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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 create an unlimited number of *BattleTech* games for play, 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 as part of a larger on-going 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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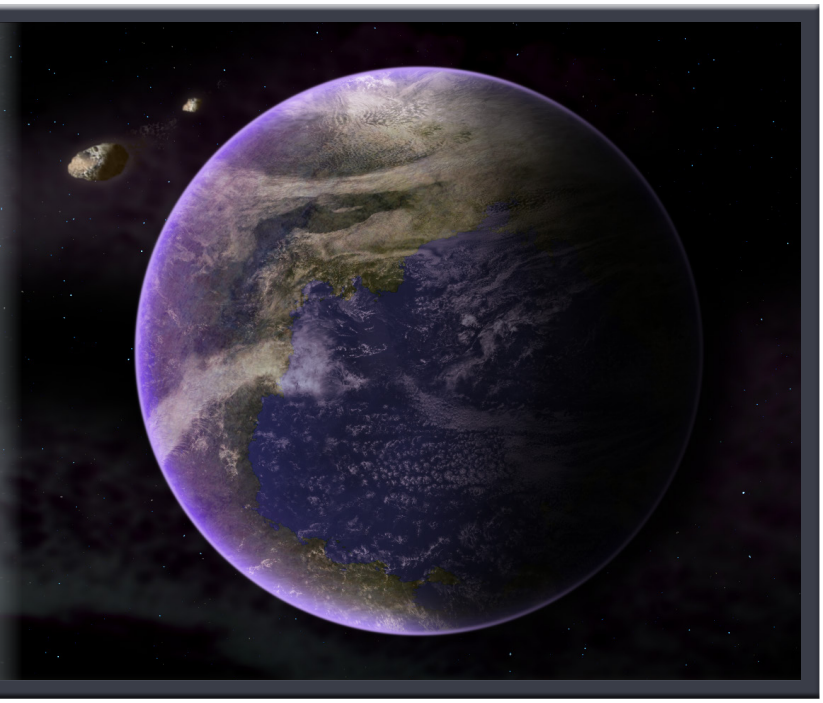
IONUS

Star Type (Recharge Time): K6V (197 hours)
Position in System: 3
Time to Jump Point: 3.91 days
Number of Satellites: 2 (Lycia, Myfia)
Surface Gravity: 1.0
Atm. Pressure: Thin (Breathable)
Equatorial Temp: 25°C (Temperate)
Surface Water: 30 percent
Recharging Station: Nadir
HPG Class: B
Highest Native Life: None
Population: 260,100,000
Socio-Industrial Levels: A-C-B-C-D
Landmasses (Capital City): Ionus (Kargon)



Like many of the millions of stars in the Inner Sphere, Ionus was studied by Terran Alliance telescopes decades before a JumpShip reached it. The operators of those behemoth orbital instruments rendered a colloquial ruling in early modern English that both justifiably deprioritized scouts from *visiting* Ionus until many years after its neighbors were *settled*. The ruling is still perfectly understandable in Star League Standard English: "It sucks."

Ionus is an old world that orbits a dim main sequence star. Its sun, which looms over twice as large in Ionus's skies as Sol does in Terra's, subjects the world to high ultraviolet levels in the A and B bands. However, that sun produces little ozone-forming UV-C to protect Ionus. Seven billion years under this bombardment have stripped it of what once was deep global ocean. Like the Capellan world Ovan, its remaining ocean is saturated with salts. Before humanity's arrival, the thin atmosphere was starved of carbon dioxide because tectonic activity has almost ceased, shutting down the geological carbon cycle and making the environment difficult for unmodified terrestrial plants. Its uncomfortably short, 12-hour day and two moons are thought to stem from an enormous collision with another planet relatively recently, perhaps two billion years ago.

The two moons, both fairly ellipsoidal ("symmetrical potatoes") with a maximum length of 225 kilometers, orbit Ionus in just a few days each. They each raise tides comparable to Terra's moon despite being less than one ten thousandth as massive, which add to the large tides from the sun to make living on the shores of "Minithalassa" interesting. (Minithalassa, the single land-locked ocean, was named as some play on "Panthalassa," a superocean of Terra 300 million years ago.)

The Free Worlds League eventually settled Ionus in 2405 due to the early travesties in the Age of War. The plans for this unpalatable world included a protected and hopefully secret shipyard, and a fortified command post in case the worst ever befell Atreus. Ionus had some useful features beyond proximity to Atreus. First, the old system was, ironically, of a late stellar generation and was abundant in higher atomic number elements, like germanium. Second, Ionus's primary was small and the proximity limit nearby. This worked against it defensively, but meant DropShips could reach Ionus and return to the jump point in approximately the time it took a JumpShip to recharge. Third, Ionus's two small moons were rich in easily accessed germanium, titanium, and other elements useful to a shipyard. Fourth, the moons and nearby star produced three convenient L1 jump points. The moons' points were transient because the sun's gravity sometimes placed the points deep in Ionus, but the star-Ionus L1 point was stable and close to the planet.

Only the basic facilities for the shipyard and a colony were in place before the Ares Conventions forever changed the Age of War. The shipyard project continued in secrecy until it was suspended when it was clear that the other Houses were adhering to the Conventions. The planet was declassified in 2425 under pressure from the corporations involved. With the yard canceled, it was hoped that civilian colonization and germanium mining would be profitable. In anticipation of civilian settlement, a short program of "ecological restructuring" ("terraforming" was too strong of a word) wiped out the remnant native algae and microbe populations in favor of terrestrial life modestly engineered to survive on the salty, high-UV world.

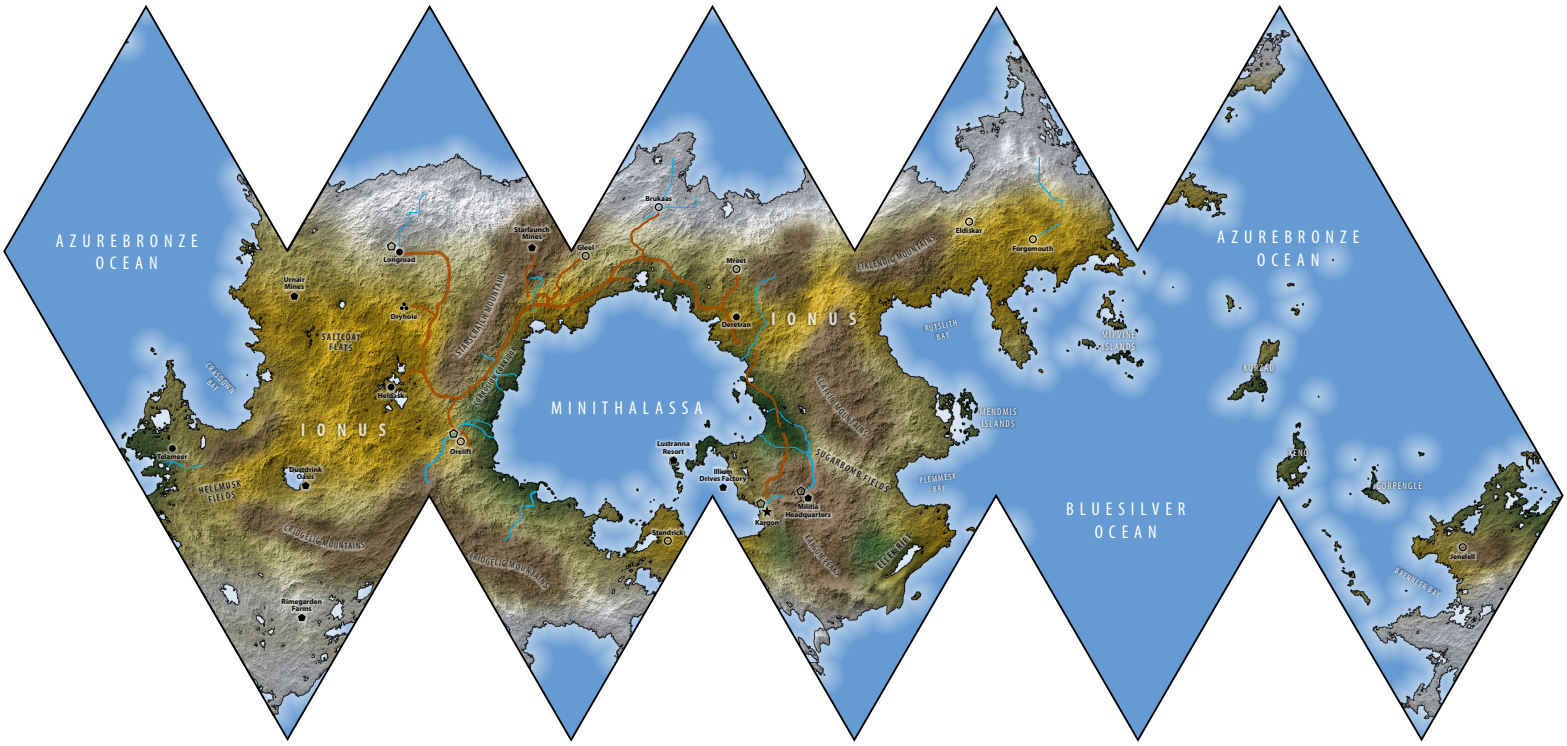
Settlement was not as fast as hoped, but the mines and factories started to support the stillborn shipyard drew employees and their families. The settled regions were away from climatic extremes and thus enjoyed Mediterranean or mountainous plateau climates: cool to pleasantly warm in the day, somewhat frosty at night, and always dry. Settlers adapted to the short days by being active from "midnight to midnight" so one of the two daylight periods per calendar day was in the middle of the workday. "Second noon," which fell on the calendar midnight, was usually avoided in windowless bedrooms. The growing industry did bring the population to ten million by 2500, after which natural growth and a trickle of immigration would carry it to over 100 million by the end of the Star League. Like many well-developed planets, Ionians have few children, so the population has not reached 300 million in the subsequent three-and-a-half centuries

Water resources are predictably scarce, though Ionus rarely called upon the Ryan Ice Cartel before the advent of Star League water filters. The planet has large ice caps from its low tilt and large land area, and those account for seven percent of Ionus's water. (The low tilt also leads to negligible seasons in the short, 1515-hour year.) The oblong Minithalassa was a thick brine, but evaporation from the ocean produced clean precipitation and freshwater rivers. Zoning and environmental laws always zealously guarded freshwater sources and arable land. This resulted in the small arable regions near Minithalassa and the rivers that fed it being densely developed as farms. Even steep valleys near the ocean were terraced for farming. In arctic regions, greenhouses exploited polar meltwater to produce luxury foods. Because meat production was an inefficient use of farm yields, few farms raised animals for slaughter. The little meat in Ionian diets came from sport fishing in the rivers (which are usually held as noble estates and thus not open to commoners; poaching is a serious offense) and sustainable fishing in Minithalassa, which was stocked with terrestrial life engineered to tolerate the brine.

A few staple crops dominate most agriculture. Prior to Succession Wars' bioweapon attacks that targeted CAM-cycling photosynthetic genes widely used in the engineered crops, agriculture was much more diverse. The current noble "farm junta" (a local term) that controls most farms has been slow to re-diversify owing to the cost of retooling their monolithic, mostly-automated farms to new crops.

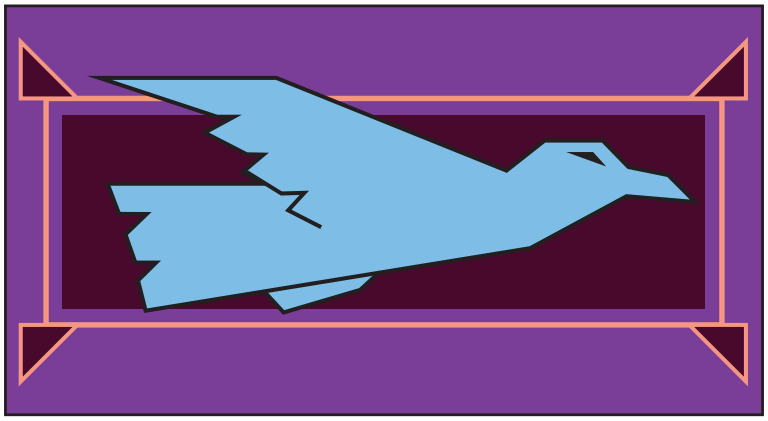
Ionian cuisine is thus primarily vegetarian, though not by ideology. Only nobles and the wealthy frequently eat meat other than seafood, and it is a New Years' tradition for commoner families to splurge on a rabbit or chicken. The noble-owned food processing companies have also been slow to incorporate artificial flavorings or texturizers, so Ionians are left either with direct vegetarian products (breads, pastas, vegetable and fruit dishes, etc.) or a small number of imitation foods (soy milk, synth-meat) with a limited range of textures. Chefs compensate by heavy use of spices and herbs, often in combinations and ludicrous quantities visitors find unpalatable. This is odd because many dry worlds with similar dietary restrictions make flavorful, balanced dishes, but wags suggest that shaker caps and cookbooks are lostech on Ionus.

Cities are necessarily forced into the desert by agriculture. The capital Kargon is a typical example. It sits on a mountain-walled bay on the near-arctic southern coast of Minithalassa that experiences



limited tides and has a warm ocean current just outside the bay. This moderates the otherwise-cool temperatures and produces abundant rainfall. Agriculture has claimed almost all flat land in the bay area, forcing the city into the mountains. The Succession Wars then drove the five million residents into dense strings of arcologies among the mountains, each holding five to fifty thousand people with integrated business and retail sectors. Forms vary from the squat, fortified "Guerra Brutale" style popular in the twenty-ninth century to soaring, bold glass towers of the High Hegemony style. The mountain-trained Ionian militia stays close to the capital, which is very difficult to assault in its mountain bastions.

At the opposite end from Kargon's compact, defensive layout is Longroad. Longroad is a city of 11 million in the northern hemisphere isolated from any water except a polar water pipeline. It was founded as a mining town and transitioned to aerospace and electronics manufacturing. The city receives its name from the eponymous highway that connects Minithalassa's northern shore with the city and then the north polar icecap. Because Longroad is surrounded by at least 500 kilometers of salt flats in all directions, it has only built up a little and instead sprawled. But because nobles own vast farm plantations (especially the profitable "sugarbomb" pseudocactus) clustered near the water pipeline, the city mostly grows along the highway. The few perpendicular "branch neighborhoods" are typically noble-owned subdivisions. In turn, the highway is constrained by the city and the fierce landownership rules so exploited by nobles. The highway has become a nightmarish tangle of multi-level roads, rail lines, and subways that are constantly being rebuilt and repaired. Urban lore describes planetary security bases, organized crime hideouts, and bizarre homeless communities in the interstices and abandoned parts of Longroad Highway.



Ionus has a relatively boring history, which its residents appreciate. In 2487, the disgruntled populous formed a planetary constitution after decades living as diverse corporate settlements under loose federal rule from Atreus. With that, it obtained representation in Parliament. At the time, the government was an unexceptional parliamentary democracy. It gentrified throughout the Age of War and into the Star League era as landowners gradually accrued powers, titles, and exemptions from some laws. By 2750, it was a *de jure* feudal monarchy, with nobles nominally punished by a "courts nobilis" separate of the planetary judiciary. In practice, nobles were rarely indicted or received modest fines for their crimes. The response of nobles to commoner unrest over noble abuses was to tighten electronic monitoring and implement a series of laws that broadened the definitions of slander and libel.

Deep raids brought tens of thousands of deaths to Ionus and ironically empowered commoners. Lyran and Capellan destruction of centralized, noble-owned fusion plants and water filtration facilities drove the planet to coal-burning power plants and thermal desalination facilities as a "wartime expediency" that lasted two hundred years. (Ionus possesses some of the finest, largest anthracite coal beds in the Inner Sphere, the result of an advanced ecosystem a billion years dead.) The crude replacements for lostech often demanded a great deal of labor, which put power in the hands of the laborers: commoners. The courts nobilis and slander/libel laws were repealed by reform bills in 2793 when a populist party came into power. The People's Republican Revolutionary Party only lasted five years before its own anti-corruption laws brought it down, but it left a reformed parliament with significantly more authority in the People's Chamber.

Like many planets deep in Houses, Ionus was spared direct attacks in the later Succession Wars. Instead, it suffered as it lost suppliers of advanced medical equipment, water filters, and its own fusion reactor factories. When its planetary germanium reserves became scarce Ionus attempted to establish mines on its moons, but those proved to be expensive target practice for Lyran and Capellan raiders. Ionus gradually sank into an introverted, self-contained world of modest technology and resources like so many planets during the Succession Wars.

The Helm Memory Core brought several changes. Inexpensive water treatment and new fusion power plants were two, though Ionians had grown inured to air pollution and water conservation. Rather, the new technology that mattered to Ionians was a biodegradable polymeric paper substitute. The plant-deficient planet made paper rare in the Succession wars and the inexpensive synthetic paper hygiene products were a welcomed wonder.

Technology recovery elsewhere in the League brought huge investments to Ionus. The same traits that had led to Ionus's original settlement were still valid in the 3040s. The FWLM and SAFE created a shell corporation to develop Ionus's germanium-rich moons and build a WarShip shipyard. The project accelerated with the Word's aid in the mid-3050s. When the shipyard was completed at the Ionus-sun L1 point and lunar mines were producing a bounty of germanium, the Free Worlds was able to repair WarShips recovered by WoB and build new ships for the FWLM. The yards have survived to the current day, though the destruction of suppliers and sundering of the League in the Jihad has greatly reduced their output.

The Word was a welcome guest in the 3050s, though it found few local adherents. Because Ionians had suffered so little direct effects of the Succession Wars they were relatively jingoistic and embraced the recovery of military technology. Building WarShips was a badge of pride, not the shame that Blake's tenets suggested. This relative resistance to Blake's philosophy meant the Word was unable to break into noble-owned planetary media companies and widely disseminate its views. The polite bemusement of locals and need for Word aid in the shipyard prevented the need for either group to take up arms against each other. Later in the Jihad, when most of the Word's security and military personnel had been stripped to other areas, Ionus decided to act on their League-destroying, Jihad-waging guests. A long-honed contingency plan used Ionus's security forces and militia to arrest key Word personnel and suspected sympathizers in critical positions, like shipyard operations. The "undercover" Word cyborgs were surprisingly ineffective because Ionians had been discretely scanning for them with the usual League anti-bionics paranoia and dispatched them in vicious ambushes. Civilian Word personnel were either caught in mass arrests or fled just ahead of security squads and lynch mobs. The coordinated sabotage that was expected of the Word was largely prevented by this operation, though shipyard production was halted for a month as computers were replaced and destruct devices were removed.

The Ionus of 3130 is an advanced but specialized world. The small aerospace companies supporting the shipyard are respectably advanced, but the planet's modest population does not support a well-diversified industry at that level of technology. Most consumer products available to commoners are considerably less advanced than seen on even neighboring worlds like Atreus.

A TIME OF WAR ADVENTURE SEEDS

UNDER PRESSURE

Recommended Group Size: 2-4 player characters

Recommended Group Type: Military, Covert Ops

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

When the capital city Kargon embraced new, affordable tunneling technology to build a 200-kilometer undersea maglev and road tunnel to a populous resort archipelago on Minithassala in the late 3040s, SAFE saw this as an opportunity to build a well-protected component factory for the planned shipyards. About midway along the tunnel, a two-kilometer branch was constructed to host a very secure undersea, underground factory that would assemble complete station-keeping drives for civilian JumpShips and shielding sections for WarShip drives.

While it was quite easy to use the undersea tunnels to deliver materials and personnel to the factory, the dimensions of the final engines or shielding sections were too large to exit by the same route. Instead, they were loaded into submersible barges in the factory, floated on an internal canal to an airlock, and then locked out to float gently to the surface where tugs would deliver them to Kargon's spaceport and waiting DropShips.

The deeply buried and submerged factory was well protected from orbital bombardment and even nuclear weapons at either the rail tunnel or airlock. Of course, the branch tunnel was elaborately protected and screened. Underwater turrets and a handful of submarines guarded the seas. And the seafloor surrounding the vertical airlock was 120 meters deep, which conventional wisdom held was too deep for BattleMechs and underwater infantry.

Still, disrupting the production of critical WarShip engine components was tempting to many parties through the decades.

Complications: A few obstacles for players to tackle.

Crumpled Like a Can: The factory airlock is not too deep for some units, and well armored 'Mechs and underwater battle armor designs may pay a visit. However, the environment is not kind to them, being even more vulnerable to hull breaches than in shallow underwater battlefields.

Why Is It Raining Indoors?: Select sections of the factory may be flooded in twelve combat turns. For *Total Warfare* and *Alpha Strike* combat, this means the area turns into depth 0 water on turn two of flooding, depth one on turn six, and depth two on turn eleven. Turn twelve just finishes flooding the ceiling air spaces infantry might have been sheltering in.

Clown Barge: The cargo bay of the submersible barges may hold five thousand tons of station-keeping drive or BattleMechs, but unloading from a cargo bay is much more time consuming than a combat bay. This leaves little time for obvious combat units like 'Mechs to get much done before the area is flooded or defenders responded. Infantry in sneak suits, on the other hand….

Tips: For *Total Warfare* scenarios, this is an opportunity to use the Extreme Depth rules of *Tactical Operations*, pp. 42-43. Player characters may want to consult rules for diving and sneak suits on pp. 296-297 of *A Time of War*.

IN SPACE, NO ONE CAN HEAR ENGINES ROAR

Recommended Group Size: 2 to 8 player characters

Recommended Group Type: Military, Technicians, Covert Ops

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

Although the multi-megaton Illium Naval Shipyard weaving around the Ionus-sun L1 point in a Lissajous orbit makes a tempting target, most potential attackers understand that the yards are only the final assembly point and build few components themselves. Before and during the Jihad, they were the most replaceable part of the FWLM's WarShip assembly program. Still, destroying the slips would set back production for years.

The shipyard was not actually at the L1 jump point, but rather at the L1 Lagrange point determined by the balance of Ionus's and its primary's gravity, and the centripetal forces of Ionus's radial velocity around the sun. This put the shipyard safely out of reach of kamikaze JumpShips, but any invaders immediately fell within range of all the sensors – radar to jump signature – of the yard and its defenders. The aerospace defenders of such a facility were, of course, numerous and skilled.

The weak spot was the personnel. The yards were thick with Blakists, whose relationship with League yard workers became more strained in every year of the Jihad. The yards were also staffed with personnel from across the fractious League, and the League's dissolution was disastrous for security personnel's peace of mind. Finally, the yards were overstaffed and had inadequate housing facilities for their great number of workers who suffered in the zero-G maladies, crowding, and frequent security interviews, and then were given access to the controls of mighty weapons of war.

Groups interested in destroying the yards only need to find the right disgruntled "yard dog" to, say, fire up the engines of a WarShip in for repair and steer the yards into Ionus, or perhaps begin test firing the weapons while still in the slip.

Complications: A few obstacles for players to tackle.

Disconnect the Interlocks: Disgruntled workers are not the first people to consider doing something suicidal and stupid with ships docked in a shipyard. Security personnel, of course, have worried about this. However, the yard dogs who have to crawl into rocket nozzles, gun barrels, and in front of deep space radars are justifiably concerned about unplanned activation, which leads to industry "lock out, tag out" and safing procedures. Getting past these will require visiting several places on the ship (and, possibly, shipyard offices).

This Is Why Calculus Is Important: The shipyard is not simply stationary at the Lagrange point, but rather following a more stable Lissajous orbit around the point. The delicate process of ramming hundreds of thousands of tons of WarShip into two million tons of space station in such a way the ship can safely bring its full thrust to bear, overcome counter-thrust from the station's own drives, and then breaking that orbit will be an interesting navigational challenge.

Anyone Bring Snacks?: The station is close to Ionus, but not so close that the "controlled flight into terrain" will be a matter of minutes. If everything goes well, it will be twelve hours – plenty of time for the ship's engines to be disabled or security to storm the ship.

Tips: For *A Time of War* scenarios, brush up on the *Strategic Operations* descriptions (p. 122 and 244) and rules of space stations. Familiarity with zero-G combat (p. 159 and 237 *AToW*) will also be important. After all, space stations are not single, large gravdecks.

The following section is designed to assist both players and gamemasters in using this series to create games and/or campaigns based on the worlds described herein. The following rules primarily rely on the players' understanding of 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.

SUGARBOMBS

This fairly innocuous pseudocactus is allegedly from a lost world somewhere in the Inner Sphere, but the homeland changes with every telling and is usually one the listener has never visited. The major sugarbomb orchards around Longroad and other Ionian inland cities stick to the story that it was found on Jardine, while popular Ionian conspiracy theories suggest it was found on Ovan, but that none of the noble orchard owners wants to admit importing a Capellan plant. A much-overlooked study by Dr. M. Oro (missing and presumed dead in 2807) of the University of Kargon noted that the sugarbomb's genes are very similar to the Terran pear cactus, but there are gross and obvious genetic patches from terrestrial coffee and sugar cane plants. Like most of the Inner Sphere, the people of the Free Worlds and Ionus tolerate necessary genetic treatments to adapt plants and animals to hostile environments, but the idea of genetic engineering for profit and/or pleasure is considered revolting. (And ask the Promised Landers or Terran Belters about popular opinions of human genetic engineering.)

Whatever the origins of sugarbombs, they are a major cash crop on Ionus. The tough plants almost perfectly conserve their water and carbon dioxide like little closed, solar-powered ecosystems. Excess energy is stored as a sugar-rich sap and caffeine is produced as a ward against pests. Because of alkalis and salt in the plant, they are not directly edible by humans. Not poisonous per se, but good for inducing vomiting and indigestion. However, with a little processing the sap becomes a fine basis for strongly caffeinated soft drinks. With the right brewing, it can be turned into caffeinated ciders, wines, brandies, and liquors. The only drawback is that sugarbomb is necessarily slow to grow in the nutrient-poor, dry soils of Ionus without substantial water and fertilizer input, which the world has trouble sparing from other, more vital crops.

Ionus does export some luxury sugarbomb products, but the plant grows well on many other worlds. Ovan, for example.

DRY RICE

Dry rice is a native plant to Layover. Technically a cereal, it produces seeds resembling husked rice that has been bred into various rice-like forms such as long grain and sticky. Other breeds are almost like risoni pasta and readily transformed into noodles and pasta with less processing than most grains or true rice. It is also tolerant of saline soils, high ultra-violet levels, and low moisture.

The many breeds of terrestrial rice and cereals humanity took into space have better yields with adequate irrigation and sufficiently rich soils, but dry rice is an excellent crop for the dry, salty fringes of Ionus's agricultural regions.

IONUS TERRAIN

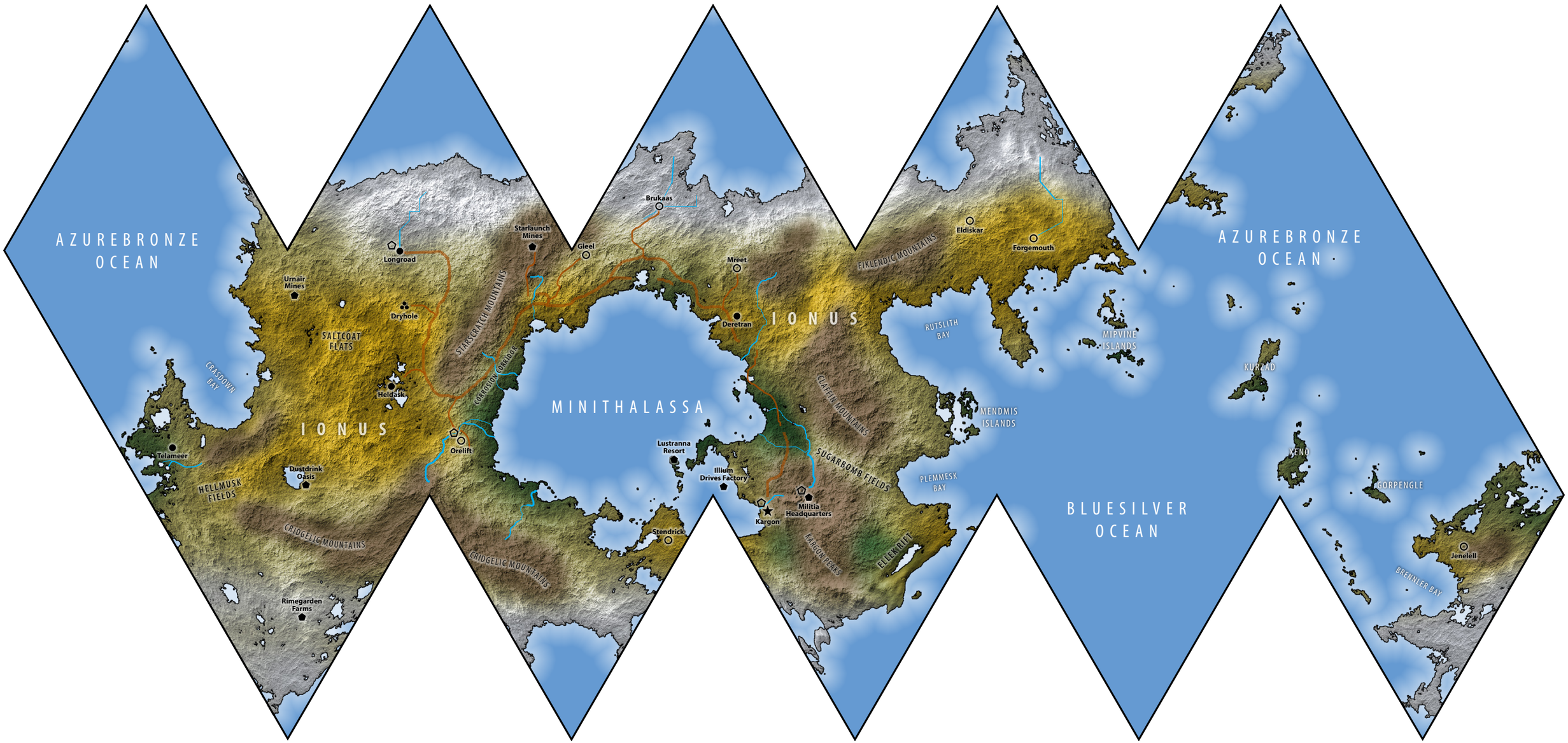
The inhabited areas of Ionus tend to be flat desert. The world's tectonics have largely halted, so there is little uplift to fight erosion. The large, unbroken salt pans and plains may be subject to fierce winds and sand storms as found on p. 61 and p. 62 of *Tactical Operations*, respectively. The Flatlands Terrain table on p. 263 of *Total Warfare* is a reasonable representation of most of the world's terrain. The capital of Kargon sits on a mountainous bay overlooking the ocean of Minithalassa, as shown in the Kargon Table below.

MAPSHEETS TABLE

KARGON	2d6 Result	Map*†
	1	Coast #1 (MS7)
	2	River Delta/Drainage Basin #1 (MS4, MSC1)
	3	City (Suburbs) (MS6, MSC2)
	4	Scattered Woods (MS2, MSC1)
	5	Desert Mountain #1 (MS3, MSC1)
	6	Desert Mountain #2 (MS3, MSC1)

*Place Light and Medium buildings of varying heights in each clear non-paved hex.
†Kargon, unlike most of Ionus, is not vulnerable to strong winds or sand storms.

IONUS


AZUREBRONZE OCEAN
Longroad
Starlaunch Mines
Gleel
Brukaas
Mreet
Deretran
Eldiskar
Forgemouth
FIKLENDIC MOUNTAINS
Urnair Mines
Dryhole
SALTCOAT FLATS
STARSCRATCH MOUNTAINS
CORROSION CORRIDOR
IONUS
RUTSLITH BAY
MIPVINE ISLANDS
AZUREBRONZE OCEAN
KURZAD
CRASDOWN BAY
Heldask
MINITHALASSA
CLAFFEIN MOUNTAINS
MENDMIS ISLANDS
XENO
Telameer
Dustdrink Oasis
Orelift
Lustranna Resort
Illium Drives Factory
SUGARBOMB FIELDS
PLEMMESK BAY
HELLMUSK FIELDS
Militia Headquarters
Kargon
CRIDGELIC MOUNTAINS
Stendrick
KARGON PEAKS
ELLENRIFT
BLUESILVER OCEAN
GORPENGLE
Jenelell
BRENNLER BAY
Rimegarden Farms

1

2

3

A01 B01 B06 C01 C03 C06 D01 D03 D04 D06 E01 E02 E04 E05 E06 F01 F02 F03 F04

AZUREBRONZE OCEAN

E06 E07 F06 F07

Urnair Mines

Longroa

Dryho

G01 G02 G03 G04 G05 G06 G07

SALTCOAT FLATS

H02 H03 H04 H05 H06 H07

CRASDOWN BAY

Heldask

I02 I03 I04 I05 I06

IONUS

Telameer

Dustdrink Oasis

J03 J04 J05 J06 J07

HELLMUSK FIELDS

K03 K04 K05 K06 K07

CRIDGELIC MOUNTAINS

L03 L05 L06 L07 L08

Rimegarden Farms

M03 M05 M08

N03 N06 N08

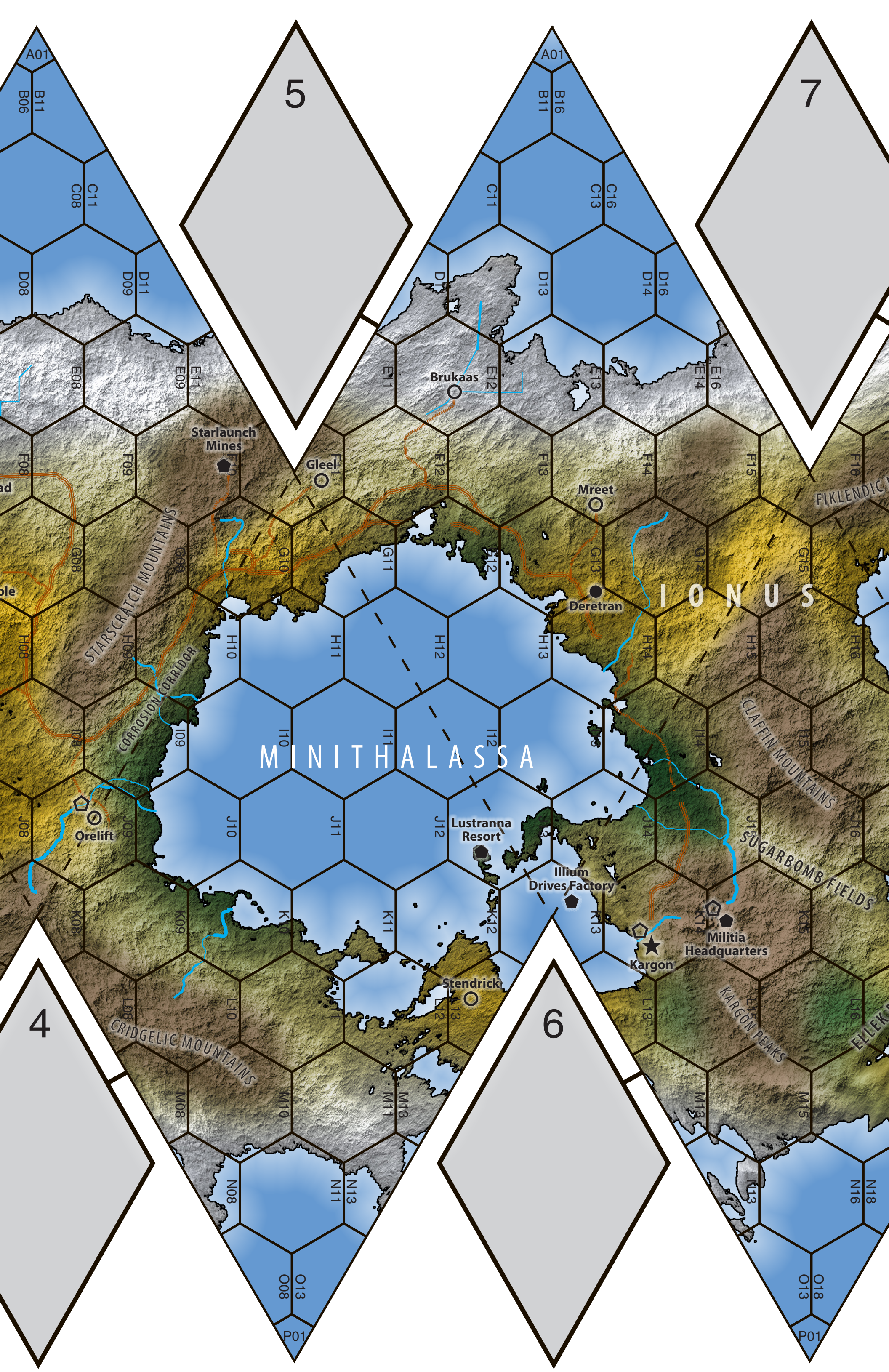
O03 O08

P01

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
A01
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C11
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D09
D11
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F08
F09
Starlaunch Mines
Gleel
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G09
G10
G11
H08
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H10
H11
STARSCRATCH MOUNTAINS
CORROSION CORRIDOR
I08
I09
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J08
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Orelift
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CRIDGELIC MOUNTAINS
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Brukaas
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Mreet
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G15
Deretran
H12
H13
H14
H15
H16
I12
I14
I15
Lustranna Resort
J12
J13
J14
J15
Illium Drives Factory
K12
K13
K14
K15
Militia Headquarters
Kargon
L12
L13
L15
L16
Stendrick
M11
M13
M15
N13
N16
O13
O18
P01
6
FIKLENDIC
IONUS
CLAFFIN MOUNTAINS
SUGARBOMB FIELDS
KARGON PEAKS
MINITHALASSA

9

Eldiskar

Forgemouth

AZURE BRONZE OCEAN

RUTSLITH BAY

MIPVINE ISLANDS

KURZAD

MENDMIS ISLANDS

XENO

PLEMMESK BAY

BLUESILVER OCEAN

8

10

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0201 0401 0601 0801 1001 1201 1401
0102 0302 0502 0702 0902 1102 1302 1502
0202 0402 0602 0802 1002 1202 1402
0103 0303 0503 0703 0903 1103 1303 1503
0203 0403 0603 0803 1003 1203 1403
0104 0304 0504 0704 0904 1104 1304 1504
0204 0404 0604 0804 1004 1204 1404
0105 0305 0505 0705 0905 1105 1305 1505
0205 0405 0605 0805 1005 1205 1405
0106 0306 0506 0706 0906 1306 1506
0206 0406 0606 0806 1406
0107 0307 0507 0707 1507
0207 0407 0607
0108 0308 0508
0208 0408
0109 0309
0209

P+9+6

P+9+6

P+9+6

P+9+6

P+9+6

P+9+6

P+9+6

O+

O+

K03
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J25
L25
N23
BRENNLER BAY
RPENGLE