

Exonidas Spaceport



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A Traveller™ adventure

No spaceport can ever be said to be typical; these facilities have more individuality than many cities. When spaceports are under consideration, however, Exonidas Spaceport on the planet Horltheur is among the better examples of a well-planned port adapting to unusual circumstances.

Horltheur is the third planet of the main-sequence star Taledde, a rather ordinary star of spectral class G3. (For a graphic display of the system, see Figure 4 on page 41.) Of the seven planets and many asteroids orbiting Taledde, only Horltheur is extensively settled. Coad, its satellite, boasts a significant base, however, and Donade and Corrade, two Mars-like planets in an outer orbit, have permanent scientific colonies. There is a technologically advanced mining colony about the gas giant Colosse that slings compressed liquid hydrogen toward Horltheur. The Lesser Ring, similar to the asteroid belt of Sol's system but slightly less dense, also is host to several standing colonies.

Horltheur is a world of average size, composition, atmosphere, and hydrographic percentage. It has good deposits of most strategic minerals, and its indigenous life is richly varied, with beasts, birds, and sea creatures in orders of complexity up to, but not including, true intelligence.

The UPP of A-866A78-F applies to Horla, the smaller of the world's two major continents. The other continent, Theury, can best be described by the UPP of D-866500-0, having recently undergone a cataclysmic war.

By the time the planet's technology had advanced to the point where it could destroy itself, each of the two continents had fragmented into opposing nations with conflicting ideals. The crusading spirit rose, and nations tried to impose their solutions upon their neighbors. Each of the Theuran nations was jealous and proud of its sovereign status, unwilling to unite; ultimately, they all found equality in annihilation.

Destroyed along with every important

city on the continent was the Tatheur Great Port, a spaceport that was essentially the property of the interstellar government (as is Exonidas); the loss was resented, to say the least, by the government's leaders.

Horla continent escaped untouched by the weapons of the short but deadly war. Its fifteen nations were shocked into dropping their own squabbles by what they monitored as it took place across the ocean. Right after the war all progress, all business, all activity, on both the ruined continent and the still-rich one, stopped. The world was numbed by the disaster. Those in power knew that the full effects of the war were yet to be felt. Within a couple of days, the realization came that three billion people had died, and tens of millions more were destined to die as well unless a quick and efficient rescue effort was mounted.

Into this hushed atmosphere came a great fleet: one of the interstellar government's first-line Battleships, along with enough support craft to take on an empire. The fleet was led by Grand Admiral Jennifer de la Noue. First on her agenda: Rescue the people who could be rescued, and save what could be saved. Second was the laying of blame, and third the job of determining what changes needed to be made to punish those at fault and prevent a recurrence of this disaster.

With her was Adrian Redmond of the interstellar government's Department of Commerce, aboard an electromagnetic effects and communications ship that was a flying switchboard of tremendous capacity. His job was to find a way to restore the economy of a world more than half destroyed.

Directly on the site of the ruined capital city of Tatheur, one of the Theury nations now dead, de la Noue's fleet set up Emergency City, a class D spaceport, to aid survivors and treat the wounded.

On the continent of Horla lies the nation named Dirla, and within that the city of Exonidas, Dirla's capital. The most populous of the fifteen Horlan nations,

Dirla wears its great city (pop. 950,000) like a crown. Now, With Theury continent dead, Exonidas, with its huge spaceport, is the biggest city on the planet; the port is (by default) the center of all off-planet activity of any importance.

Lying at the northern end of a long bay on the Sea of Lamps, Exonidas Spaceport is actually the land-bound half of a two-element port facility. The other half is an orbiting structure whose path keeps it always over the longitude of Exonidas City. Twice each planetary day, the High Port is directly above the Down Port. The orbit, at a constant altitude of 38,500 kilometers, pulls the High Port around the world at a velocity of 3.3 kilometers per second. The same orbit is a convenient parking spot for cargo and for ships. This is the orbit that the fleet in presence now occupies,

FIGURE 1: EXONIDAS DOWN PORT

A: Spaceport Terminal. See Figure 2 for detailed description.

B: Main Boost-Grid. The boost-grid is the heart of any spaceport with the technological base to support one. At older ports, ships must land under their own power, relying upon pilot expertise to avoid mid-air collisions or dangerously clumsy setdowns. Here, the boost-grid can reach out with gravitic force and either ease a ship to its landing pad or boost a ship from the ground into orbit. Using power from the main city power reactor (not in area of map), the boost-grid can focus gravitic energy with micrometer precision.

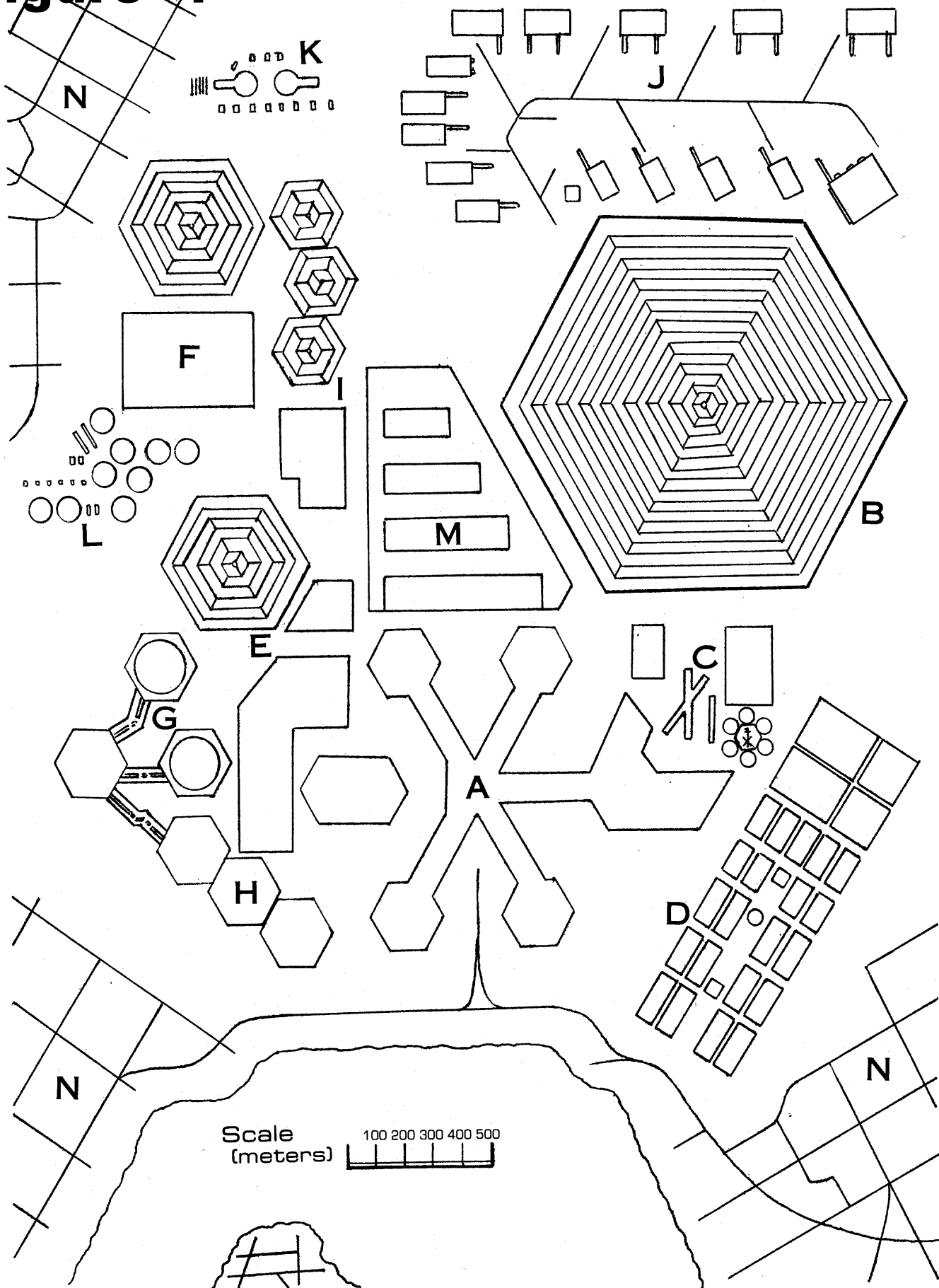
The grid is composed of tungsten-steel rails 10 cm wide, set into the flat surface of the landing field in a precisely defined pattern. The energy conducted along these rails is perfectly controlled by the main computers in the Port Authority building.

Any ship of up to 7,500 tons that is capable of landing on the field can be lifted up into high orbit, or can be brought down out of orbit and landed gently on the field. The point of focus can be moved by computer control in such a way as to take hold of objects as far as sixty degrees from the vertical line through the center of the grid; the range, or effective "reach," is 50,000 kilometers.

The main advantage of the boost-grid is that the ship being boosted into orbit has no need to use its own drives, or

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Figure 1 Exonidas Down Port



indeed even to have a working drive. The grid can, for instance, boost prefabricated sections of a larger ship up into orbit to be assembled in weightlessness. In general, the grid is used to lower shuttles and small spacecraft that nevertheless do have a backup drive for use in case of grid failure. The boosting and lowering of cargo and passenger containers without drives is not considered safe enough to justify the economy of such a measure.

The fuel saved by a ship using the grid instead of its own thrusters is on the order of one ton of fuel times the ship's drive number times the ship's mass in kilotons (but always a minimum savings due to use of the grid of one ton of fuel). Thus, a 5,000-ton ship using 2G drive to escape the world's gravity would use ten tons of fuel, which could be saved by use of the boost-grid.

The grid has 100 channels, meaning that up to 100 ships can be simultaneously handled by the grid, so long as the total tonnage being boosted does not exceed 7,500 tons. This multi-channel capacity helps cut down the average waiting time for use of the grid.

The procedure for a small ship — a Scout, for example—taking off from the grid would be as follows: After final approval for takeoff is received from the Port Authority computers, the ship, under its own power, flies up from its current docking bay (location M, see text below) until it is within the cone of the grid's effectiveness. At an altitude of about thirty meters, the gravitic focus of the boost-grid is aligned upon the ship, and a gentle force begins to push it away from the planet, while the ship's own maneuver drives are throttled back to an "idle" setting. The grid has the precision to release the ship either into an escape orbit, any of a number of closed orbits, or exactly into the orbit of the High Port. For more on the High Port and its own boost-grids, see below.

C: Airport and Heliport. This all-in-one transportation center has an international airport, a national heliport, a train station and a subway terminal.

D: Headquarters and home location of the 119th Heavy Marine Division. This division is a regular unit in the military of the interstellar government, and is based here with the permission of the Dirlan nation. Although Dirla is the host nation to the Exonidas Spaceport, the port area itself is considered to be legally a part of the interstellar government. Relations are cordial, and the right to base the division here was freely given by the Dirlan government. The 119th supplies the spaceport with security personnel and can provide riot-control troops if needed. At this time, only one of the division's four regiments is based here; the other three are working to clean up the disorder on Theury continent.

E: Naval Base with military boost-grid.

This smaller but stronger grid is run off an independent power supply, as are all of the military installations at the spaceport. This grid also has 100 channels, and can boost loads totaling 10,000 tons at one time; despite this, the military commander here prefers to, purchase power from the city and use the larger, public grid in Peacetime, because of the greater computer power (hence, less chance of a crash) available to the civilian authority.

F: Scout Base with military boost-grid.

This grid is identical to the Navy's grid. Normally, a force of 30 Scouts is based here, most of which would be in high orbit at any given time. Currently, due to the attention being paid this planet in its unusual circumstances, 48 more Scouts are attached to the fleet in orbit; this base supplies their needs as well.

G: Energy reactor. This reactor supplies emergency power to the entire spaceport, and all power for the military bases.

H: Fuel storage. Most of the fuel for planet-based energy production comes from the system's gas giant, Colosse. It is skimmed, refined, and compressed in facilities in orbit about the gas giant, then shipped toward Hortheur in huge, free-falling fuel canisters. At the High Port, this fuel is pumped into great fuel tankers which are lowered by the boost-grid to the surface to be unloaded. The overall benefit seems marginal: roughly a thirty-five per cent savings in fuel, considering what is gained and what is used to get it into storage. But multiplied by the thousands of ships and tens of thousands of cargo shuttles that yearly visit the port, the savings are substantial.

I: Fighter Base. While most of the in-system Fighter strength is based at the High Port, this base has a portion of the spaceworthy Fighters and is also an Aircraft base. Currently, 200 Fighters and 700 Aircraft are based here. While spaceworthy Fighters must be made to maneuver in vacuum, and to operate as well in any atmosphere, aircraft, specifically high-performance jets, can be tailored to the planet's air. The result is that many Aircraft can outfight Fighters as long as the battle is limited to the lower atmosphere. This base was built with that fact well in mind.

J: Construction Yards. The yards here, with direct access onto the landing field and boost-grid, have a total construction capacity of 6.8 million tons, limited primarily by the boost-grid's capacity of 7,500 tons. The yards are generally involved with building Scouts, Merchants, and Colonial Cruisers for resale; larger ships are not generally under construction at any given time.

K and L: Planetary Defense Sites. The batteries of heavy lasers and rapid-fire missile launchers based here are situated in heavily armored combat wells.

The city has many other such sites.

M: Hangars and Storage. The hangars have the capacity to house two million tons of spacecraft and shuttles, plus eight million tons of cargo.

N: Exonidas City. The city, its population temporarily (at least) swelled to more than one million by the influx of refugees, soldiers, and fortune seekers wrought by the war, is a nexus for communication and transportation of all types; phones, electricity, and broadcasting facilities are among its strong points, as are all modes of ground, air, sea, and space transport.

FIGURE 2: SPACEPORT TERMINAL

Although Figure 2 (facing page) only shows one level of the five-level building, the levels are all laid out in similar fashion. Level 4 is the highest-class, with the most expensive shops and most competent businesses. (This is not to say that Level 1, with the most approachable and inexpensive places of business, is "low class." Far from it.)

In Figure 2, general areas of interest are labeled with letters, followed by a number which designates the level, unless all levels are laid out similarly with respect to the function, in which case the suffix "-all" is appended. Specific offices, shops, or other items of interest will be labeled with a number for reference, and a number to show the level. (See also Figure 8: A typical office suite.)

A-1: Main Entrance. The road loops close to the entrance, with automatic parking service in nearby underground garages.

B-1: Terminal services and customer service counters. Ticketing and weigh-in is handled here.

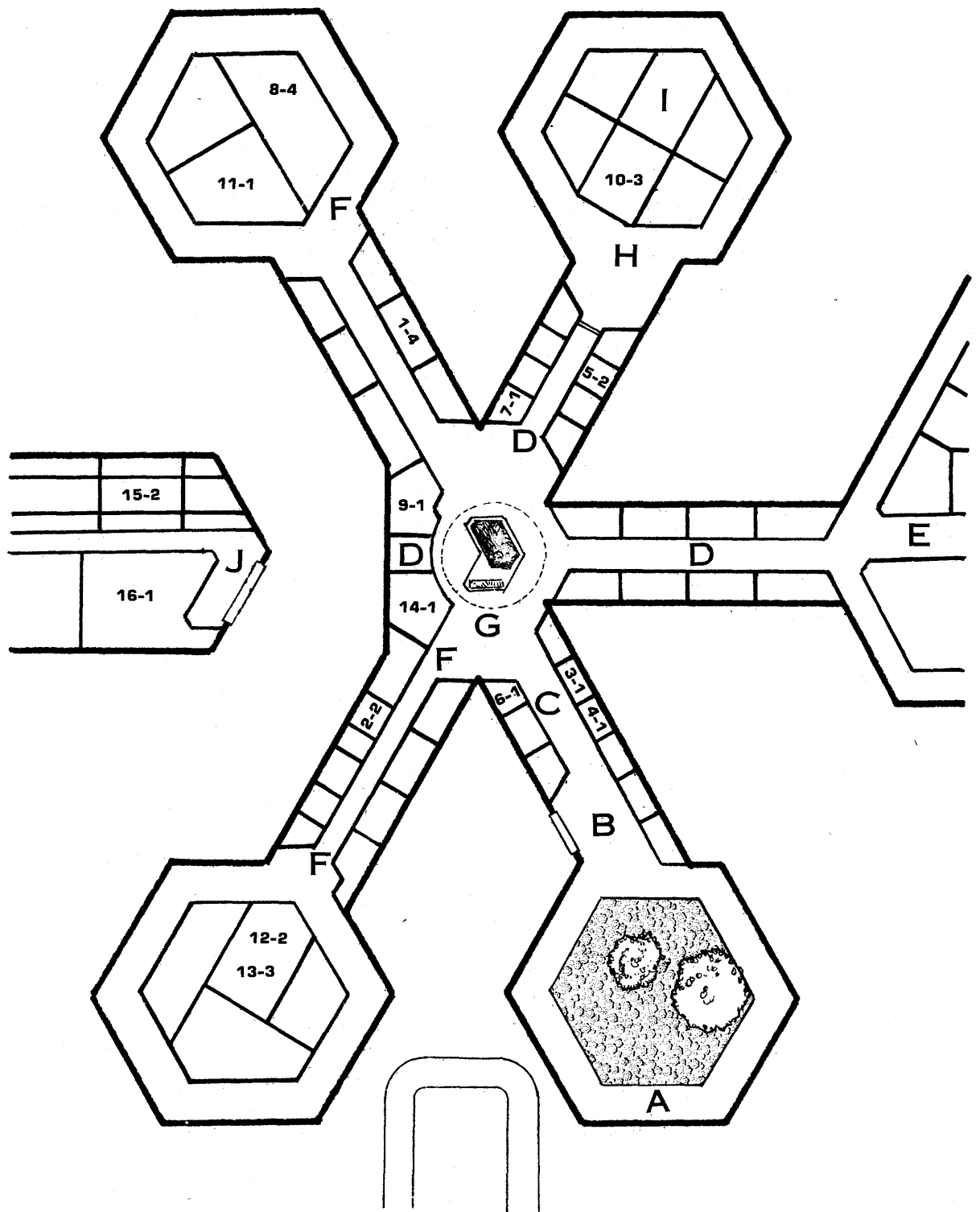
C-1: Portmaster's Representative. In effect, a high-class advertising agency for the interstellar government. Maps, insurance, and miscellaneous services can be had here.

Currently working out of this office, using a false name and papers, is Inspector General Robert Lawrence of the Interstellar Port Authority. His mission is to investigate the feasibility of ending the planet's political independence by absorbing it into the domain of the interstellar government.

D-all: Shops. Always within easy walking distance in these areas are restaurants, gift shops, services (barbers, information booths, rest rooms), luggage, clothiers, jewelers and watchmakers, pharmacies, travel agencies, stores for sporting goods and supplies, military recruiting offices, and a large establishment belonging to the Travellers' Aid Society. Several individual shops will be described below. See also the note on area F below for details on room layouts.

E-1: The International Airport. This is one section of the transportation complex described in area C on Figure 1.

Figure 2 Spaceport Terminal



Scale (meters) 50 100 150 200 250

Activity in this area of the complex is much less than normal, now with far fewer travel sites left on the planet.

F-all: Businesses and Offices. Shipping brokers in abundance operate here, as do resale brokers, importers, manufacturers, shipping line headquarters, and mercantile guilds.

Note: the divisions and lines shown on the map are those between larger sections of rooms; the walls portrayed are the permanent, load-bearing walls. Each of the "rooms" shown in Figure 2 is actually a suite of rooms or shops. The average business-office suite will be of this configuration: Entrance is through a large, lockable plate-glass door, either a swinging or a sliding type. Reception areas, work areas, and conference cubicles might be separated by small, flimsy screens, while file rooms, computer rooms, and meeting rooms might be separated by more permanent walls (which do not show on the floor plan). The floors are quite thick, made of permacrete and reinforced with structural steel. The ceilings; however, are often mere panels of decorative material at a height of 2½ to 3 meters, somewhat lower than the full 4-meter height of the main ceiling that is the floor of the next higher level. The hollow space between the ceilings is often filled with piping, wiring, and air-conditioning conduits.

(Several years ago, noted criminal Echel Anstove escaped capture by crawling through such a space with enough silence and dexterity to avoid his pursuit. The feat was unknowingly duplicated by the then-hunted Navy Captain Athalos Steldan on the world Chirkun.)

G-all: Open Area. On the second through fifth levels, the area inside the circle of dashes is open to the first level. On the first level is a planted area, styled as an indoor garden.

H-1: Security Gate. Tended at all times by a small but efficient 119th Division Marine detachment, this gate has a very secure weapons detector.

I-all: Observation Area. On the first level, this is an open waiting area where passengers prepare for imminent departure. On higher levels this area is an extension of the shopping promenade, with an observation deck overlooking the boost-grid.

J-1-3: Port Authority Building. Spaceport Authority Kevin Munrow, and his flight controllers, computers, radio traffic controllers, and other staff are here.

The Port Authority (or, technically, Commissioner of the Port) is a member of the Commerce Department, and therefore subordinate to Adrian Redmond. From working with the local planetary authorities as long as he has, Portmaster Munrow has developed a great deal of respect for Dirlan policies. He does not favor forcing the world into subservience to the interstellar government.

The Port Authority computers are roughly equivalent to three model/g-fib computers; their main purpose is to maintain a clear and free airspace.

Area 1-4: The offices of Dentos, Cahn, and Cahn, shipping and resale brokers. For *Traveller* purposes this is a +4 broker. Approaching a clerk of this office with even a hint of an unsavory or illegal deal is to invite immediate report and arrest. The brokers here have an almost uncanny reputation for being unbribeable, incorruptible, and, in business dealings, savage.

Area 2-2: S. Grimaldi, shipping and resale broker. Equal to a +3 broker. Criminals might find a warmer reception here than at Dentos, Cahn, and Cahn, but be warned: S. Grimaldi will play both sides of any fence. If reselling hot cargo turns out to be unprofitable, blackmailing the seller might not be.

Scattered throughout the terminal are +2 and +1 brokers of any stripe, from struggling and honest to filthy rich and totally criminal.

Area 3-1: In a visible spot stands the recruiting booth of the Turga Lancers, a mercenary regiment active on this world. The Lancers are carving out a fledgling empire in the ruins of Theury continent, across the ocean; the appeal of so much untenanted real estate was too much to be resisted. As much as the interstellar government and the Portmaster resent such an operation, no laws are being violated, and thus Commissioner Munrow is unable to legally evict the Lancers' recruiters.

Area 4-1: Drake's Slashers, another mercenary regiment, has a recruiting booth here. The Slashers, unlike the Turga Lancers, are building their empire on a foundation of good will. Where the Lancers, a heliborne unit, are conquering wherever they can, the Slashers, a heavy armor unit, have mobilized in what is basically a rescue mission, bringing food, supplies, medicines and medical aid, and most importantly order, to the survivors of the war on Theury. In exchange for the relief the Slashers bring, the survivors are all too glad to legally cede great estates of land that are currently useless to them in any case. Whether or not these contracts bear the force of law is an issue the Slashers feel will be decided in their favor by their prowling hoverships.

See Figure 9 (on page 48) for the current zones of operation of these and other military units.

Area 5-2: Hansen's Supplies Store. Respirator helmets, air tanks, filters, masks, and all other manner of survival gear is for sale here. Atmosphere testers and fallout detectors are popular items these days. The Theury war was fought with heavy, high-explosive warheads, very few of which were thermonuclear.

Thus, fallout over Horla continent has not been, and will not be, severe. Radiation testers are popular items nevertheless, and public awareness of health hazards is high.

Area 6-1: Navy, Army, and Marine recruiting. Situated near the Portmaster's representative, this is the sanctioned recruiting effort of the interstellar government. Policy dictates that recruits be trained on a planet other than their home world, but in this time of troubles, few recruits care to leave home. Even in spite of this, the station is pulling in its quota of man and womanpower.

Area 7-1: Bank of Exonidas. An interstellar exchange bank, fully integrated with the computers that run banking throughout the sector, the Bank of Exonidas can convert currency, make loans, prepare stock portfolios, collect forfeitures, and in general take care of just about any financial needs of travellers and businessmen. The bank is protected by a system similar to a spaceship's anti-hijack program; further, at any given time there will be two Marines of the 119th keeping a somewhat alert eye on the doorway.

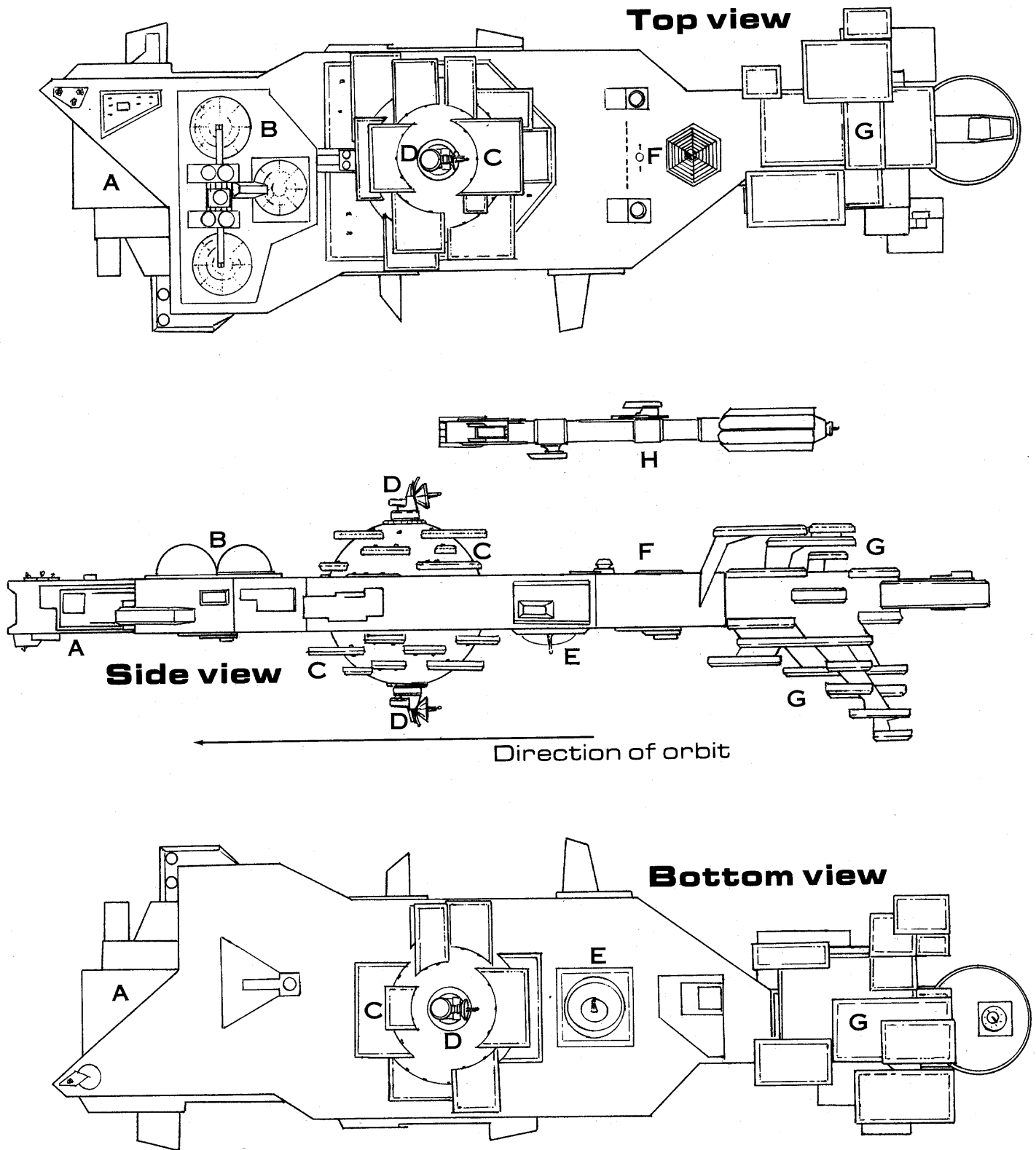
Area 8-4: Wrokla's Port Best. This restaurant is an offshoot of Wrokla's Downtown, which itself makes a plausible claim to be the best restaurant in the city. Although this place endeavors to cater to the better class of people, it is managed by a man, Hill Darsen, who knows that most spaceport travellers are not rich. Thus, to avoid a very unpleasant meal, a diner intending to patronize this spot must have a minimum social level of 9. This is better than Wrokla's Downtown, where even to be admitted to the foyer requires a social level of 11. A meal here for two, including tipping and other required gratuities, will cost upwards of 100 credits.

Area 9-1: Traveller's Aid Society Outpost. The main Traveller's Aid Society station was destroyed with Tatheur Spaceport in the war. The station here is working hard to gain the rich reputation the Theuran station once enjoyed.

Twice-hourly tram service is made available to the better hotels in the city, for those who are staying for some time; for the casual passenger, stopping here only for a connection, good-quality meals are dispensed, and a waiting lounge is provided away from the noise of normal traffic. A travel agency is based here, staffed by experts who are easily capable of helping travellers schedule their routes most efficiently. Ticketing can be prearranged here also, as can luggage check-through and most passport requirements.

Although the Traveller's Aid Society deals mostly with members of the Society, non-members may benefit from the services offered, at prices that are actually reasonable. How the higher-ups of the

Figure 3 Exonidas High Port



Scale (meters) 100 300 500

Society can consistently manage to bring good to excellent services to the public at comfortable prices has ever been a mystery; the policy is very well received.

Area 10-3: Susato, Morely, and Dowland Legal Services. This law office, recuperating from an unfortunate incident in which a live grenade was tossed through the doors, is perhaps the planet's leading firm for dealings in interstellar law. Local law and criminal law cases will also be handled by the firm.

Area 11-1: The Brass Beast. A wood-paneled alehouse with a low ceiling, reproducing the popular image of a rowdy hotspot of an era long past. Few things in the "inn" are beyond tech level 2, and the things that are — the soundproofing, the beer coolers, and the splat-gun hidden beneath the bar — are well out of sight. Managed with precise absurdity by a well trained pair of anachronists, the spot's rare dull moments are relieved by staged fights between trained duelists, whose choreographed swordfights take them from the fireplace to the kitchen and back, noisily but with no damage done.

Area 12-2: Offices of Birkenlines Interstellar Shipping. Characters seeking employment will find it at the following probabilities: Roll two six-sided dice. If the result listed below is achieved, employment is offered immediately. If the result is one or two less than the minimum needed, employment will be available in that many months. Required rolls are: Pilot 7+; Navigator 7+; Engineer 6+; Steward 6+; Medic 8+; Gunner 9+. Die Modifiers: +1 for every level of expertise above level 1.

In general, when using the above method of hiring on, the higher the two-dice roll, the better the position obtained. For example, a roll of 7 for a pilot hiring on might land him or her the position of backup pilot for a Subsidized Trader, while a roll of 16 (assuming the pilot had at least Pilot-5 skill) might mean the job of chief pilot for a large luxury liner. As always, the referee may choose to moderate these results.

Area 13-3: Pilots' lounge. A private and secluded gathering spot for pilots and navigators, where a quiet atmosphere is carefully cultivated. A discreet player character, having either pilot or navigator skill, can sometimes find rumors here — rumors of the most productive and rewarding sort. Too many people have the notion that a pilot is no more than a chauffeur, with no considerations beyond the comfort of his or her passengers. But pilots are more than this, and the popular illusion is resented. Who has the best view of the planet during terminal approach? The pilot. Whose life depends upon keeping two eyes always carefully open? The pilot. Whose job is it to know exactly where he or she is at any moment? The navigator . . .

"You may not have noticed, but the last ship that left, just as we were coming in, was in a tearing hurry, and his identification transponders weren't working." Who but a pilot would have noticed?

Area 14-1: First aid station. Treatment is available here for the many little things that plague travellers: nausea, overstress, headaches, and so on.

Area 15-2: Port Hospital. For things that no first aid station can be expected to handle. Excellent medical care is dispensed here by trained Naval medical personnel. The fact that the medics here are acting in an official capacity means that if a character comes in suffering from bullet wounds, for example, the fact will be reported, and the character will likely be interviewed by the police, or by port officials. Given a choice between crawling off somewhere to die and giving oneself up in order to receive treatment, most people will choose the latter course. Some, however, will try to reach a civilian hospital away from the spaceport to minimize the ramifications. Some people even know of outlaw doctors in the city who work for organized crime.

The port hospital has a special area staffed with experts on burn medicine, a necessary specialization considering how flammable spaceship fuel is. Currently this department is desperately understaffed, since all doctors and medics having any expertise in burn treatment are working desperately at Emergency City to save survivors of the war.

Area 16-1: Computer and traffic control center. Here the massive computers control the multi-channeled boost-grid. The machines are constantly alert for fluctuations in the titanic gravitic forces constantly being re-focused. There is a human backup for any computer system, for the very good reason that machine failures are always possible. Safety is uppermost in the minds of the area's personnel, and the first consideration of the computers' programming.

FIGURE 3: EXONIDAS HIGH PORT

The High Port is a 100-million-ton facility quite removed in structure from any spaceship. Despite this, it can be described in the terms of *Traveller* Book 5, 1980 edition, as follows:

100,000,000 tons
SW-Z400GJ4-00000Z-00000-L
Batteries 2
TL=15
Crew = 1400
Fuel tankage = 10,000,000 tons

More than anything else, the High Port is an orbiting fuel tank where ships can refuel before Jump, without having to carry that fuel down to the planet and back up. Since Jump fuel usually composes a sizable percentage of a ship's mass, the overall savings are significant.

A: Accelerator Terminus. This facility sends unmanned cargo containers at high velocity outward into minimum-energy transfer orbits, providing the main source of supplies and expendables for the five major bases in the system other than Horltheur itself.

B: Fuel Storage and Power Plant. Fuel coming in from the gas giant Colosse is held here for eventual transshipment to Horltheur, for use in refueling ships before their departure from the system. The fuel is sent from Colosse to the High Port in great, unmanned canisters which are then grappled by the High Port's gravitic boost-grids and unloaded.

C: Main Port Building. Located here are the offices and apartments of the many permanent residents of the High Port. The platforms extending from the central sphere are landing decks for such ships that can land; these decks are oriented by small gravitic generators, so that small ships landing on any of the many platforms are held firmly "down" toward the main body of the port with an even 1 G acceleration. Ships that cannot be landed on a planet likewise cannot be landed on these platforms. However, several of the platforms are landing-shuttle bases, with a quick enough cycle of takeoffs and landings to comfortably ferry the passengers and cargo of, for instance, a Liner, to the world below with minimal delay. The main port facility here has no shopping complex, and very little hotel space; the High Port is primarily a working port.

Some of the facilities to be found in the Main Port Building; but not shown individually on the map, are:

C-1 The Manufacturing Alley. Here, in an area of zero gravity, with industrial quality vacuum readily to hand, high-tech manufacturing concerns have based themselves, to manufacture and build everything from ball bearings to precision microelectronics to made-to-order microorganisms.

Although the High Port is, legally, entirely the property of the interstellar government, it has been judged wise to rent manufacturing space to the corporations of the planet below. The result is a profit for everyone. The companies renting space here are from everywhere on the planet, Horla and Theury alike. Since the major population centers of Theury continent are virtually dead, this now means that some 50% of Theury's wealth is tied up at the High Port, with the orbiting factories suddenly having become entire corporations, rather than just branch offices. The legal questions are still hanging over everyone's heads.

C-2: The Portmaster's Assistant's Office. Here, the Commissioner of the High Port, Donald Wensley, oversees the complex operations of the port. He checks all cargo handling, monitors traffic, and maintains law and order, and provides a

human backup for the all-important computers that control the smaller boost-grids. Fortunately for the irascible ex-Navy Pilot, he has a capable aide to handle public relations and to deal with complaints. Merely keeping the port operating smoothly takes up all of Wensley's time, and most of his temper.

C-3: Zero-Gravity Hospital. This has become the ideal place to treat burn victims, leprosy patients, and those suffering from damage to large muscles. Healing in zero-gravity is not much slower than healing on a planet's surface, and the absence of hampering gravity and weight is a godsend for suffering patients. It would be possible, using gravitic neutralizers, to construct a zero-G hospital or ward on the planet's surface, and for extreme emergencies this is indeed done. But the high cost of running such neutralizers makes the High Port's hospital a better investment.

At this time, the hospital is virtually overrun with burn victims from the warheads that fell on Theury continent just five weeks ago. It has been estimated that of all the people burned on that fiery day, less than five per cent ever received any treatment. Since burns, when left untreated, are more deadly than nearly any other injury, this means that about ninety per cent of those burned that day who might have been saved have already died. This is, of course, a drop in the bucket when compared to the 2.8 billion people who died within minutes of the falling of the first bombs.

C-4: The Research Alley. High-energy research in weightless conditions has been an ongoing concern of the High Port since its dedication. The sub-quantum labs here are most heavily involved with duplication of other labs' experiments, for validation purposes; little truly original research is done here. The same is true for the jump-technology labs and the meson-gun experimental station; testing the claims of more advanced research is the order of the day.

D: Gravitic Boost-Grids. Like the main boost-grid at the Down Port, these are used for the landings and takeoffs of spacecraft, and of the unmanned canisters that this port handles. Unlike the Down Port's, these grids are tightly focused by their dish antennae, have only one channel, and maneuver the point of focus by rotating and elevating of the dishes themselves.

These grids are distinctly less powerful than the main grid below, since there is no gravity to be overcome, and they have a more sharply limited range. Each of these grids can exert a push or pull of 100,000,000 Newtons — which means that a ship of 10,000 tons could be pushed or pulled at an acceleration of 1G, or a 1,000-ton ship at 10G. Since

there is no weight to work against, even a ship much larger than 10,000 tons can be pushed into place. . . slowly. Each grid's reach is 5,000 kilometers, with a sharp dropoff in power beyond that range. Like the main boost-grid at the Down Port, these grids are not limited to simple pushing or pulling in the straight line between them and their targets; transverse force can also be applied.

The operation of these smaller grids is as follows: A ship, either coming into the system from its in-jump or moving up from the planet below, passes at low velocity near the High Port. Guided by the gravitic equivalent of radar, whichever of the two grid-dishes is closer maneuvers itself until it points at the ship. Then (assuming the ship is to be docked at the High Port) the dish swings slowly about, towing the ship closer to the landing platforms at location C or location G (described below). As soon as the ship has been settled comfortably onto the platform, the dish swings back around to latch on to its next target. The same procedure is used for capturing the infrequent fuel canister shipments from Colosse; the canisters, massing 150,000 tons, once slowed, are maneuvered to location B.

These grids can be used for pushing objects away, as well as for pulling targets in; this explains the two batteries of Repulsors-Z listed in the USP above. Militarily, these are of questionable value in a fight, but the High Port was never designed as a fighting port.

E: Solar Power Relay. Aimed always at one of three receiving stations on the world below, this facility beams solar power that is collected from five large, sail-like reflective mirrors (not shown) in an orbit parallel to the High Port's.

F: Weapons Station, and Scout and Fighter Base. In truth, the High Port is not capable of defending itself. The heavy lasers and missile bays mounted here are a meager defense at best. The Scout and Fighter fleets based here go only so far to make up the gap. As just mentioned, the High Port was never designed with warfare in mind, at least not as a primary concern. This small installation is somewhat of an afterthought.

G: Landing Platforms. Similar to the platforms at C, above, these grids are used more for cargo than for passengers.

H: The Battleship Fair Phyllis, for scale comparison. Ships too big to be landed on either the planet or the platforms of the High Port can hang in orbit parallel to the port, tended by shuttles. This is how large ships are constructed; there is no "drydock" as such. When a ship too large to be handled by the Down Port is to be built, its pieces are boosted into the High Port's orbit and assembled. Indeed, this is how the High Port itself was built.

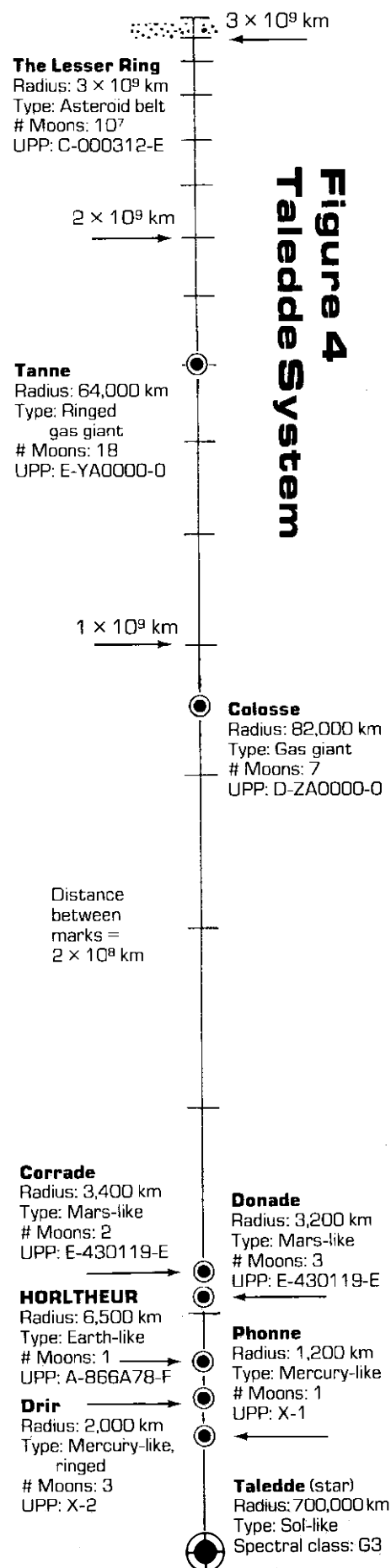
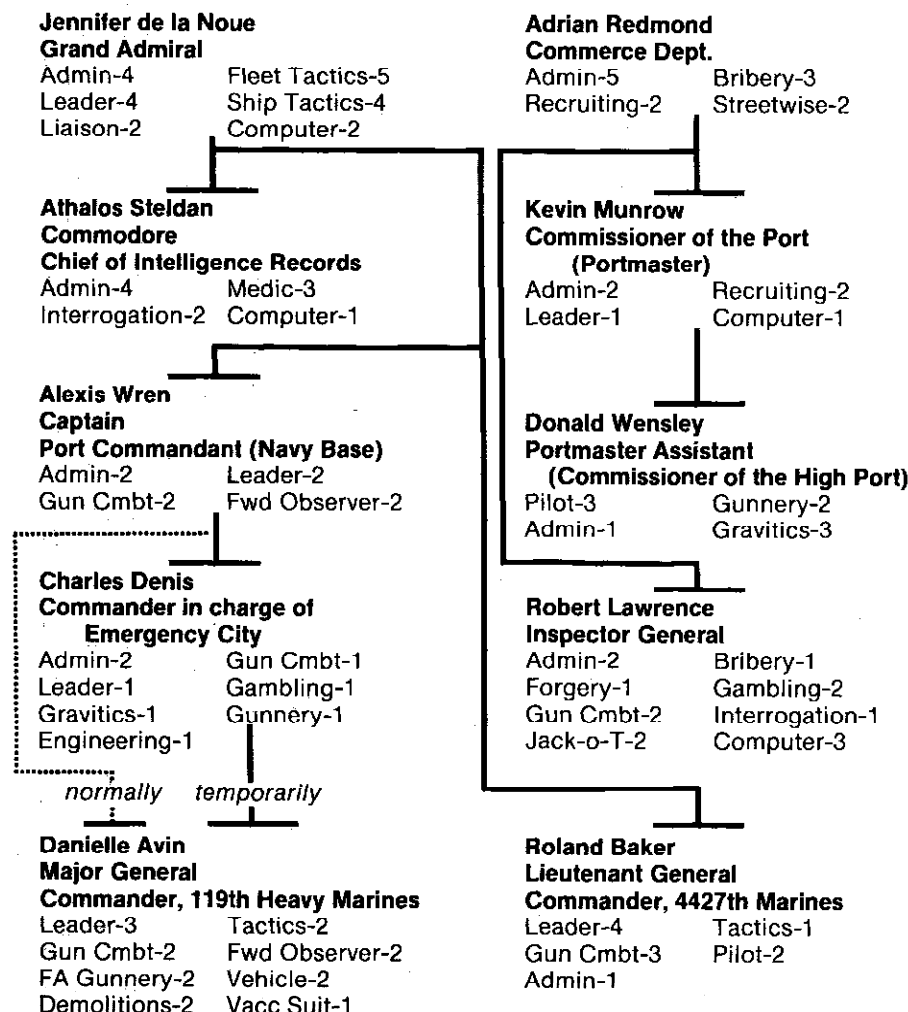


Figure 5 Chain of command



Commander Charles Denis
9A88A9, age 34

Sent to Theury continent directly on the heels of the war, Commander Denis had the assignment directly from Captain Wren to bury the dead, treat the injured, aid the survivors, enforce order, put out the forest fires, and get food to the people starving in the hinterlands. That the commander has succeeded at all is amazing; that he has succeeded well is little short of miraculous. Working out of Emergency City, little more than a tent town built around a makeshift Type D Spaceport (See Figure 7), he has established a system of advance camps that distribute medical supplies, and has put people to other work than fighting.

Major General Danielle Avin
B9D999, age 38

Using the mobile elements of the 119th Heavy Marines, she has stopped the outbreak of violence across the wastelands of Theury continent, sometimes without firing a shot. The interstellar Marines have long enjoyed a reputation for invincibility; no would-be bandit chieftain could stand against them, and few would try. General Avin leads her troops with a personal touch that is respected and admired, overseeing every aspect of the subdivisional operation with untiring attention. In areas she has pacified, no one has dared to renew the fighting.

Lieutenant General Roland Baker
687989, age 46

When the great battleship *Fair Phyllis* dropped out of jumpspace, the first people from its fleet to set foot on Horltheur were the 4427th Marines, and first among them was General Baker. This has been the first operation in the Division's history when the order of the day was to keep peace, suppress banditry, and help ferry casualties of someone else's war to safety. General Baker has adapted fairly well. Proud of being "a soldier, not a policeman," his operations have been perhaps carried out with too much of a show of strength. Advised by his staff against such overreactions as softening up target zones with artillery, air strikes, or orbital bombardment, he has swallowed his pride and proven himself quite a policeman indeed.

Adrian Redmond
596DF9, age 50

Aboard his complex command post of a spaceship, Redmond is here as a representative of the Commerce Department of the interstellar government. Wars disrupt commerce almost as much as they disrupt human life; Redmond's job is to do what he can to restore economic order. The peculiarities of the world Horltheur — its independent status and fierce nationalistic pride, its high taxes and great armies — brought about a

Thumbnail sketches

Grand Admiral Jennifer de la Noue
667BF9, age 42

The youngest-ever Grand Admiral of the Navy, de la Noue has risen to the top through the vacancies left by her superiors, who either died in the disaster at First Binary or were forced to resign after the cover-ups of Second Binary. De la Noue has survived primarily by being uncorrupt and 'incorruptible'. She passed through the recent ethics investigations of the higher ranks with an absolutely untarnished record.

Commodore Athalos Steldan
687BB9, age 38

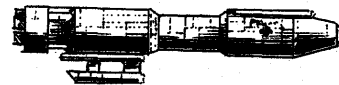
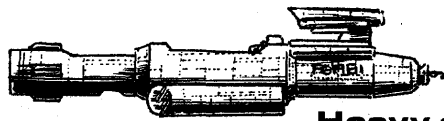
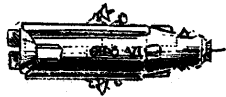
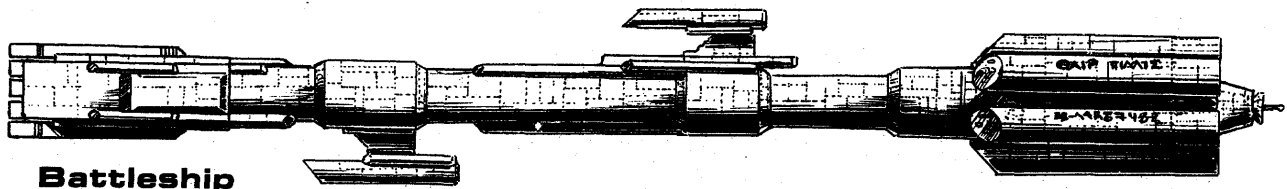
Although Steldan has a slightly more scandalous service record than is usual for his rank, including one unprecedented case of flight from prosecution, the facts have always served to acquit him. He seems to attract misunderstandings from his superior, the Grand Admiral, in direct relation to his frequent — some would say regular — breakthroughs and successes in his field. If he appeared to have sparked the abortive mutiny of two years past, the fracas clearly revealed

the degree of danger in the old fleet organization. Steldan's greatest coup was to rescue Grand Admiral Rothar Sienne from six years' captivity, when all others thought the old war hero dead.

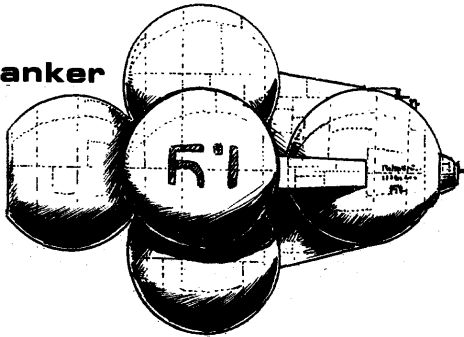
Captain Alexis Wren
89A999, age 34

Of good record and unimpeachable reputation, Captain Wren's top achievement seems to be the remarkable speed with which he reacted to the Theuran war. By the time his orbital satellites warned him of the missiles, there was nothing he could do to prevent the death of a continent. Singlehandedly, however, he kept the war from crossing the sea to Horla continent. His Fighter command intercepted and destroyed the very few intercontinental missiles launched — which seemed to have been fired for no better reason than to leave no survivors at all, neutrals or not — and his desperate videophone diplomacy with the leaders of the Horlan nations quieted their fears thoroughly enough to prevent an outbreak on that continent.

Figure 6 The Fleet in Presence

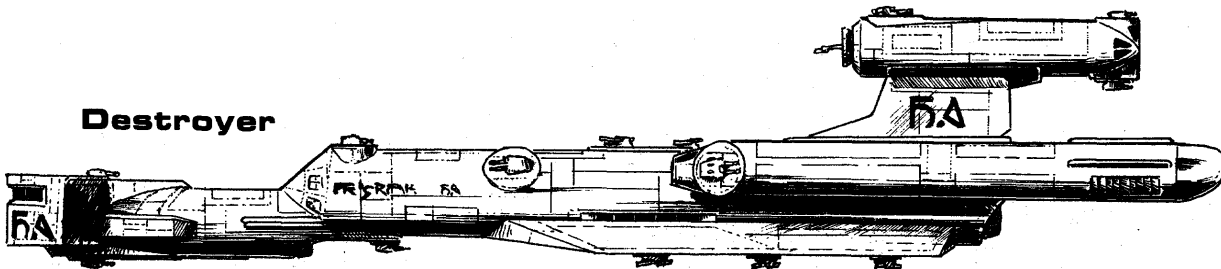


Fuel tanker



Scale (meters) 100 200 300 400 500

Destroyer



Scale (meters) 5 10

Figure 6: The Fleet in Presence

Battleship: <i>Fair Phyllis</i> 1,000,000 tons BB-Y3336J4-F09909-90009-W Batteries bearing 400 100 400 Batteries 800 200 800 TL=15 Crew = 38,000 Agility = 3	Hospital ships: <i>Barber, Diezette, Remedy, Haven, First Assist, Health, Tinct, Salve</i> 30,000 tons AH-M3334J3-000200-0 TL=15 Crew = 950 Agility = 0
Heavy Cruisers: <i>Cator, Dynamme, Forodh, Horor, Interpe, Flamme</i> 75,000 tons CR-Q3336J3-F09909-90009-3 Batteries bearing 45 10 45 Batteries 60 15 60 TL=15 Crew = 700 Agility = 3	Electromagnetic Effects/Communications Ship: <i>Graphein</i> 9,000 tons NL-J3336J3-200000-00000-0 x8 TL=15 Crew = 400 Agility = 3
Light Cruisers: <i>Desideriche, Todanga, Todega, Okemo, Lusederiche, Posata, Dand, Rung, Crusedereche</i> 20,000 tons CL-L3336J3-F09909-90009-0 Batteries bearing 15 4 15 Batteries 16 4 16 TL=15 Crew = 450 Agility = 3	Fuel Tankers: x 40,000 tons A0-N5334C3-400700-00000-0 TL=13 Crew = 250 Agility = 0
Fighters: 300 aboard the <i>Fair Phyllis</i> and 30 aboard each of the heavy cruisers 25 tons FF-0106Y31-000000-40000-0 Batteries bearing 1 Batteries 1 TL=15 Crew = 1 Agility = 6	Destroyers: x23 2,000 tons DD-B333CJ2-F07609-90009-0 Batteries bearing 31 1 Batteries 31 1 TL=15 Crew = 45 Agility = 3
	Scouts: x48 100 tons S-13339R1-000000-40000-0 Batteries bearing 1 Batteries 1 TL=13 Crew = 1 Agility = 3

state of confusion when the war hit. Even though no more bombs will fail, the untouched areas will be hit with economic dislocations that only a master hand can minimize. No one has ever denied that Adrian Redmond is a master hand.

Kevin Munrow
768899, age 30
As Portmaster, Munrow has the duty to aid his superior, Redmond, in any way he might. For five weeks now, since the war, flights have been coming and going via the international airport to and from Theury, carrying volunteers, supplies, and other aid. Since Redmond's arrival, the additional use of the Spaceport has been called upon, and it has been Munrow's job to keep it running smoothly as a participant in the rescue/recovery without interrupting its other, usual duties.

Donald Wensley
7F6889, age 34
This grouchy ex-pilot is in charge of the High Port, and has been strained to the limit taking care of de la Noue's fleet.

Most of the shuttles transporting material from orbit to ground, from ground to orbit, and from one orbit to another, have come from his port; when the spacehands of de la Noue's fleet take a break from duty, they take it at his port. His other duties cannot be forgotten either, leaving him busy with some problem or other for thirty hours out of every twenty-four-hour day. If one of his lieutenants is foolish enough to volunteer to take over some trivial chore, Wensley has plenty of energy to curse the fellow up and down. Since these emotional outbursts seem to relax Wensley, his staff somehow manages to provoke one every ten hours or so. Work gets done much more efficiently because of this, and so everyone is happy.

Robert Lawrence
ABAA99, age 34
Paradox: A loud-voiced, thick, tall man, with an aggressive manner of conversation, who is actually of a retiring disposition when allowed to be, Inspector General Lawrence of the Interstellar Port Au-

thority wields more behind-the-scenes power than do either de la Noue or Redmond, while technically subordinate to the latter.
Lawrence's responsibility is to investigate, tactfully, whether or not it would be a good idea for the interstellar government to quash Horltheur's independence and incorporate the planet. How is one to investigate an issue of such sensitivity without causing repercussions? Lawrence manages. He is to be a field agent for Redmond, without anyone knowing it. When neither one's employer nor one's contacts know whom is being dealt with, how can results be achieved? Lawrence manages. And when one is himself such a contradiction, how can he reconcile himself to his somewhat distasteful mission? Lawrence manages. Perhaps Redmond is better off not knowing just how.

FIGURE 7: EMERGENCY CITY
A: Water Desalinization and Power Reactor. This facility supplies 600 liters of drinkable water per minute, and nine

per cent of the city's electrical power. The rest of the power comes from imported fuel.

B: Hospitals. Like all the other hospitals on the planet, these are filled to overflowing, primarily with burn victims. Treatment has been effective, however; very few patients have been lost after being hospitalized.

C: Tent City. The city proper. Plumbing, drainage, and heating are all supplied from prefabricated units shipped here by cargo carrier and set up virtually overnight. Living is as comfortable here as might be expected, with little in the way of luxuries, but with all subsistence needs cared for. Currently, some 7,600 people inhabit the "city"; of these, only 280 are Navy and Marine personnel. Virtually every citizen of the city is single, and the only survivor of his or her family. Only luck has allowed them to live; the psychological injuries treated here are very nearly as deadly as the physical ones — or, say some doctors, more deadly. Since more citizens here die

from suicide than wounds, this may well be true.

D: The Ruins. Extending for dozens of miles to the north, the ruins of the old city are perhaps the prime cause of these suicides. Beyond the horizon, occupying the entire northern aspect of Emergency City, the blackened hectares present one of the most memorable and horrifying vistas conceivable. The toppled buildings all lean to the south, away from the impact point of the nearest of the seventeen bombs that hit this once-city. Black, gritty dust constantly drifts to the east, a thin veil against the sun.

A short distance into the ruins, some survivors have erected a small monument, built of stones salvaged from the toppled buildings and covered with cement. No one had the means to cast a bronze plaque, so the legend was scrawled into the wet cement, which then hardened, leaving the inscription permanent. The words are a quote from an anonymous survivor, who was heard to utter, just before dying of his burns: "This

whole thing was kind of dumb, wasn't it?"

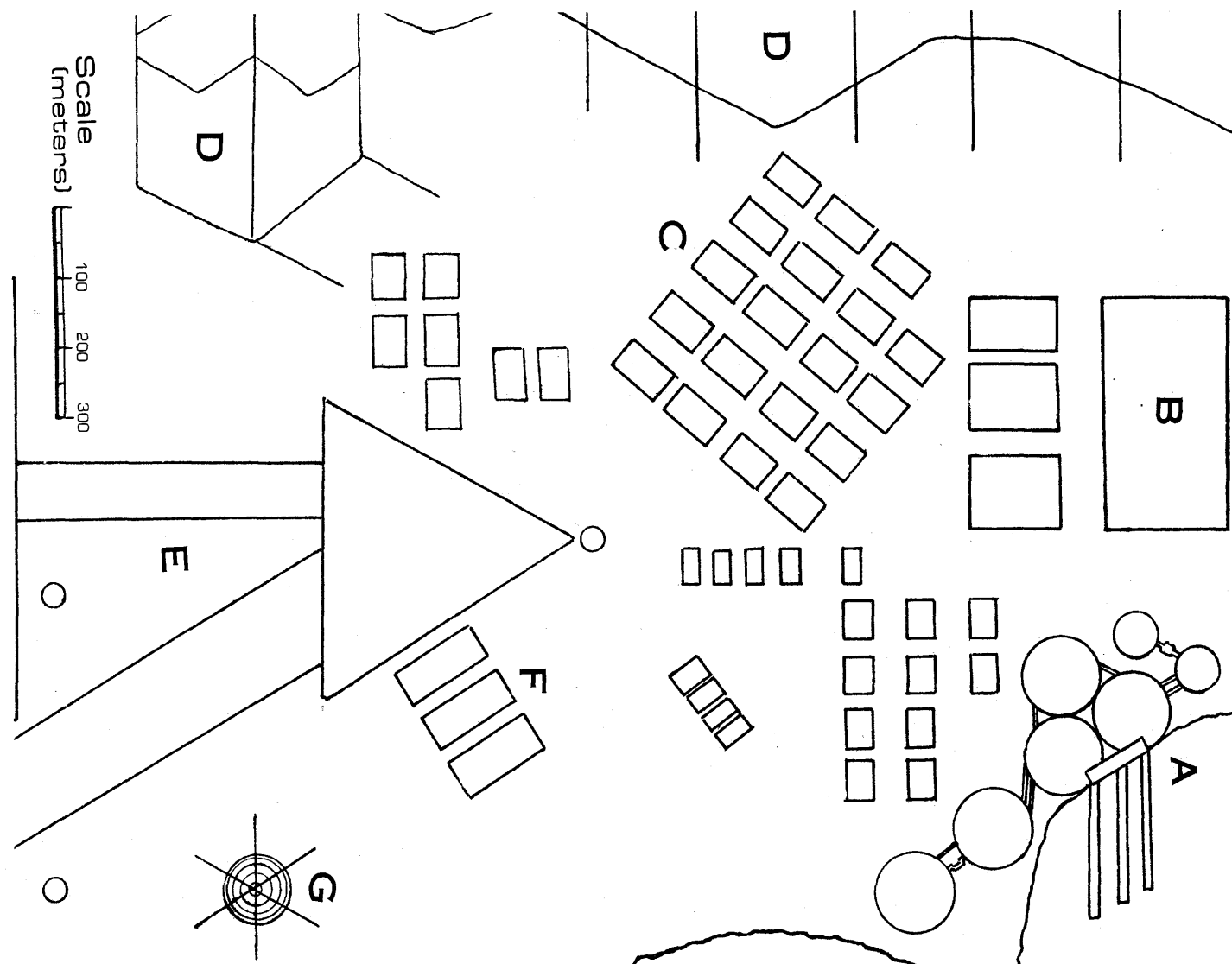
E: The Spaceport, class D. No boost-grid is installed here, nor terminal building, shops, construction yards, or warehouses. Ships must take off and land on their own power, and must share the runway strips with normal aircraft that fly in regularly from Horla continent. Spaced around the flattened and cemented field are landing-signal towers, so that ships may land by instrument during the city's frequent thick fogs.

F: Headquarters. From here Commander Charles Denis oversees the operation of the city, as well as activities around the continent. There are five computer model/1's here, some radio equipment, and little else. Contact is maintained with the advance camps spread over the continent from this headquarters, and with the orbiting fleet. For its part, the fleet sends down updated orbital photographs of weather patterns and of surviving settlements.

G: Radio tower. Equipped to send and

Figure 7

Emergency City



receive radio signals, and with the gravitic equivalent of radar, this tower is the city's link with the rest of the world.

FIGURE 8: TYPICAL OFFICE SUITE

A: Corridor. Each square is 1.5 meters on a side.

B: Offices.

C: Entrance to Torman and Son, excess stock liquidators. The firm is a struggling concern, equivalent to a +1 broker. No one can quite tell if the Tormans are honest businessmen or not, although their twice-yearly audit never uncovers anything more suspicious than arithmetic errors. They don't run a rich firm, or a really successful one, but they seem capable of handling the assignments people bring to them. In this area of the office, the receptionists deal with customers by phone, vid, or in person. There is a waiting room, neither spacious nor comfortable, but Torman and Son are not usually so busy as to keep customers waiting overlong.

D: Work cubicle. Here, clerk Jan Warner makes his retreat, filing his personal papers and worksheets. A customer coming into the offices with an assignment that didn't require the personal attention of the Messrs. Torman would probably be shown in here to deal with Warner as a representative of the company. Jan can handle his routine, perhaps without imagination, perhaps without initiative, but with something close to competence.

E: Work cubicle. Similar to D (above), this is the work space of Hjalmar Tar, company senior clerk. Although he'd never admit it to anyone, Tar has every hope of someday wresting control of the company from the younger Mr. Torman. Tar's every effort has gone into knowing more about how the company works than either of his employers — so that, on the long-awaited day when the senior Mr. Torman dies, Tar will be the only one capable of keeping the company afloat.

F: Office of Richard Torman, the junior partner. In general, Richard runs the office while Arnesco Torman, his father and the senior partner, runs the company. There are phones to be answered, letters to be dictated, and clerks to be harried. Richard keeps things running smoothly enough, not knowing that Hjalmar Tar, the senior clerk he hates and is hated by, has already made himself indispensable. Richard wouldn't last ten days without Tar; when the proper time comes, Tar intends for Richard to find that out.

G: Office of Arnesco Torman, the senior partner. Privacy, more than anything else, is to be found here. Arnesco's dealings are almost always by video-phone, where his aggressive personality can most effectively be applied. Arnesco's foes accuse him of browbeating customers and clients; in truth, his tactics go far beyond mere browbeating. By

switching from being stubborn to being reasonable, and at exactly the right moment, he achieves amazing results. Arnesco is not just the crank old price-gouger he lets himself appear to be, but a crafty and successful businessman, self-trained, poorly educated, and, if the truth be said, just a little bit brilliant. For eight months now, he has secretly been training a more loyal replacement for the insidious Hjalmar Tar, so that when the time comes, the disloyal clerk will unexpectedly find himself unemployed. That, he congratulates himself, was easy. Now on to real work.

H: The junior clerks' work area. someone needs to draft the sales contracts into good legal formula; three junior clerks take care of that necessary bit of drudgery.

I: Files Room. Somewhere in here, filed where not even Arnesco Torman could find it, is the first credit ever made by the firm. The rest of the files are duplicates of such things as stock certificates, letters mailed out, letters received, contracts signed, and so on. The originals of anything truly valuable are deposited downtown at the main branch of the Bank of Exonidas.

J: Hallway. This way to the restrooms. In this area are the commonplace things to be found in any office: unopened boxes of forms, the copying machine, and of course, the water cooler.

K: The Computer. Only Hjalmar Tar really knows how to use the computer — or so he thinks. Hjalmar gains prestige and pay bonuses for programming it, debugging it, kicking it when it crashes, and tending it in general. Of course this takes some time away from his regular duties, and some of the office staff have come to look on him as a well trained loafer. Hjalmar's replacement, when the surprise is finally sprung, knows more about this class of computer than Hjalmar has any hope of learning. There is no justice.

L: Conference room. Since Torman and Son holds very few conferences, this has turned into an unofficial storeroom, with boxes, bundles, and form verifiers. The table is nice, though, when it hasn't got junk piled a meter deep on top of it.

Outer space encounters

Immediately upon breaking out of Jumpspace, player characters' ships have a great chance of having an orbital or insystem encounter. Roll 2D6 and consult the following table.

2: No encounter of note: Normal traffic about the system.

3-5: Free Trader. Roll on subtable below.

6: Pirate. Although the law level of this system as a whole is quite high, the immensity of the system makes the occasional grab for loot a feasible act — even now, while the system is swarming with

Navy ships because of the one-continent war below. Roll on subtable below.

7-8: Patrol. Roll on subtable below.

9-10: Subsidized Merchant. Roll on subtable below.

11-12: Yacht. Roll on subtable below.

Free Trader subtable

2-3: Smuggler

4-8: Legitimate

9-10: Forged papers

11-12: Forged papers/smuggler/referee's choice

Pirate subtable

2-4: Scout

5: Yacht

6-10: Cruiser

11: Roll twice, ignoring 11 or 12

12: Roll three times, ignoring 11 or 12

Patrol subtable

2-6: scout (x 1D6)

7-10: Cruiser (x 1-2)

11: Something heavier (ref's choice)

12: Roll twice, ignoring 12

Subsidized Merchant subtable

2-4: Smuggler

5-8: Legitimate

9-11: Forged papers

12: Carrying inspector plus bodyguard squad; or, ref's choice

Yacht subtable

2: Kidnap victim

3-5: Smuggler

6-11: Legitimate

12: Ref's choice

In all cases, before radio contact is established, roll 2D6 for the other ship's captain's reaction, with 2 meaning overt hostility, 12 meaning genuine friendliness, and other results being shaded in between. Modify these results due to the realistic mission of the encounter. A Pirate, rolling a 2, will attack, to board and kill; rolling a 12, he might seek to entice the players into a partnership. A Patrol, on the other hand, would be limited to extremes of either firing a warning shot and boarding for inspection, or letting the players pass without delay, while radioing across a friendly and perhaps useful message.

Down Port encounters

Roll 1D6 twice, to give results from 11 to 66, reading one die as tens and one as digits.

11: Unexpected -2 on sale price of cargo.

12: All the passengers you need.

13: Ship's weapons for sale at 5% discount.

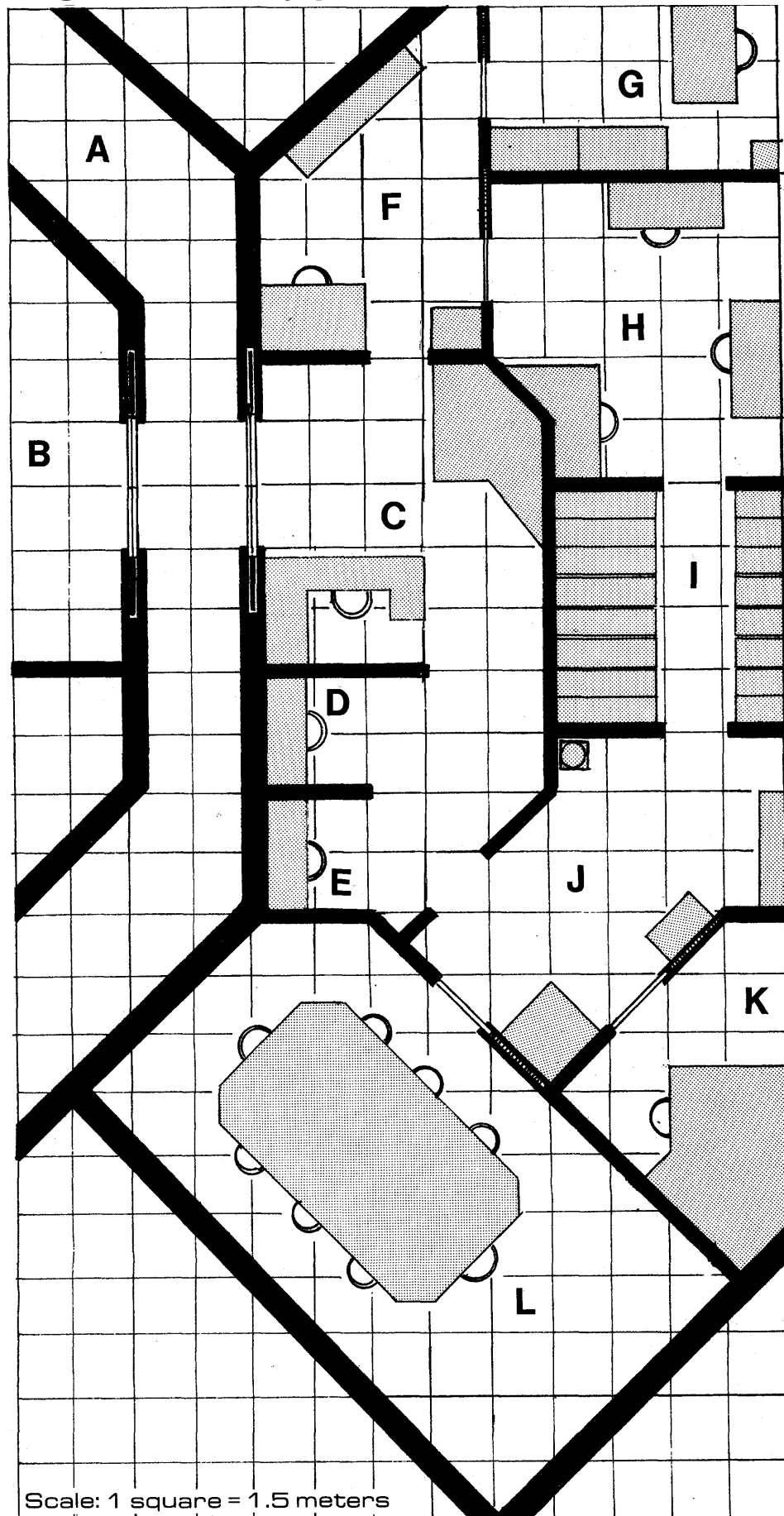
14: Unexpected +3 on cargo resale.

15: Cargo for sale: your choice of first digit on Trade table.

16: Cargo for sale: Your choice.

21: Unexpected +1 on cargo resale.

Figure 8 Typical office suite



- 22: Fuel at 75% normal cost.
 23: Unexpected +2 on cargo resale.
 24: Cargo for sale at -1 on price.
 25: -10% on annual overhaul, good here only, any time in the next six months.
 26: -30% on price of missiles/reloads.
 31: Bargain in a shop or store (low value).
 32: Bargain in a shop or store (low to average value).
 33: Bargain in a shop or store (above average value on needed items).
 34: Bargain in a shop or store (excellent value).
 35: Rumor.
 36: Rumor.
 41: Favorable business offer; ref's choice.
 42: Rich passenger in need of quick passage.
 43: Shipping delay.
 44: Insult.
 45: False accusation.
 46: Papers served on your ship, preventing departure or loading.
 51: Small bomb placed on your ship; 50% chance bomb threat called in.
 52: Broker defaults, pocketing his fee.
 53: Embarrassing fiasco with friendly natives and two marines.
 54: You are mixed up with and implicated in illegal drug dealings.
 55: An accident occurs (1-2, to you; 3-6, to another).
 56: Illegal business offer (1-2, trap; 3-6, for real).
 61: You suffer a false arrest.
 62: You suffer a false arrest, and find that the evidence could easily lead to a conviction.
 63: An attack from a person with a club or fists (1-2, on you; 3-6, on another).
 64: An attack from a person with a knife (1-2: on you; 3-6: on another).
 65: An attack from a person with a gun (1-2, on you; 3-6, on another).
 66: An attack from a hidden Psionicist (1-2, on you; 3-6, on another).

This table is used once per day, at most. At the players' option, this table might be used only once per week.

Players may, by their option, act with circumspection, trying to avoid unpleasant encounters. If so, results on the table will be restricted to 31-46 inclusive.

Options for adventure

This world is legally independent of the larger interstellar government, so that going into business as an importer, for instance, while difficult, may be rewarding. There is great profit to be made in mining or salvaging the sites of the ruined cities of Theury continent, organizing relief efforts (for pay), capitalizing on the nearly vacant continent itself (land prices are wildly unpredictable), or even setting oneself up as a bandit king. (Many such have gone into business despite the order-keeping efforts of the

Navy and the Marines. Can you do better than they have?)

In space, the Fleet in Presence tends to put a damper on piracy, a disadvantage equally offset by the presence of plentiful, rich traffic ripe for raiding. In other fields, trade is needed in the items that Theury continent used to produce. Shortages of these products — mostly high-tech stuff such as computers— will begin to be felt on Horla continent before too long.

The operations of the fleet are concentrated toward the planet below. What would happen if an enemy fleet made a sortie at this time? Although this is felt to be unlikely, so were the historic raids on Pearl Harbor and on Port Arthur.

Back in the hinterlands of Theury, up in the high hills, survivors and bandits skirmish for control of the few undestroyed resources. The Marines are spread dangerously thin. Could a bandit horde, of tech level equivalent to 5 or 6, successfully ambush a patrol of Marines at tech level 15? Can the Marines keep order while killing an absolute minimum of troublemakers?

There's an assassin high in the mountains, stalking one of the few living officials of Theury continent. Is that intended victim now the legal president of the continent? Can he be saved?

Emergency City needs doctors. Theury needs able and willing workers of any description. No skill would be unwelcome. There is a government—an entire continent — to rebuild from scratch.

A rumor: Fifteen massive warheads are unaccounted for. Are they buried, undetonated, where they fell? Were they ever launched? Are the records incorrect? Some might object that this is a trifling complaint: The Turga Lancers carry more than forty low-power tactical warheads, and Drake's Slashers more than one hundred. But these that are rumored to be missing are city-busting devices. In the wrong hands . . .

A rumor: A group called the Planetary Independence Party is planning to use this opportunity for confusion to take over the Spaceport at Exonidas in a commando-style guerrilla raid. Is it nonsense, propaganda, or truth?

A rumor: Theury continent has been opened up to colonization. It's up for grabs, folks. Although not true, the story has gotten wide enough circulation that entire planetloads of would-be adventurers have gotten themselves a grubstake and some camping equipment, intending to become frontiersmen and settlers. How are they to be stopped? Or should they be?

There are opportunities on Horltheur; if you don't seek them out, they'll never pay off.

Figure 9 The planet Horltheur

