covert Ops

Recommended Skill Levels: Regular-Elite (Key Skill levels of 4-8)

Jerome Blake sbore witness as the Star League fell apart and the Great Houses began to destroy each other with the greatest weapons ever invented by man. In his journal, he speculated about the inappropriate use of science for war. From this, Blake concluded humanity must better respect science and technology. Upon his death, Blake's apprentice Conrad Toyama locked himself in a room with Blake's journal and emerged with a "slightly clarified" version. It is an exaggeration to say that Toyama's editorial work mandated toasters be worshipped, but his version of Blake's words demanded a variety of rituals that made adherents stop and give praise to the technology that made interstellar civilization possible.

However, all religions have worshippers who take the inspirational bits entirely out of context and choose to browbeat the non-believers. In the case of the particular faction of Word of Blake occupiers, those are the adherents to object not just to military technologies, but some civilian ones as well. Among those that some extremists targeted were artificial intelligences (Mizarians did like a chatty, adept robotic bartender) and genetic engineering (Mizarians did like a long, beautiful life, and those Terran Belters had some interesting ideas for Mizar's gerontology clinics).

Mizarians felt it was rather rude for the Blakist militia, which occupied the world in the 3070s, to use their blazers so wantonly on bystanders near a source of outrage. Perhaps something should be done about that. Something worse even than withholding tickets to the Studio 69 New Year's Ball.

Complications: A few obstacles for players to tackle.

Incompatible Systems: Mizar is one of the few worlds to escape severe damage in the Succession Wars, so its computer network is a 950-year old pile of archaic protocols and high-speed hardware vastly in advance of what ComStar tricked the Inner Sphere into rebuilding with. This means there are no back doors for the small Protectorate militia to easily monitor the rallies and planning of 5.5 billion Mizarians. What happened would be a complete surprise.

Take One For the Team: Breath of Blake is a remodeled bar and dance club on the glittering plastic crystal beaches near New Venice Beach. As the name suggests, it has made a point of catering to Protectorate militia. The owner saw his sister and mother killed by a Blakist who was outraged that a sports bar was showing Solaris VII 'Mech duels. The owner has been good friends with the Mizarian underground, but only allows ardent Blakists in the club.

Tips: This is an opportunity to run an ATOW campaign in the midst of the Good Life and Beautiful People, who can be just as vicious as any other human when threatened.

The following section is designed to assist both players and gamemasters in using this series to create games and/or campaigns based on the world described herein. The following rules use the core game rules found in *Total Warfare* (*TW*), *Tactical Operations* (*TO*), and *A Time of War* (*AToW*) but additional references may be made to *Strategic Operations* (*SO*) and other rulebooks.

Players and gamemasters alike should realize that these rules are substantially less rigid than core rules. Players creating tracks and scenarios using the material in this annex are encouraged to accept, modify, or even completely ignore these guidelines if they prove too cumbersome.

USING PLANETARY DATA

The world featured in this product was presented with a block of basic planetary data. This data provides key details that players can use to further tailor their game play, reflecting the unique features of the world. The following rules identify the core rules that apply, based on the indicated world data.

Across the Ages: It should also be noted that many of the worlds presented in this series will have data that actually changes greatly over time—as in the case of Lone Star, which radically changes between 2822, 2825, and beyond. Players and gamemasters should thus account for the time period their games are set in when using worlds that have such variable data values.

STAR TYPE, POSITION IN SYSTEM, TIME TO JUMP POINT

These lines are most pertinent to the advanced aerospace aspects of gameplay defined in *Strategic Operations*, and will generally have no impact on games that focus entirely on ground combat.

Star Type identifies the color, size, and stability of the world's primary star, as well as how long an arriving JumpShip requires to charge its K-F drive while in system (using only its jump sail). Particularly large and/or unstable stars can be prone to odd lighting effects that can affect combat, such as glares and solar flares. Rules for Glare and Solar Flare effects may be found in *Tactical Operations* (see p. 58, *TO*).

Position in System indicates how many orbital positions away from the star the world orbits; an "orbital position" may be held by other planets or asteroid belts.

The *Time to Jump Point* indicates how many days' worth of travel DropShips accelerating (at 1 G, the same acceleration produced by gravity on Terra) would take to travel from the system's standard zenith or nadir jump points to the world. This transit time includes a mid-point turnover and 1-G deceleration rate as well, which are standard transit rates to and from most worlds. Longer distances between the world and its local jump point mean longer transit times for incoming vessels and thus more time for local defenders to arrange defenses once they realize there are inbound attackers.

NUMBER OF SATELLITES

This line indicates how many natural satellites (moons) the world has (and their names, if applicable). Many orbital facilities may be found in the LaGrange Points (regions where the gravitational forces between the planet and its moon or moons cancel each other out), and some of these same points (specifically, places near the L-1 points) are occasionally used as "pirate points" by daring raiders who wish to radically cut down transit times and local defense preparations.

In night combat situations, worlds with one or more moons or rings may produce lighting effects caused by solar reflections off the lunar surfaces (depending, of course, on lunar phases), while worlds without any moons at all may present equally distracting effects. To reflect these possible effects as applicable, see the Full Moon Night, Moonless Night, or Pitch Black rules, on p. 58 of *Tactical Operations*.

SURFACE GRAVITY

Surface Gravity has a distinct effect on the performance of virtually all combat units in game play. Values higher than 1.00 reflect worlds where units are significantly heavier than they are under normal Terran gravity, while values lower than 1.00 reflect worlds where units are significantly lighter. The full effects of gravity on combat may be found on p. 55 of *Tactical Operations*.

ATMOSPHERIC PRESSURE

This detail describes the relative density and breathability of the local atmosphere, and can have a profound impact on game play if the atmosphere is anything but "Standard (Breathable)". Thinner or Thicker atmospheres can affect the use of several unit types in gameplay and may even have an impact on weather conditions. Likewise, atmospheres classified as Tainted or Toxic can affect how various combat units' function and suffer damage in game play. For rules covering Atmospheric Pressure, see pp. 54-55 of *Tactical Operations* for pressure variations, and p. 56 of *Tactical Operations* for Tainted and Toxic Atmosphere effects.

EQUATORIAL TEMPERATURE AND SURFACE WATER

A world's *Equatorial Temperature* helps define whether the world can be broadly classified as hot, warm, or cold by indicating the temperate (in degrees Celsius) it averages at the equator—typically the warmest region on the planet's surface. Temperatures at the north and south pole of most worlds may average as much as 30 degrees colder than at the world's equator, but it is always important to know that local conditions such as weather and terrain can vary these averages somewhat. Nevertheless, the equatorial temperature helps players gauge whether much of the world will likely be arctic, tropical, desert, and so forth. If gameplay falls in regions where temperatures are extreme (below –30 Celsius or above 50 Celsius), Extreme Temperature rules (see p. 62, *TO*), will apply.

Surface Water reflects the percentage of the world's surface that is covered in water, and essentially defines whether the world might be covered in vast, lifeless wastelands, lush forests, or miniscule, rocky islands. Worlds with low Surface Water values (50 percent or less) will rarely see much rainfall or snowfall weather effects, and water or woods features on terrain maps may instead be considered sinkholes, craters, and rough terrain instead to reflect the lack of significant water sources and vegetation. Worlds with higher Surface Water values, meanwhile, will much more likely have active, precipitation-heavy weather patterns, and support more water and woods terrain features.

RECHARGING STATION, HPG CLASS, NATIVE LIFE, AND POPULATIONS

These details describe other noteworthy features of a target system that could affect campaigns to greater or lesser degree.

Recharging Stations describes whether a system has any space station capable of recharging a JumpShip's KF drive (and, if so, at which of the two standard Jump Points they are located). Recharging stations are often small and fairly unarmed, but also act as spaceborne hubs of trade and communication to the local world. Raiders often avoid these stations by taking non-standard jump points, so their arrival cannot be blown to the locals, but more significant invasions often begin by seizing the local recharge stations instead, to secure effective strategic control over the jump point.

HPG Class defines the presence of a local hyperpulse generator on the planet, indicating its ability to transmit signals to other systems nearby. Such stations are always located on the planetary surface, and are largely considered inviolate by all but the most serious attack forces. (Attacking an HPG is still considered a crime against humanity by most civilized realms, even in the post-Clan Invasion eras.) Class A stations reflect major interstellar communications hubs, while Class B stations usually send transmissions in massive bundles less frequently. Although any HPG can send an emergency signal to a nearby system within hours of an attacking force's discovery, many raiders target worlds with Class B stations (or no stations at all), in the hopes that their arrival will raise the alarm among nearby systems more slowly. Assault forces, meanwhile, may target Class A worlds in an effect to secure a realm's communications hub and disrupt responses to a border-wide campaign.

Native Life describes (in very basic terms) the highest level of native-born life forms the world has. More life-barren worlds in the Inner Sphere may be host only to microbes or plants, while more evolved planets often host their own species of animal life up to and including mammals. Though this rarely impacts a planetary campaign, it cannot be ignored that many local creatures can pose a threat—or a boon—to raiders and invaders in some circumstances, ranging from being a source for local food in the event of supply shortage, or a hazard to establishing secure perimeters while operating outside of vehicular protection. This detail, however, does not cover introduced species the human population may have imported to the world, so while a target world may be host only to native-born trees, horses originally raised on Terra may yet make an appearance.

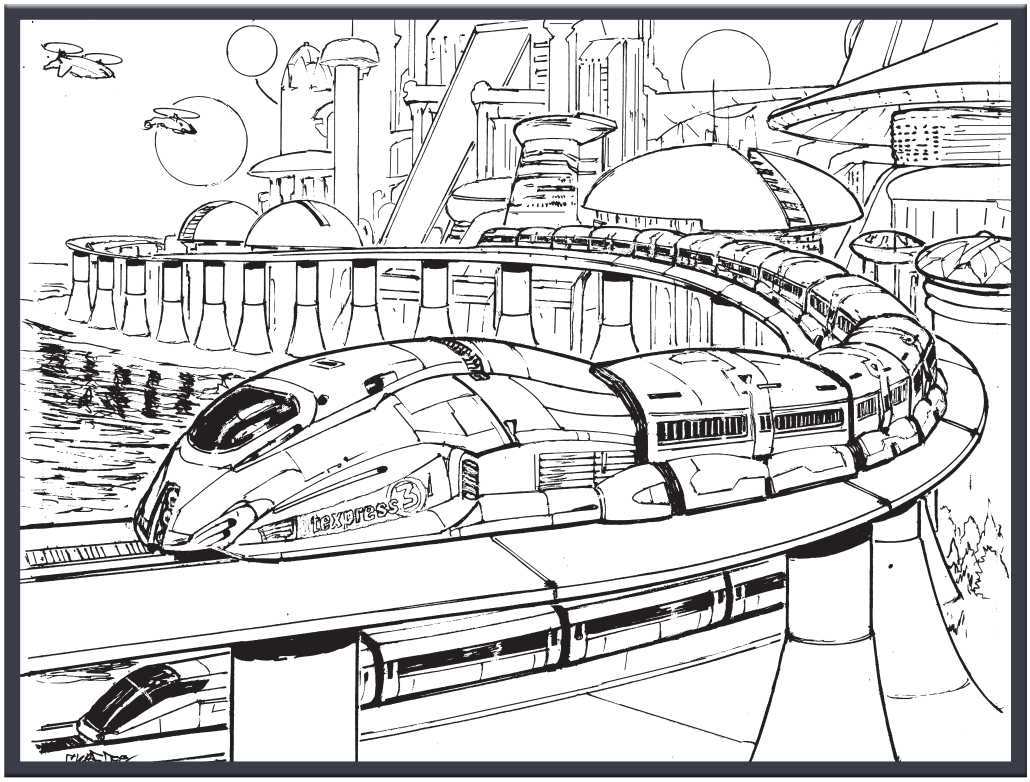
Population defines the number of humans estimated to be living on world. Worlds with particularly high populations—those numbering in the billions—are often highly developed, with many major cities. Sparsely populated worlds—with populations in the millions or less—are less likely to have major cities than they are small towns or even tiny outposts and domed arcologies. As a more densely populated world often raises the threat of local armed resistance or merely more eyes to spot incoming invaders and more voices to raise an alarm, raiders tend to target less populace worlds, while invaders often attempt to secure the greater manpower and infrastructure reflected in high population worlds.

SOCIO-INDUSTRIAL LEVELS

The world's Socio-Industrial Level is a five-letter code used to broadly define the world's level of wealth and development using a series of classic A-F letter grades. The more "A"s and "B"s that appear in this code versus "D"s and "F"s will generally denote a world that is more self-sufficient, technological sophisticated, and resource wealthy than the average. As many of these factors can be used to enhance role-playing aspects of game play, an in-depth explanation of this code structure may be found on pp. 366-373 of *A Time of War*.

LANDMASSES AND CAPITAL CITIES

The major landmasses (continents, regions, and/or island chains) identified on each world are then listed, with the planetary capital city listed (in parentheses) beside the name of the landmass where it is located. Traveling between landmasses often requires the use of high-speed rails (overland), aerospace transit (via DropShips, airships, and other aerospace craft), or seagoing vessels.



The following additional special rules are intended to provide further flavor to games set on the world featured in this product. For the most part, these rules may be considered advanced and optional, as they primarily reflect conditions and/or features unique to this one planet or planetary system.

CLOSE BINARIES AND JUMP TRAVEL

The Hyperspace Travel rules (pp. 86-89, *SO*) assume a single star is present. For systems with multiple stars where the additional stars are located at more than four times the proximity limit of the heavier star, the *Strategic Operations* rules are sufficient. For example, the two stars of Mizar B have no effective influence on jumps to and from Mizar A's zenith and nadir points, nor does Mizar B influence recharge times at Mizar A.

On the other hand stars located within less than a quarter of the proximity limit of the heavier star) may be treated as a single star for game play purposes. They will have a single, basically spherical proximity limit as addressed by *Strategic Operations*.

The radius of a proximity limit is solely determined by the mass of the close stars. Add their mass together and compare them to the mass of individual stars on the Proximity Point Distance Table (p. 86, *SO*). Players interested in close multiple star systems should consult the Primary Generation Table and Primary Solar Stats Table (pp. 99-101, *Campaign Operations*).

For example, the two stars of Mizar A are both A2V stars. A quick internet search reveals the two stars of Mizar A are each 2.5 solar masses, totaling 5 solar masses. (Had this been a more fictional system than Mizar, common astronomical reference websites list the mass of stars by stellar type. A2V stars, for example, average 2.19 solar masses.) A single star of 5 solar masses is about a B6V star, which has a transit time of 75.15 days. For the next step, it is useful to note the radius of the proximity limit (103.29 billion kilometers for the case of a B6V).

Similarly, recharge times are determined by adding up the luminosities of the multiple stars and comparing to a single main sequence star of similar luminosity. However, this luminosity-equivalent single star will be dimmer than the proximity limit-equivalent star, and thus recharge times will be longer. (Stellar luminosity increases much faster than mass in single stars.) As noted in *Strategic Operations*, p. 125, the recharge time will be multiplied by the inverse square of distance. The steps are:

1. Note the proximity limit radius of the single proximity limit-equivalent star
2. Add up the luminosities of the multiple, close stars
3. Find a main sequence star of equivalent luminosity, and note its recharge time and proximity limit
4. Divide the proximity limit in step 1 by the proximity limit in step 3, and square the result
5. Multiple the result of step 4 by the recharge time in step 3

For example:

1. *Mizar A's two stars have a proximity limit of 103.29 billion kilometers;*
1. *And have a combined luminosity 63 times that of Terra's Sol*
1. *Stars with 63 times Sol's luminosity are similar to A0V stars, which have a proximity limit of 48.56 billion kilometers and 161-hour recharge time*
1. *103.29 ÷ 48.56 = 2.127. (2.127)^2 = 4.52*
1. *4.52 x 161 hours = 727.72 hours, rounded up 728 hours*

Which means Mizar A, despite being 63 times brighter than Sol, actually has the longest recharge time in the Inner Sphere. This is because a single star of 5 solar masses is much brighter than two stars of a total of 5 solar masses.

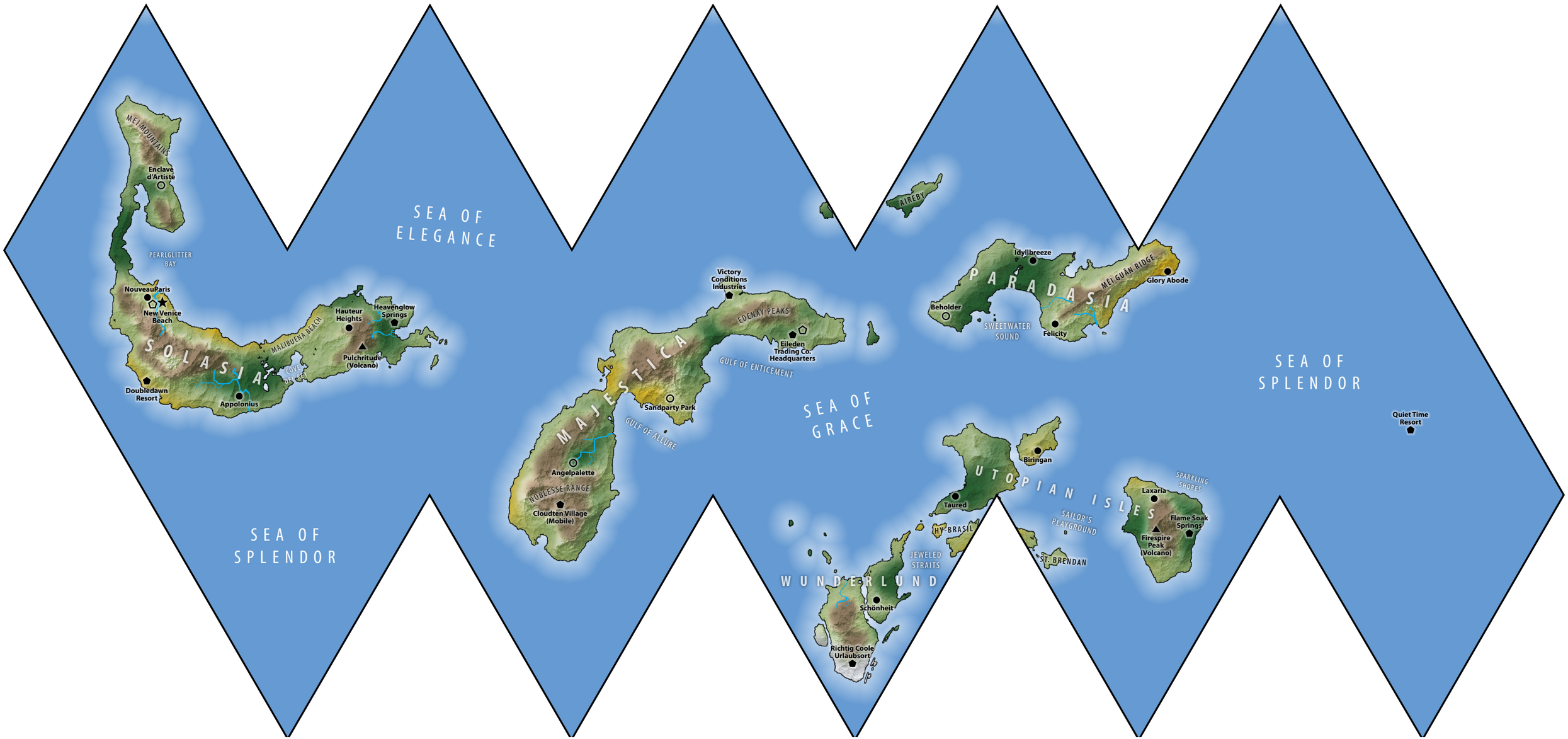
In some close binary systems, the recharge time may be reduced by maneuvering closer to the stars with a JumpShip's station-keeping engine. *Strategic Operations* (pp. 258-259) provides guidance for such in-system maneuvering. However, for stars of F6V-class or brighter, the benefits are limited or not worth the wasted time.

For example, the proximity limits of Mizar A are nearly 700AU from the twin stars, and it takes weeks to get closer (e.g., 75.15 days to reach Mizar, which is 7AU from Mizar A). It is faster to recharge by solar sail at the jump point than to leave the points; faster yet to use Mizar's recharge station or fusion engine recharging (p. 87, SO*); and fastest to use Mizar's L1 jump point some 0.2AU from the planet.*

MIZAR TERRAIN

The inhabited areas of Mizar have terrain as diverse as any found on Terra. The general mapsheet table (p. 263, *TW*) is a reasonable representation ofmost of the world's terrain.

MIZAR


SEA OF ELEGANCE
MEI MOUNTAINS
Enclave d'Artiste
PEARLGLITTER BAY
NouveauParis
New Venice Beach
Hauteur Heights
Heavenglow Springs
MALIBUENA BEACH
SOLASIA
COVE
Pulchritude (Volcano)
Doubledawn Resort
Appolonius
Victory Conditions Industries
EDENAY PEAKS
Eileden Trading Co. Headquarters
GULF OF ENTICEMENT
MAJESTICA
Sandparty Park
GULF OF ALLURE
Angelpalette
NOBLESSE RANGE
Cloudten Village (Mobile)
SEA OF GRACE
AIREBY
PARADASIA
Idyllbreeze
MEI GUAN RIDGE
Glory Abode
Beholder
SWEETWATER SOUND
Felicity
SEA OF SPLENDOR
Quiet Time Resort
Biringan
UTOPIAN ISLES
SPARKLING SHORES
Laxaria
Flame Soak Springs
Firespire Peak (Volcano)
SAILOR'S PLAYGROUND
Taured
HY-BRASIL
ST. BRENDAN
JEWELED STRAITS
WUNDERLUND
Schönheit
Richtig Coole Urlaubsort
SEA OF SPLENDOR

1

2

3

A01 B01 B06 C01 C03 C06 D01 D03 D04 D06 E01 E02 E04 E05 E06 E07 F01 F02 F03 F04 F05 F06 F07 G01 G02 G04 G05 G06 G07 H02 H03 H04 H05 H06 H07 I02 I03 I04 I05 I06 I07 J03 J04 J05 J06 J07 K03 K04 K05 K06 K07 L03 L05 L06 L07 L08 M03 M05 M06 M08 N03 N06 N08 O03 O08 P01

MEI MOUNTAINS

Enclave d'Artiste

PEARLGLITTER BAY

NouveauParis

New Venice Beach

SOLASIA

MALIBUENA BEACH

COVE DEL REY

Hauteur Heights

Heavenglo Springs

Pulchritude (Volcano)

Doubledawn Resort

Appolonius

SEA OF SPLENDOR

N

KEY

- PLAINS
- WATER
- FOREST
- DESERT
- MOUNTAINS
- ARCTIC
- ITEM OF INTEREST
- DROPPORT
- MOUNTAIN PEAK
- RUINS
- CITY — EPICENTER OF METROPOLITAN COMPLEX; POPULATION OF SURROUNDING AREA > 50,000,000
- CITY — POPULATION OF SURROUNDING AREA < 1,000,000

5

7

4

6

Victory Conditions Industries

EDENAY PEAKS

Eileden Trading Co. Headquarters

GULF OF ENTICEMENT

MAJESTICA

Sandparty Park

SEA OF GRACE

GULF OF ALLURE

Angelpalette

NOBLESSE RANGE

Cloudten Village (Mobile)

WUNDERL

Schönheit

Richtig Coole Urlaubsort

SEA OF ELEGANCE

9

10

8

A01 B01 B21 C01 C21 C23 D01 D21 D23 D24 E01 E21 E22 E23 E24

A01 B16 B21 C16 C18 C21 D16 D18 D19 D21 E17 E18 E19 E21

F17 F18 F19 F20 F21 F22 F23 F24

G16 G17 G18 G19 G20 G21 G22 G23 G24

H17 H18 H19 H20 H21 H22 H23 H24

I16 I17 I18 I19 I20 I21 I22 I23 I24

J17 J18 J19 J20 J21 J22 J23 J24

K16 K18 K19 K20 K21 K22 K23 K24

L17 L18 L20 L22 L23

M16 M18 M20 M21 M23

N18 N21 N23

O18 O23

P01

AIREBY

Idyllbreeze

PARADASIA

MĚI GUÁN RIDGE

Glory Abode

Beholder

SWEETWATER SOUND

Felicity

SEA OF SPLENDOR

Biringan

UTOPIAN ISLES

SPARKLING SHORES

Laxaria

Taured

SAILOR'S PLAYGROUND

Flame Soak Springs

Firespire Peak (Volcano)

HY-BRASIL

JEWELED STRAITS

ST. BRENDAN

+0
+6
+6 +6
+6 +6 +6
+6 +6 +6
+6
+0
Quiet Time Resort