The JOURNAL of the Travellers' Aid Society

Vol. 4

TRAVELLER

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CREDITS

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TRADE AND COMMERCE

Sooner or later in the career of the typical referee, a group of Travellers is going to stumble across the rules pertaining to trade and commerce. When this happens, nine times out of ten the referee is fated to watch the familiar forms of these Travellers change with the inevitability of a werewolf under the full moon as they become consumed with the overriding urge to become merchant princelings of deep space.

Some get over it soon, and go back to being devil-may-care mercenaries, happily quoting muzzle velocities and rates of fire and never giving a second thought to cargo and brokerage rates. But others never recover; they can be recognised by their battered calculators worn down by frequent percentile comparisons, hands clenched from rolling dice for cargoes, and, above all, the look of pure, unadulterated greed gleaming in their eyes as they recite that favourite question, 'what types of cargos can we pick up here?'

The referee, though, faces a much harder set of questions. How does one keep up a series of exciting adventures while the Travellers want to spend all their time buying and selling cargo? What approaches exist to limit their growing wealth (without intervening too bluntly), in order to avoid having them becoming multi-millionaires who do not give a hoot about adventuring anymore?

COMMERCE AND ADVENTURE

Travellers who carry cargo and passengers for hire are, of course, engaged in commerce, but the rules are rather carefully balanced to make it very difficult to make much of a profit. Even if there are no bank payments to be made on the ship, maintenance, life support, fuel, supplies, major repairs, and similar expenses drain a large part revenues earned, making it necessary for the group to take occasional 'adventuring' jobs to make ends meet. Keeping the Travellers in need of money is a solid foundation upon which campaigns frequently rest. Why else would the Travellers risk life and limb, if not for personal gain? (There are other good motivations, but greed is most common and can be most readily identified with!)

Enter the rules on speculative trade.

These rules permit the Travellers to start with some seed money (which they can almost always raise) and, with a little care, turn it into a fortune. This is not to say that they cannot lose their shirts while engaged in speculation, but Travellers with even a handful of smarts will plan routes to suit their cargo, and maximise profit potential. More often than not,

such Travellers will be turning a profit, which can quickly snowball through further careful planning.

Moreover, those Travellers who go about the process right will have a tendency to focus on speculation to the exclusion of all else. If this happens, the referee may find themselves spending more time regulating speculation dice rolls than in administering an adventure or campaign. There are some ways to deal with this, however. The options open can be used to suit circumstances, and need not be exclusive of any other option. Ideally, most or all of these approaches should be used in an ongoing campaign to keep things moving.

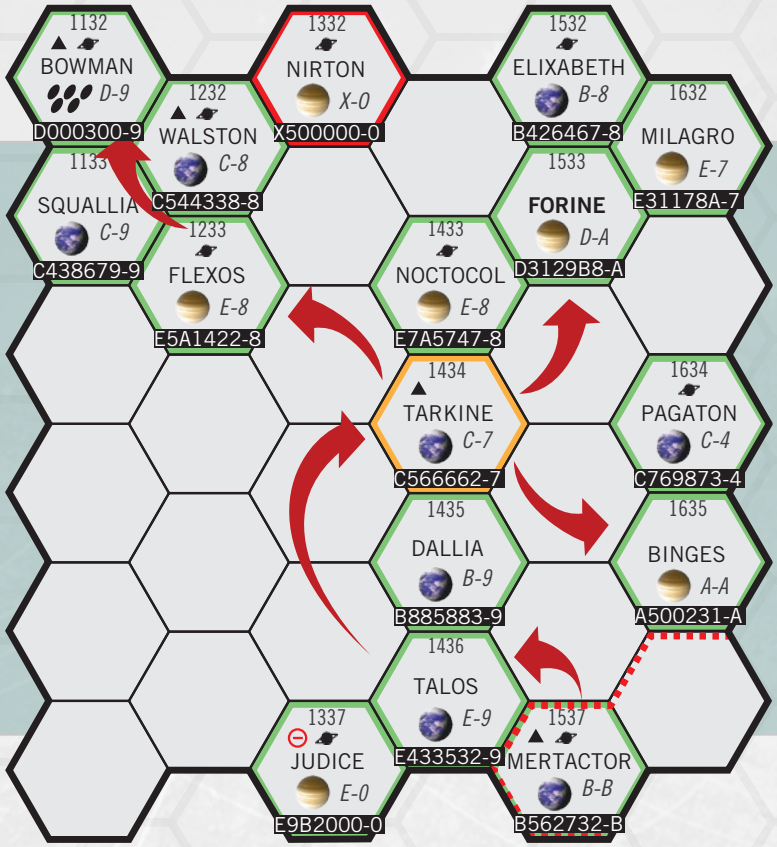
GO WITH THE FLOW

The first option is also the simplest – let the Travellers have their way. This is best done when they first get involved in speculation, and kept up until things get ridiculous. Actually, trade and speculation is a good transitional ploy to break up adventures; after all, the Travellers cannot face death and destruction every day of their lives – and they cannot save the galaxy eight times a week (twice on Sundays). So, a little intermittent commerce serves as a good way of earning a breathing spell. While it lasts, the Travellers can rebuild the finances, find useful items of equipment or information as they travel, and not really realise that they are not really doing anything. The referee can use this time to start preparing a new adventure to spring on the Travellers later on. Indeed, commercial travelling can be turned to the referee's advantage. Properly handled, it can be used to lead the Travellers by the nose to a specific destination. To do this, the referee must be the one to make all trade and speculation dice rolls (and in secret) and must be willing to ignore some results in favour of those that further the cause.

Let us look at District 268 in the Spinward Marches as an example. The Travellers have a far trader and start at Mertactor, at the end of the trade routes from the Glisten subsector of the Imperium. The referee has plans for an adventure involving asteroid mining in the Bowman asteroid belt eight parsecs away. Now, a patron might ordinarily be used to charter the ship for a flight to Bowman, but a more subtle way to get the group there is through manipulation of the trade rules.

The Travellers start with a little money to invest, but they want to make a profit through trade and speculation. The referee ponders, pretends to randomly create a cargo, and announces that the cargo is common raw materials – inexpensive, available in quantity, and with a high resale value on a poor world. Talos, one jump away, just happens to be poor.

At Talos, the Travellers sell the steel (hopefully at a profit). They find a load of petrochemicals; looking at their options, they see that Tarkine, one week away, will pay them well for such chemicals. At Tarkine, the cargo found might be polymers or advanced machine parts, which can be bought there for a low price, and sold for a profit on a nonindustrial world.



Here they have three options as to destination – Binges, Forine, or Flexos. To help them decide, the referee weights the odds by planting a rumour that a large number of polymers have been shipped from Flexos recently. This should encourage the Travellers to voyage there.

At Flexos, the promised cargo proves not to be available. There are, however, rumours of a rich strike in the Bowman system. There might also be a patron, who could charter the ship to carry supplies to the system to help outfit a mining expedition. In this way, the Travellers have made exactly the same voyage they would have made if they had been hired back at Mertactor, but they have made money while doing it and felt themselves in complete control of their destinies at all times, although the referee has, in reality, been directing every step of their travels.

The referee may use the trade and commerce rules in a judicious manner to produce a needed set of results. But what about those times when trade and commerce is interfering with normal adventuring? There are always possibilities...

THE FICKLE FINGER OF FATE

Travellers can lose their shirts by buying high and selling low, although, as we have seen, this can be minimised by sound planning. For instance, Travellers rarely go very wrong by hiring a good broker, since the broker adds to their profit while taking only a fraction of the sale price. This is always a good deal, so the Travellers will probably be making money if they are even a little bit smart about how they operate. The referee, however, has options also, being in control of the 'slings and arrows of outrageous fortune'. When the Travellers start ignoring adventure possibilities, or look like they might amass enough money to upset the campaign, then it is time for fate to take a hand.

Consider the various possibilities open to the referee. The Travellers might run across a crooked broker who swindles them out of a sizable amount of money: They might have most of their operating capital tied up in a cargo of gems when pirates show up to hijack the loot. They might knowingly or unknowingly violate a local customs regulation, causing confiscation of the cargo or even their ship. Their starship could suffer a malfunction or breakdown that costs them most of their ready capital to repair.

Such events can have many purposes. First, they can knock out unreasonably large profits and keep the Travellers struggling to earn a living. That is useful. Second, it helps keep the Travellers humble. Perhaps in the future they will not tie up all their assets into something that can vanish at a single stroke. Forcing them to diversify will keep them from snowballing assets quite so fast.

Finally, these options lead squarely back into the realm of adventuring, and that is where the action is. They may take it in mind to track down the crooked broker or pirates. The customs office may propose restoration of ship and cargo in exchange for completion of a hazardous mission. The breakdown may be at a particularly embarrassing moment when the results could be really drastic for all concerned. It is up to the referee to be the balance wheel for the flow of the campaign, creating obstacles with one hand and opportunities with the other.

It should never become a standard policy to take away the money the Travellers have earned without giving them a chance to do something about it. Travellers do not like to see their money vanish without being able to put up a fight. This can be good motivation to keep them involved in exciting adventures, and the act of recovering a lost investment may legitimately cut down profits to a manageable level.

MERCHANT PRINCES

There is a course of action that a referee should be willing to explore. This is to allow the Travellers to make the fortune they seek (and to keep it), but run things in such a way as to set the stage for adventures of a new

and unusual type. Here the object is to let the Travellers build up a small commercial concern of their own, and then run it.

As profits from small scale speculation begin to mount, the referee can urge an expansion in several ways. Government regulations might be used to encourage investment in an additional ship or two, or they might get a chance to acquire controlling interest in an entire shipping company. Now at this point it gets tricky, for the referee will have trouble controlling the campaign if the Travellers decide to split up and conduct trading in person. They should be encouraged, instead, to run the business from an established headquarters, and let individual ships make their own runs and turn profit. The referee can set up and administer the operations of a shipping line without a great deal of trouble, once it is established what worlds are being serviced, what ships are employed, what competitors are involved, and so forth. Each month, the Travellers can be presented with a profit and loss statement to let them know how their little company is doing.

The Travellers can be rewarded and still continue adventuring. This last bit is important – if you want to keep your Travellers interested, you must keep up their involvement in the campaign. Look to new horizons, offer new challenges, and your campaign will be a successful one.

GAMAAGIN KAASHUKIIN

Gamaagin Kaashukiin, heir to the Barony of Klavos on Adabicci/Lunion, served with distinction in the Imperial Navy. An honours graduate from the Lunion Naval Academy, she went on to flight school, serving several years as a fighter pilot aboard the frontier cruiser *Children of the Marches*. Eventually, she transferred to a line post, and held a variety of commands, mostly small ships in the 400-2,000 ton range.

Shortly before the Fifth Frontier War began, her father died, leaving her the Barony of Klavos. Gamaagin resigned her commission to go home to her new fief and oversee the transition. While there, she met, fell in love with, and became engaged to Simon, Baron Dacres.

However, only weeks before the scheduled wedding, as Dacres was returning to Adabicci from business on Tenalphi, the war broke out. The liner on which Dacres was travelling was ambushed by a Sword Worlds commerce raider, the 800-ton commerce raider *Excalibur*. Although the liner surrendered, Dacres attempted to organise a resistance to the boarding party, and was killed. Other passengers and crew were set adrift in a small boat; on being rescued, they passed on the story.

Gamaagin was horror-struck at the death of her fiancé. After days of mourning, still in shock over the incident, bitter thoughts of vengeance began to stir within her. She resolved to do everything in her power to avenge herself against the Sword Worlders who had ruined her life. Baroness Klavos decided to return to active duty.

To raise money for a ship, Gamaagin was forced to sell the Klavos fief (the family fortune was far from sufficient for her needs). No longer Baroness Klavos, she was (once again) Captain Kaashukiin, commanding a Broadsword-class mercenary cruiser purchased from a defunct mercenary outfit. Originally the *Boomerang*, the ship was re-named *Retribution* by Kaashukiin.

Using old contacts in the Imperial Navy, she arranged to have her ship and crew hired as mercenaries, and began a campaign of raiding along the Sword Worlds frontier.

The Travellers can run into Captain Kaashukiin in several ways. The most obvious is for her to become an employer or patron. *Retribution* is usually in need of crew members (former army and marine personnel for her marine complement, navy or scout veterans for the command crew, even merchants to act as prize agents, supply officers, etc.). Kaashukiin will also be interested in Travellers with their own vessel. Armed starships might be added to give her a flotilla, rather than a

Gamaagin Kaashukiin

Profession	Ex-Navy Captain
Age	38
Terms	5
Money	Cr60,000

Skills
Astrogation 2, Gun Combat (slug) 3, Leadership 2, Melee (blade) 2, Pilot (spacecraft) 4, Pilot (small craft) 3, Survival 1, Tactics (naval) 3, Vacc Suit 1

STR: 7 **INT**: 10
DEX: 9 **EDU**: 10
END: 8 **SOC**: 12

single ship; merchantmen might be approached to act as decoys to set up an ambush of Sword Worlds commerce raiders.

She can also be introduced, if the referee desires, as a potential employee. If *Retribution* were lost by accident or in combat but her captain survived, Kaashukiin might be willing to hire out as a pilot until she can recoup her losses and get a fresh chance to seek her goal. Kaashukiin is a skilled naval officer, highly competent, and very capable. She tends, however, to be blinded by her desire for vengeance. Her main goal in life is to find the *Excalibur*, and she will forsake all else to do this. Her crew, hired on for shares of the proceeds from prizes taken, do not like the occasional diversions to follow up a rumour of the enemy raider, but they have tolerated her eccentricities so far because her voyages pay well.

Adventures involving Kaashukiin's hunt for *Excalibur* are numerous. Ordinary operations (attacks on Sword World merchant shipping, raids against isolated outposts, deep penetrations of occupied territory, etc.) are a good source for excitement. Crew discontent at passing up some particularly lucrative prize could lead to a mutiny, with the Travellers having to choose between the two sides. The Travellers might be among the personnel assigned as prize crew to a captured ship, with the task of navigating it back to a friendly Class A starport for sale of ship and cargo, the bread-and-butter of this sort of operation. Such a voyage is, of course, fraught with danger.

Finally, there is the possibility of confronting *Excalibur*. Like *Retribution*, she is an 800-ton mercenary cruiser, and adventures could take the form of a cat and mouse chase across the stars with the advantage swinging from one ship to the other. By the time a final confrontation takes place, the Travellers could be very familiar with a ship that has become their nemesis.

MAINSTRIDER 300T

The 300T is a member of the Mainstrider family of vessels originally marketed by Enguezzi Interstellar, a now-defunct shipbuilding firm. The 300T designation refers to hull size and intended role; in this case general trade. Vessels in the Mainstrider family are still manufactured under a variety of licenses, with fees going to the liquidators of the original firm and families of key personnel. Unlicensed variants also appear from time to time, usually under a different designation.

The Mainstrider range was triumphantly marketed as 'striding along the mains, striding between the mains', a claim that was overstated but not entirely unjustified. The 300T has a capability of one parsec per jump, but can make two or three consecutive jumps without preparation or modification. This comes at the cost of a slight reduction in cargo capacity, but gives the ship great flexibility when operating between small clusters or in regions of low stellar density.

The Mainstrider 300T is a rugged and dependable transport, offering modest self-defence along with the flexibility to cross between mains when necessary. It cannot compete in terms of efficiency with a pure jump-1 cargo vessel, but can reach markets such a vessel could not. It is also readily customisable, allowing users to tailor their vessel to local conditions.

The 300T uses the characteristic hull form of most Mainstrider ships, said by some to resemble 'the ungodly child of a Gazelle-class close escort and a subsidised merchant'. When landed, the vessel sits on its secondary cargo units and short landing legs deployed from the sides of the forward lower hull. Entry to the ship is at the rear of the main cargo area for loading and at the front of the lower hull for personnel.

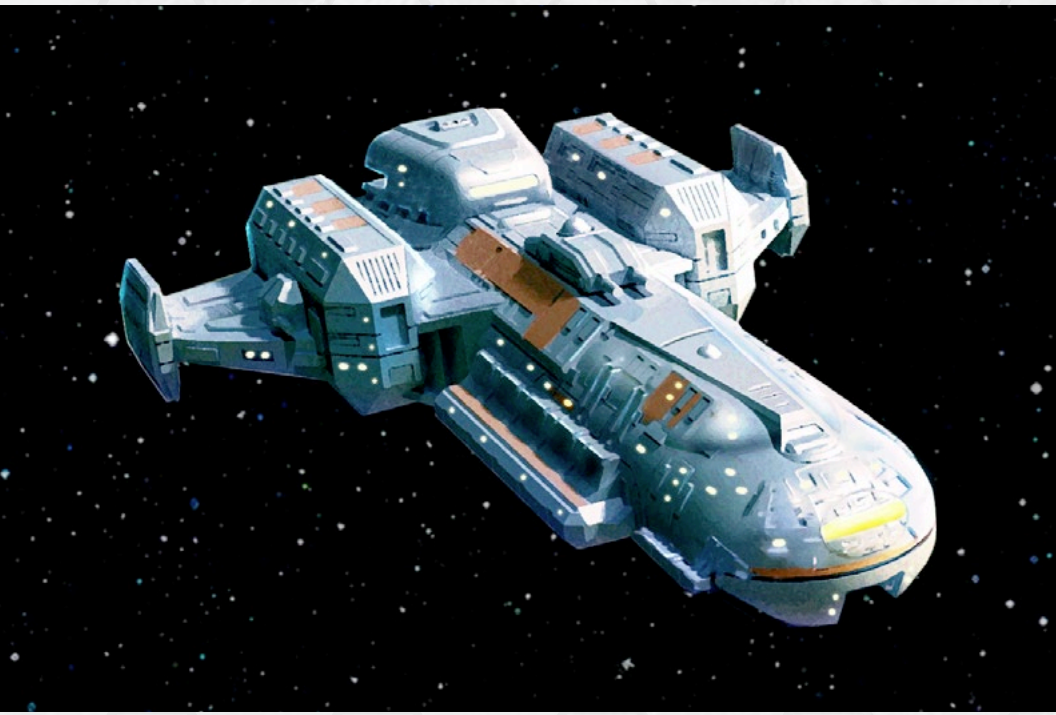
FUEL/CARGO SYSTEM

The key to the vessel's flexibility is its use of dual-purpose fuel/cargo containers. Part of the vessel's cargo capacity is of a standard design, using a dedicated fuel tank with sufficient capacity to support a one-parsec jump plus a few weeks of powerplant operation. The additional fuel required to make a second or third jump without refuelling is carried instead of cargo. Obviously, the 300T takes twice as long to cross a two-parsec gap as a dedicated jump-2 vessel but it costs less and can switch its auxiliary fuel tanks back to cargo space when operating on a jump-1 main or in a cluster.

Fuel/cargo containers are a permanent part of the vessel, and obviously must be suitably shaped to permit non-liquid cargo to be carried. It is

possible to retrofit cargo space or fuel tanks to dual-use containers, but this can be a problem on some vessels. Where fuel is carried in oddly-shaped tanks fitted around other components, or where the cargo bay is used to give access to other parts of the ship, conversion is not feasible. The pumping and containment systems for fuel also take up space that could otherwise be used for cargo, fuel and other systems. Thus most vessels that use fuel/cargo modules are normally designed from the outset to do so.

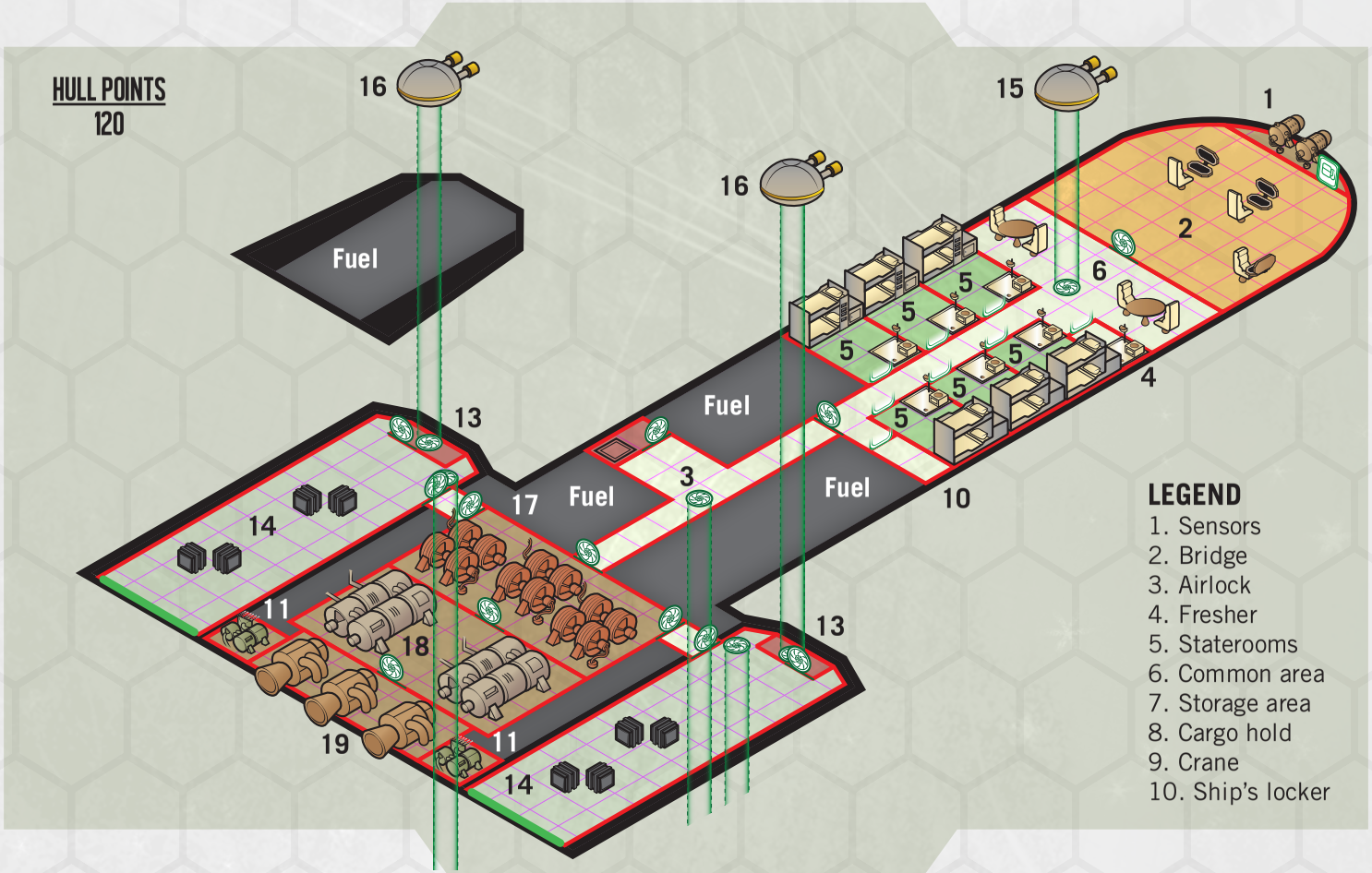
The fuel/cargo modules are self-contained and sealed by their own bulkheads. Swapping from fuel tankage to cargo space requires little more than flushing out the tanks to ensure no liquid hydrogen remains, then loading them up with cargo as needed. Each ton of capacity in a cargo/fuel container requires 0.05 tons of additional equipment and costs Cr5000 per ton. Thus a fuel/cargo container capable of carrying 100 tons takes up 105 tons of displacement and costs Cr500000.



CREW	RUNNING COSTS
Captain, Pilot, Astrogator, Engineer	**Maintenance Costs**: Cr6697/month **Purchase Costs**: MCr80.365

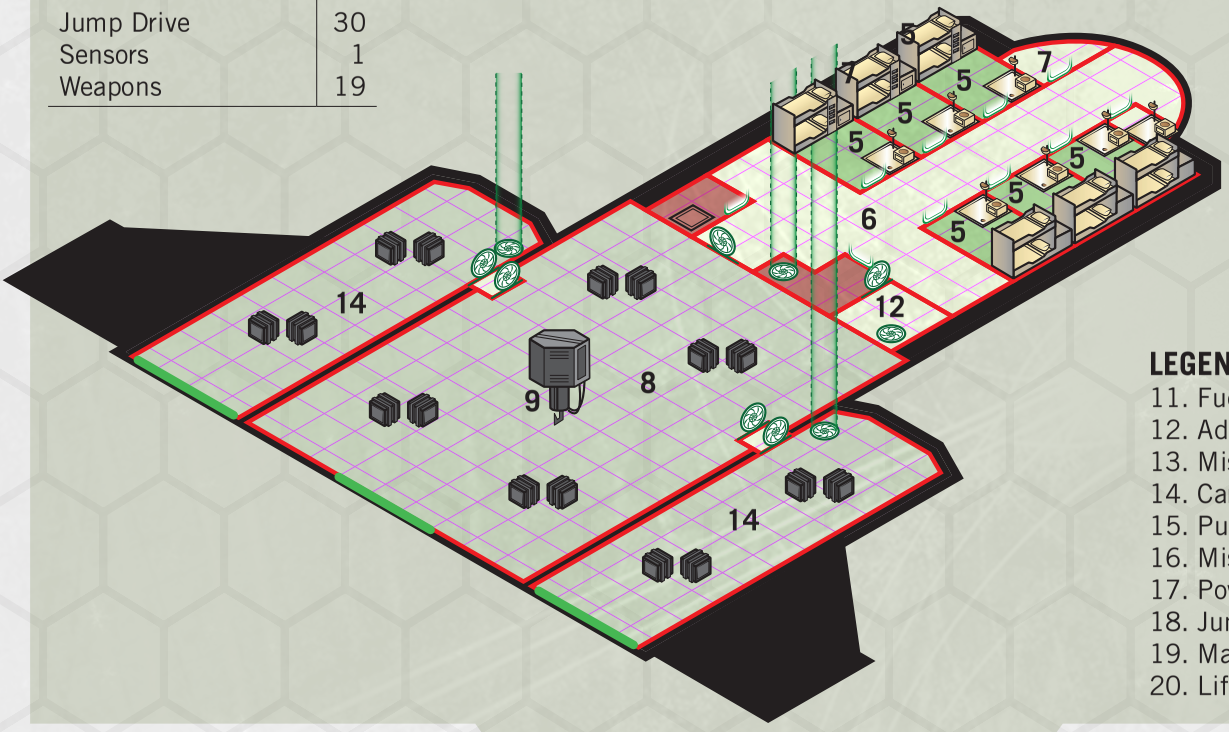
MAINSTRIDER 300T

TL12		TONS	COST (MCR)
Hull	300 tons, Standard	-	15
Armour	Crystalliron, Armour: 2	7.5	1.5
M-Drive	Thrust 2	6	12
J-Drive	Jump-1	12.5	18.75
Power Plant	Fusion (TL12), Power 180	12	12
Fuel Tanks	J-1, 16 weeks of operation	38	-
Bridge	Standard Bridge	20	1.5
Computer	Computer/15	-	2
Sensors	Civilian Grade	1	3
Weapons	Double Turret (pulse lasers)	1	0.5
	Double Turret (missile rack, beam laser) x2	2	1
Ammunition	Missile Storage (24 missiles)	2	-
Systems	Cargo Crane	3	3
	Fuel Scoop	-	1
	Fuel Processor (40 tons/day)	2	0.1
	Additional Airlock	2	0.2
	Cargo/Fuel Containers (30 tons) x2	63	0.315
Software	Library	-	-
	Manoeuvre/0	-	-
	Jump Control/1	-	0.1
Staterooms	Standard x12	48	6
Common Areas		24	2.4
Cargo		56	-
		Total	80.365


HULL POINTS
120
16
16
15
1
2
6
4
5
5
5
5
5
5
Fuel
Fuel
Fuel
Fuel
13
3
17
10
14
11
18
13
19
11
14
LEGEND
1. Sensors
2. Bridge
3. Airlock
4. Fresher
5. Staterooms
6. Common area
7. Storage area
8. Cargo hold
9. Crane
10. Ship's locker

POWER REQUIREMENTS

Basic Ship Systems	60
Manoeuvre Drive	60
Jump Drive	30
Sensors	1
Weapons	19



LEGEND

11. Fuel processor
12. Additional airlock
13. Missiles storage
14. Cargo/fuel containers
15. Pulse laser (dual turret)
16. Missile turret
17. Power plant
18. Jump drive
19. Manoeuvre drive
20. Lift and stairs

MAIN HULL (UPPER MAIN HULL)

The main hull of the 300T takes the form of a rounded-off and elongated cuboid, configured in a conventional manner. The bridge, electronics and computer systems are located forward, with the primary turret (mounting dual pulse lasers) accessed via a hatch in the ceiling of the 8-ton crew common area which is immediately aft of the bridge. Six crew cabins are aft of this area, beyond which lies the engineering area. Proportions are roughly equal between the forward section containing the 20-ton bridge plus 32-ton crew area, and the aft section containing 30.5 tons of drives and power plant. This is because the primary fuel tank, containing sufficient capacity for one jump-1 and sixteen weeks of operation, is wrapped around the drive spaces.

PASSENGER/CARGO AREA (LOWER MAIN HULL)

Along the ventral surface of the primary hull lies a slightly shorter secondary hull also taking the form of a round-fronted cuboid. The primary cargo area is at the rear of this segment, containing 56 tons of cargo stowage and the handling crane. The cargo bay can be used as a secondary airlock, and is often depressurised when carrying passengers for security reasons.

Forward of the cargo bay is the passenger area, containing six staterooms and a 16-ton common area which acts as a reception chamber when passengers board through the primary airlock located at the front of this hull section. Entry to the lower hull is by way of secure elevator and stairwell leading from a point between the cargo and passenger areas up into the main deck. This chamber also allows movement between the cargo and passenger areas when necessary.

CARGO/FUEL CONTAINERS (THE SADDLE)

The cargo/fuel containers sit at the rear of the main and lower hulls, one 30-ton container to each side. Each has a rounded front and a set of cargo doors facing rearwards, enabling the whole aft of the ship to be opened to receive cargo. The way the containers are streamlined into the main hull gives some observers the impression of a saddle; as a result this part of the ship is often referred to in that manner.

The cargo/fuel containers are two decks high, and streamlining at the front of the ‘saddle’ includes space for fuel scoops and processors. The bottom of each container is slightly lower than the main hull, allowing them to act as large feet when the ship is landed. Most of the ship’s weight rests on them, creating relatively low ground pressure, with additional support from lighter legs extended out and down from the lower main hull.

The containers can be accessed from the main cargo bay or engineering area when not carrying fuel. Atop each is a small bulge supporting a hardpoint and a one-ton missile magazine. These mounts carry a missile rack and beam laser as standard, giving a modest but broad self-defence capability. The turrets are normally remote controlled from the bridge but can be directly crewed. This requires crawling through a tight accessway along the top of the saddle, and is not popular with crewmembers assigned to maintain the equipment. The magazines – and the turrets themselves – are sometimes used as secure cargo storage or places to stash items beyond the reach of other crewmembers.

OPERATING CONSIDERATIONS

The 300T is a versatile and relatively comfortable ship to operate. Its primary economic advantage is its ability to move between mains and clusters, and operate at profit in regions of lower stellar density. Within a cluster or on a main the 300T is outperformed by the more common free trader and subsidised merchant, but where it can set up a run requiring a mix of one and two parsec jumps it can outperform a jump-2 ship in the long term – though it is slow by comparison.

PERFORMANCE

The performance of the 300T is modest but not disappointing given its price tag. Critics have claimed its minimal armour is a waste of tonnage – more or none would have given advantages. However, the designers countered this allegation by stating that the extra protection on the hull reduced long-term costs by decreasing flexing and protecting against micrometeorite damage. Crews of those vessels that actually came under fire would also tend to agree that any armour is better than no armour.

The ship's 2-g thrust pushes costs up compared to a minimal 'cargo van' vessel but does have advantages when operating in the frontier environment the 300T is best suited to. Quicker transits to and from orbit mean less chances to encounter trouble of the official and unofficial kind. A 300T cannot outrun a navy ship but may be able to evade a converted free trader long enough to enter jump. The higher thrust is also useful when doing odd jobs within a star system.

The low ground pressure resulting from having such big feet is useful at badly-maintained low-end starports or when conducting exploratory operations. Coupled with the ability to throw open the whole of the rear cargo area, this allows a 300T operator to use the ship as a flying bazaar if desired. However, the main advantage of this vessel over conventional ships is its ability to transit between stellar clusters and still operate at profit, and reach places other vessels in the same price range cannot.

VARIANTS

The standard configuration is designed for security, and passengers are confined to half the lower main hull with no access to critical systems. Some operators squeeze extra passengers into the crew staterooms, doubling up where necessary to free space. Others gut the passenger area and convert it into additional cargo space. This gives a maximum of 116 tons in the main cargo area and an additional 60 tons in the cargo/fuel containers.

One or both of the cargo/fuel containers can be converted to other functions if necessary. An upgunned 'expedient patrol/escort vessel' variant is available, using the cargo modules as hangars for a pair of light fighters each side. A planetary exploration variant was also marketed by Enguezzi Interstellar before they went bust, using part of the lower hull passenger area for laboratories and carrying vehicles instead of cargo. Unofficial variants have included prospecting ships, Q-ship pirate hunters and mobile headquarters for small business groups.

THE WAYS OF KUZU

I am Aslan, a warrior of Hoaawli'ukhtai, of the clan Afaikhiyoi. I was born on Kuzu (as humans say it), the place of coming, in the city of U'khai-of-the-Red-Dawn. As the third eldest of my family's sons, the shape of my way was directed from my earliest days; I took the Ah'ukhtai, the Vow of Heroes and rose through the ranks to become Leader of Clansmen of a mercenary battle group, Kaha a'huye, the brotherhood of the Rose-Tinged Waters. I have spent many years in the company of humans, and have a better understanding of their ways than most of my people.

There is an old and venerable saying that the true differences between peoples lie within. I am not human, but Aslan. The difference lies not in my form, but within my *eaia*, my inner self, my heart (as some humans might translate it). It long puzzled me, when I first met those of Humaniti, that some should expect me to act and react as they; that they should think me, in some twistedfang way, as a human in mask and furred costume.

It is certain that humans and Aslan will fare together in their quests across the galaxy, and understanding – and *taro* in full on both hands – is necessary if that faring is to be for good, and not ill. It was for this reason that a human friend, a *huweihwoweiy*, bade me write this, that understanding between our peoples be increased. My friend promised to give what I had written to a friend of his, who would make it known to large numbers of Humaniti by means of this Journal.

Perhaps humans must always label what they do not understand with concepts familiar to them (I am told this is called by your scholars 'anthropomorphisation', a word which I have never been able to pronounce). Upon hearing that Aslan 'meditate', they assume the custom has some religious significance, and assume the devotees to be somehow otherworldly, removed from the thoughts and strivings of existence.

Nothing could be farther from the truth.

THOUGHTS SHAPE THE WAY

Ai yourhai is the first precept, the guiding philosophy of all of my people. Its name might be translated roughly as 'thoughts shape the way', a concept that surrounds and nurtures all Aslan grounded in their mother culture. The symbol of *ai yourhai* is the Aslan hand with fighting claw extended. The Aslan's slashing fighting claw extends when it is needed without conscious thought, seemingly of its own volition, because he is what he is. The concept of *ai yourhai* states that the Aslan mind can be so ordered, so strengthened, that proper actions always spring from trained

and proper thinking. This, in fact, is the purpose of meditation among Aslan, to discipline and harden the mind, that actions – the strike of arm and extended claw – be automatic and unerring. This meditation – concentration in private for a time each day on deeds, writings, and litany chains of abstract thoughts – serves to sharpen concentration and senses, eliminate the tendency to distraction, and prepare the body to respond to whatever demands may be made upon it.

'Right thinking leads to right action' one human writer described it, and it would be hard to improve upon those words. It must be remembered, however, that the Aslan warrior does not dwell on the concept, but simply pursues it, for he does so knowing that thinking is not doing, as doing is not achieving.

THE COMPANY OF HEROES

Ukhtai eaiawehi – 'company of heroes' – is a difficult concept for humans, a belief that we are surrounded by a vast and unseen throng of those who have gone before. It is not, as so many human xenosophontologists insist, ancestor or spirit worship, or even a belief in ghosts (if I use that word properly), though it is likely the notion had its origin in such beliefs thousands of years ago. Aslan today do not believe in literal ghosts, but rather in the *eaia*, which might be translated as 'genius' or perhaps 'embodied ideal'. While the *eaia* cannot be said to have any actual being outside of its psychological reality within the Aslan mind, it is usually referred to as an external presence.

Ukhtai eaiawehi teaches us not to abandon our comrades under any circumstances, for we would be abandoned by the Unseen Company, an inner banishment more lonely, more rending than any mere physical exile. If one's *eaia* cannot take its place with the Great Company, then there is no place for it in the cosmos, and no place for that Aslan with his people.

THE SHRINE OF HEROES

The Shrine of Heroes is the closest thing to a place of worship for Aslan.

One can be found on nearly every ship, each military encampment, every place where Aslan are gathered; even each household has a family shrine for meditation and remembrance. The Shrine of Heroes is a quiet and private place for personal meditation on the deeds, words, and persons of Aslan heroes. Relics or images called *ahfa* are kept there; frequently 3D sight and sound recordings of special individuals can be projected there for inspiration and instruction.

The Shrine of Heroes is a beautiful place; close, silent, hung with tapestries or velvet curtains to exclude sound, and decorated with scenes of battle or triumph. It is never large, for meditations are expected to be private. Before battle, a military shrine will have a line of personnel waiting to use it for a precious few minutes, for it is thought that one's skill and battle

prowess is increased a thousand-fold if he enters battle with his mind cleared and sharpened by the discipline of meditation, his arm guided by the purpose of right thinking. Most Aslan carry their own *ahfa* in a small pouch or chest, to be used especially when a Shrine of Heroes is not available. *Ahfa* may be medallions, statuettes, scrolls (detailing heroic deeds), a tuft of plant material or lump of soil from a battlefield, anything which may serve as a focus of meditation by reminding the warrior of his own deeds and those of his family and clan. A warrior's *ahfa* are considered to be, if not secret, at least best kept private, things to be shared only with the closest of comrades.

WITH US IN SPIRIT

Aslan stress the purity of culture and philosophy which makes Aslan what they are. It is for this reason that Aslan culture has remained remarkably stable and unchanging across thousands of worlds where we have settled, even where we have been thrown into close contact with alien ideas and concepts. *Huweihwoweiy* might be translated as 'with us in spirit', and means that a person or a people act according to the highest ideals of our philosophy. It is not a title lightly bestowed, for it brings with it responsibility for a serious trust. The only higher honour is formal adoption into an Aslan clan group – a ceremony which occurs rarely, in extraordinary circumstances.

The term *huweihwoweiy* can be applied to any (Aslan or non-Aslan) who strive or suffer or share with Aslan as brothers, who help them in need,

who do not desert them in danger or trouble, who stand by them and willingly identify with them as of the People. *Huweihwoweiy* can join any groups families or clan prides, towns or cities, even worlds with common goals and a shared direction.

ANATHEMA

There are some things which no Aslan in his right mind would do. This is, perhaps, an oversimplification; Aslan are as diverse in their individual ways of thinking and behaviour as are humans. But these particular acts are rare among the Aslan because the way they think shapes the way they act – *Ai yourhai*.

Murder – that is, assassination without formal challenge; abandoning a comrade in danger or in need; exchanging the life of others for one's own safety; blackening a good name; running from a challenge; these are the deeds called *rukhta*, a word perhaps best translated as 'anathema' or 'cursed', although I have seen it rendered as 'crimes of honour' by some human writers.

There are several *hoaawli* or 'schools' of behaviour, which demand greater attention to duty, which place greater demands on the individual. Usually these are associated with warrior groups, and centre about a secret creed or oath known only to initiates. Most of these add additional *rukhta* to the common list; these may include such deeds as unneedful cruelty in a kill, unneedful challenge for personal satisfaction or lust for triumph, profaning one's own *ai* with unworthy thoughts, and a difficult word for humans, *rukhtiywe*.

When humans say that cowardice is unknown among the Aslan, they speak the truth. There literally is no word in any of our languages for this concept 'cowardice', which few of us understand perfectly, even those of us who have long associated with humans. The closest word in Aslan might be *rukhtiywe*; there is no easy counterpart in any human tongue with which I or my friend am familiar, but the word embodies the concept of denying one's own Aslanness – one's heritage, family, and self, and as such is certainly *rukhta*.

The bond of *huweihwoweiy* is shattered by *rukhta*, and many *hrurastea* (blood quests) are launched by individual Aslan seeking to clear their names of the taint of *rukht* by finding and challenging the actual doer of some dark deed. Modern customs do not admit to trial by death-challenge and combat, but the practice is a common one nonetheless. The idea of formal challenge, followed by potentially mortal combat, is deeply rooted in our society.

IT COMES

Tarohaka literally means 'the water that flows without being forced', and the philosophy of *taro* ('it comes') is considered a virtue among Aslan, for

patience can be the greatest weapon a hunter possesses. Humans have a proverb, 'all things come to him who waits', and this is one of the few human sayings fully understood by those of our people who hear it. *Taro* is sharpened by meditation, and is thought of as a constant struggle against the dark nature of Aslan prehistory and id. The ancient call within us calls for us to strike now, and kill – but *taro* counsels patience, for the perfect time will reveal itself, and the strike will be sure, and the kill clean.

This is a particularly powerful image for Aslan warriors; the imagery evoked for us is the patient flowing of a trickle of water, which in the course of years smooths jagged rocks to pebbles, and over eons carved out vast canyons. Many Aslan keep as *ahfa* a small stereograph of Ka'htesu or of some other spectacular canyon or water carved rock formation in the badlands of Kuzu, a reminder of the power of taro. Others find the same understanding in a waterworn pebble from the bank of a stream. The concept of adventuring – going forth as travellers in search of riches, recognition, victory – is well known to Aslan. Senior sons take upon themselves the title and land of family; it is left to younger sons to venture forth and carve new holdfasts from new worlds, and that carving is the stuff of adventure, the *ai* of new generations of heroes.

CONCLUSION

Many humans see in Aslan a likeness of a beast credited in your mythology with great strength, wisdom, and courage. Aslan see in humans a resemblance to a beast, common in our legends as a shrewd, clever trickster. Neither of us should be guided by myths. You who would be *huweihwoweiy* to your Aslan comrades, understand what drives them, understand their *eaia*, their personal heart of hearts, that they seem not strange, but *huweihwoweiy*-inhuman-terms; not human, but brothers.

- Leader-of-Clansmen Raearu'he KhaheakUkhtaikheHoaawlikhe Ukhtai

ROYAL HUNT

***Location**: Corben (E545455-8) Gazulin Subsector, Trojan Reach*

The Travellers are invited to take part in a 'royal hunt', which has become more ceremonial occasion than an actual hunt in recent years. As the procession wends its stately way through the countryside, it becomes apparent that there is indeed a hunt taking place – and the royal party are its prey.

CORBEN

Corben is a non-industrial world with a thin atmosphere containing a mild biological taint tolerable to most humans without a mask, providing they have built up an immunity or taken preventative medication. Corben is famous for its exotic wildlife and the valuable mineral deposits discovered in the Induial mountain region overlooking the main settlements in the fertile plains surrounding the Dweljahra River. The world is ruled by a group of hereditary nobles, each controlling an important technological function. Their overall leader takes the title Potenate.

The Potentate of Corben is not quite a king. He does not rule outright, but is highly influential among the other nobles and no collective agreement can be signed without his agreement. Thus the Potentate must be won over by any offworld industry hoping to operate on Corben. Until now, the world's

LIBRARY DATA

The following information is widely available through data terminals and standard encyclopaediae. It can be considered to be reasonably accurate as far as it goes, but simple common sense should indicate that the publicly available information is unlikely to be the whole story.

Yulyas: The yulya is a short-legged quadruped herbivore used on several worlds as a beast of burden. It is slow and has a jerky gait, making it unpopular as a riding animal where horses, kian, or other more comfortable creatures are available. However, yulyas are well suited to thin atmosphere worlds and can be encountered almost anywhere. They are generally docile but not very smart, and as a result can be spooked by things a brighter animal might recognise as harmless. A spooked yulya is rather comical, especially if it starts bucking and jumping sideways, but they are still heavy enough to be dangerous.

NAME	Yulya
HITS	34
SPEED	8 m
SKILLS	Survival 0
ATTACKS	Crush (2D)
TRAITS	Armour (+2), Large (+1)
BEHAVIOUR	Herbivore, Grazer

leaders have not been particularly receptive, but it is apparent that if the Potenate is in favour of a deal he will push it through despite opposition from his near-peers among the nobility. This is thought to have caused friction among the nobility, but the Potentate's position seems unassailable.

THE SITUATION

Corben's substantial deposits of topoline and athast, both useful in a number of industrial processes, have attracted the attention of Langhausen Industries, LIC, a major mercantile concern. Elas Dulandir, one of the principal partners at Langhausen, intends to negotiate an agreement giving the company a virtual monopoly over mineral rights on planet. The situation is time-critical at his end, but he believes he has an opportunity if he acts fast.

As a result, Dulandir has travelled light and fast to reach Corben, and now needs to find capable individuals to assist him. The Travellers are the best available, so Dulandir makes them an offer. This can be varied by the referee depending on the Travellers' circumstance, but will start at Cr15000 per Traveller for what should be about two months of routine work. He is looking for people who can act as bodyguards and general assistants, and more importantly who can give the impression that Dulandir is a powerful and capable individual by playing the role of an expert retinue. Actual knowledge of law, commerce or security operations is a bonus.

Dulandir explains that the Potentate of Corben, a powerful and wealthy individual, is known to be something of a dilettante. He is, however, honest, friendly, and apparently well-disposed towards the Langhausen offer. At present the Potentate is in the midst of plans for the annual royal hunt, the highlight of court life on Corben, and has invited Dulandir to accompany him on the expedition.

The hunt is little more than a leisurely journey up the Dweljahra river and into the foothills Langhausen is interested in mining. This will give Dulandir plenty of time to explain the benefits of the investment for Corben and persuade him whilst he is enjoying himself – while away from the influence of other nobles.

THE PLOT

Unbeknownst to Dulandir or the Travellers, the Potentate has been approached by representatives of a rival company, Nusku Trade, LIC. Their offer was not as good as that made by Dulandir, at least as far as the Potentate was concerned, and he turned it down. Undeterred, Nusku made contact with the Potentate's opponents and modified the deal to benefit them far more.

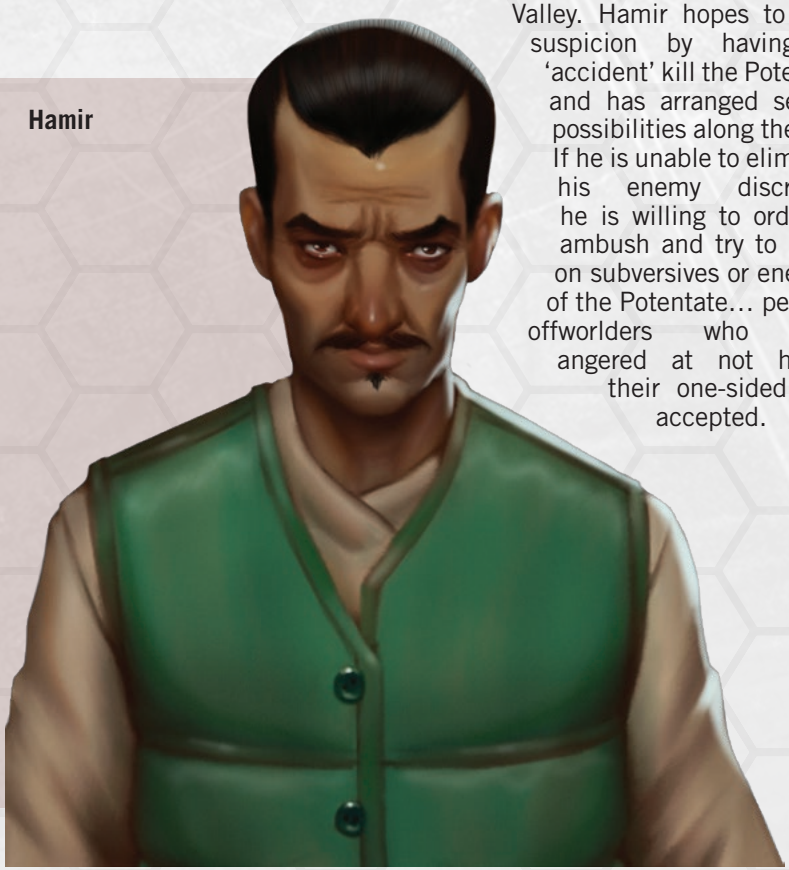
This alone might not have been enough, but the Potentate has offended a number of his fellow nobles and some individuals within his household. There is a small clique dedicated to removing him from power or passing the title of Potentate on to someone they can influence more easily. Chief among these is Hamir, a trusted royal advisor who has grown to hate the

Potentate. He has decided to eliminate him and the Langhausen party, placing the Potentate's idiot son on the throne as a puppet. He will then be the power behind the throne of a world enriched by the Nusku deal.

Others are opposed to any offworld deals and have been led to believe that removing or eliminating the Potentate will restore the status quo. How they would react upon finding they have swapped one offworld mining company for another is a matter for conjecture, but they can be dealt with when the time comes – indeed, they might be useful scapegoats. Thus although Hamir is the leader of the conspiracy, its members have varying motivations and levels of commitment. Those who would balk at killing their ruler (or anyone else) have been given supporting roles and assured that the plan is to arrange events that will discredit the Potentate during the hunt. Those committed to the cause have been assigned more direct roles.

Hamir has chosen the hunt as the perfect time to do away with his enemies. A number of his men are among the retainers of the Potentate, and more are trailing the royal party as it sets out into the jungles of the Dweljahra Valley. Hamir hopes to allay suspicion by having an 'accident' kill the Potenate, and has arranged several possibilities along the way. If he is unable to eliminate his enemy discreetly, he is willing to order an ambush and try to pin it on subversives or enemies of the Potentate… perhaps offworlders who were angered at not having their one-sided deal accepted.

Hamir



THE HUNT

The hunt is more a ceremonial camping trip than hunt, though occasionally a party will split off to chase quarry. Progress is slow and leisurely, with a camp set up by the advance party in late afternoon and often not struck until nearly noon. Evenings are spent feasting and carousing around open fires, consuming far more than the royal party can carry or hunt. A steady stream of yulya-drawn wagons plies back and forth to the city, bringing up yet more delicacies, and from time to time the Potentate will declare an extra-special feast, which is set up in advance by yet more wagon trains.

The whole hunting party tries to be as 'traditional' as possible, though this is carried out in a rather inconsistent manner. Small refrigeration units keep food fresh and wine chilled, and are carried in slings on the flanks of pack-yulyas or in 'traditional' wagons made from spring steel and lightweight plastics. Although everyone is sleeping on camp beds in large circular tents, the tent poles are telescopic and act as conduits for a heating and air conditioning system. In short, the hunt is a pretence and nothing more… but it is a pretence that must be taken very seriously. The Potentate (again, by tradition) must not see anything 'modern' and studiously fails to notice that his wine is being brought from an offworld chilling unit. This means that all hunting is done with 'traditional' weapons.

It is not clear whether spears and bows were ever used for hunting on Corben, but they must be used during this hunt. The Potentates bodyguards have modern handguns concealed under traditional garb, but anyone who tried to use a rifle would incur the grave displeasure of the Potentate and all his court. This would certainly derail any attempt to set up an investment deal. Dulandir is well aware of this and informs the Travellers ahead of time that they are not permitted to bring or use any offworld tech or modern weaponry. He personally is quite happy for them to do so, as long as they are extremely discreet, but his mission will be compromised if the Travellers are caught using their comms or carrying modern guns. He urges them to keep that in mind.

SETTING OFF

The hunt sets off with great ceremony, wending in a long line of yulyas towards the distant foothills. The Potentate and his immediate associates ride at the front, of course, and others are sometimes honoured to be invited up to ride with them for a time. Small parties break off, apparently whenever the whim takes them, and chase game with spears or dismount to shoot bows at the local wildlife. A few even shoot from horseback, but this is a difficult proposition given the gait of a yulya (DM-2 for any attack rolls).

Within a few days the routine of the hunt becomes apparent. A leisurely breakfast is followed by a few hours ride before camp is set up and the feasting begins. Anyone who wants to ride out and hunt something is

welcome to do so, though it appears very few kills are ever made. The side parties are as much a social event as the main hunt, and the Travellers will find some groups far more welcoming than others.

The whole business is rather bizarre; a royal court very seriously pretending to be low-tech barbarians whilst plodding slowly across the countryside. It is enjoyable for all that, and there is plenty of wine and good food to be had. From time to time Dulandir is honoured with an audience, and may take the Travellers with him. The Potentate also occasionally turns aside from the hunt, taking only his closest advisors and guards with him. The Travellers may deduce (but no-one will tell them, since that would violate the spirit of the hunt) that he is leaving to spend some time in the modern world, catching up on events and decisions that need to be made using a mobile command post kept well away from the hunt.

THE FIRST INCIDENT

The first attempt on the Potentate's life is perhaps the most subtle. After a week or two of uneventful progress, everyone is used to the routine. There have been occasional mild difficulties when terrain was unexpectedly tricky or parts of the procession slowed and bunched up, but for the most part everything has been quite genteel. The beginning of the first incident seems little different.

The column approaches a steep-sided ravine with a small stream at the bottom. Crossing it without falling off is a mildly tricky feat of what might be called yulyamanship, but not really very dangerous. Naturally, the route is scouted by the advance party and the Potentate has no reason to suspect any danger. This is an opportunity for him to show off, and he takes it.

Urging his mount into an ungainly gallop, the Potentate goes headlong at the ravine. His entourage follow at a discreet distance, ensuring everyone will be able to see his adept handling of the mount. He begins a rapid descent of the ravine side, clearly intending to splash dramatically through the stream and race up the far side. Then his mount shies at something, leaping sideways and bolting along the stream bed. The Potentate has lost his reins and is clinging to his saddle, unable to control his yulya.

The ravine runs parallel to the hunt's course, but is very steep as it passes the rest of the hunting party. It might be possible to coax a yulya into scrabbling down the side of the ravine to block the bolting animal at this point, but it would be dangerous. An alternative might be to scramble down on foot and try to catch the Potentate's fleeing yulya, though this too is hazardous.

If the Travellers do nothing, other members of the hunt will make an attempt to enact one or the other plan. They are not successful, and the Potentate's yulya races out of sight around a curve in the ravine. He eventually gets it under control and returns, wet and bruised, and more

importantly angry with his entourage for not helping. If the Travellers are successful, they are honoured for the next few days, riding with the Potentate until he tires of their company.

It is eventually established that the Potentate's mount shied at a branch in the water, perhaps fearing it was a snake. This sort of thing happens from time to time, though royal mounts are usually well trained. There is no easy way to find out, but in fact the yulya was fed a drug that made it skittish. This practice is normally used for fixing races and reasonably well known, but there is no reason to suspect foul play so a search of the camp is unlikely. The Travellers will not be permitted to carry one out, but can conduct their own discrete investigation. It leads back to a royal groom in the pay of Hamir.

DELAJABAR IN THE CAMP!

The delajabar is a vicious predator native to Corben, not dissimilar to a large puma. It is one of the more prestigious prey animals, not least since it is capable of killing a human. Hunting a delajabar with a bow is a dangerous business, though normally the predator will slink away from humans and disappear into the undergrowth.

One evening, as festivities are winding down, a whining snarl is heard from the direction of the Potentate's tent. Locals know the sound and gesture for everyone to freeze. Sure enough, a delajabar can be seen slinking towards the Potentate, almost as if it had singled him out. Bodyguards start to reach for their guns, but someone urgently whispers something about tradition. Some hesitate, others start trying to reach bows or knives. The beast slinks closer to the Potentate, as if seeking him out personally.

Killing the delajabar with a gun should not be hard, but it earns the Potentate's displeasure even if his life is saved. Killing it with a spear or knife would be a deed celebrated for years to come, and will again be rewarded with an audience. The beast can also be driven off by noise and confusion, especially accompanied by waving burning logs from the fire. However, if it flees it will track the hunting party and may attack someone or a yulya later in the trip.

Investigation yields a surprising find – the delajabar was in the potentate's tent! It seems to have ripped a panel out of the rear and managed to get in seeking food. Perhaps that is why it went after the Potentate rather than anyone else – it had his scent. Attacking a camp of humans so boldly is unusual behaviour for a delajabar, but this one seems half-starved. Exactly what it was doing in this area is a mystery though; nobody has seen any trace of the creatures for days.

In fact this animal was trained for use in a deniable assassination attempt, and placed in the tent to ambush the Potentate. It got a bit too hungry and broke out, going after him as it has been trained to do. There is no way to prove any of this but the circumstances are a little suspicious. The

NAME	Delajabar
HITS	30
SPEED	10 m
SKILLS	Athletics (dexterity) 1, Recon 2, Stealth 1, Survival 2
ATTACKS	Claws (2D)
TRAITS	Fast Metabolism (+1), Large (+1), Heightened Senses
BEHAVIOUR	Carnivore, Pouncer

Potentate, however, is dismissive. There is no reason to suppose anyone would have the means to set up such an incident, or a reason to.

THE ASSASSINATION ATTEMPT

After a few more days, the order reaches Hamir's men in the hunting party that they are to take direct action. A party splits off as usual to go hunting, curving away out of sight as many others have done. A little while later they re-appear, apparently racing after some game animal no-one else has spotted. Their chase brings them close to the Potentate, something of a breach of etiquette. However, he is good-natured about it, genially calling out to the hunters to tell him what they are chasing and where it is.

One of the hunters attempts a bowshot from yulyaback, a tricky feat that rarely succeeds. Sure enough the arrow goes off into the undergrowth. Someone jeers, and the shooter points vaguely where his arrow has gone. This should get everyone's attention, and whilst they are distracted a dismounted and concealed archer takes a shot at the Potentate. The arrow will hit on a straight check of 8+, unless the Travellers spot the archer and do something about it. In addition to its normal wound, the arrow carries a powerful poison which will disorientate the victim and may cause death due to respiratory complications. If nobody sees the archer it is possible that the matter will be ascribed to a stray shot by an over-excited hunter, but anyone looking the right way can see it is a deliberate attempt on the Potentate's life.

If the archer fails, the fake hunting group will spur towards the Potentate with spears and bows at the ready. They are not fanatics, and can be driven off if wounded or clearly overmatched, but there is every chance the Potentate will be stabbed or shot during this brief fight. Ideally, the assassins would like to pin the deed on the Travellers, but will settle for killing their enemy and escaping.

OUT IN THE WILDERNESS

The Travellers are faced with a difficult situation. They are out in the wilderness, possibly with a dead Potentate. At least some of the hunting party are traitors and everyone seems to suspect everyone else (including the Travellers) of wanting their leader dead.

The Travellers stand a real chance of being lynched or taken captive to answer for the assassination attempt – whether as a result of misunderstanding or a deliberate ploy on the part of Hamir's men. They may have to talk fast or take decisive action to save their skins, and could end up being prevented from offering life-saving medical treatment to the Potentate by well-meaning guards.

Just to further complicate matters, Hamir has set up a final attempt to kill the Potentate on the homeward route. A party armed with modern firearms – just hunting rifles and handguns, but guns all the same – has been scrambled from the city to escort the Potentate back home. If he is still alive they will truthfully say Hamir sent them and will try to get the Potentate and as few as possible of his people under their 'protection'. Once clear of the main hunt, they will kill everyone.

If that happens, the Travellers will be arrested by Hamir's men and evidence will be 'found' that they covertly brought along guns. The assassination will be pinned on the Travellers and Hamir will become de facto ruler of Corben. The best way to avoid being executed as regicides is to get a grateful Potentate home – and this will greatly facilitate Dulandir's negotiations as well. The situation has the potential to work out favourably for the Travellers… or very badly indeed.

>> GRAVITIC WEAPONS <<

Gravitic technology is one of the wonders of the universe. It propels starships, lifts immense payloads out of gravity wells and provides locomotion for air/rafts and other vehicles. Grav tech is also used in ballistic weaponry, picking up where gauss weapons and mass drivers leave off. Instead of the electromagnetic coils used in gauss weapons, grav weapons (or 'G guns' as they are sometimes called) employ a 'stack' of circular grav plates that press a round forward and inward, keeping it centred in the barrel as it accelerates to hypersonic speeds.

At TL14 and above, gravitic weapons use non-ferromagnetic ammunition, creating an unparalleled delivery system. The rifle and pistol magazines are actually 'smart-matter banks' that contain a dense and malleable polymer which forms ammunition of various masses on the fly. This allows the damage of the weapon to be minutely adjusted from a minimum of one point to the maximum listed value of each weapon. For example, a gravitic rifle can be set to deliver damage values of one point, 1D+3, 2D+3, 3D+3 or the maximum 4D+3. The AP trait can also be adjusted upward or downward by altering the shape and mass distribution of each round.

Gravitic weapons are difficult to come by despite the advantages they provide. They have never been widely adopted in the field due to their much higher cost, maintenance requirements, and high non-operational weight. The stock, action and barrel of a grav weapon is made of denser, heavier materials than other weapon systems and a battery is required to charge the grav plates. When in use, the weight of the weapon is compensated by gravitics, giving it a nominal weight and heft, but when powered down and in storage, grav weapons are nearly twice their operational weight.

The Imperial Army and Marines have historically engaged in a policy of making the jump from gauss to high-energy weapons and have rarely made large investments in gravitic weapons as a go-between. Nevertheless, they remain a viable alternative that bridges the gap.

Gravitic Squad Automatic Weapon (SAW)

The gravitic SAW, first seen at TL13, is the first development in the class. While more expensive than a comparable gauss weapon, it uses higher calibre ammunition and can deliver a variety of payloads. Default ammunition is a 10mm armour-piercing round, but the weapon can handle rounds of up to 14mm. The grav SAW is a bulky weapon typically mounted on a bipod, tripod or vehicle mount. Battery life is 12 hours.

Weapon	TL	Range	Damage	Kg	Cost
Gravitic SAW 10mm ammo	13	600	4D	15 (8)	Cr12500
Gravitic SAW 14mm ammo	13	500	5D	19 (10)	Cr12500

Weapon	Magazine	Magazine Cost	Traits
Gravitic SAW 10mm ammo	200	Cr300	AP 4, Auto 4, Scope, Bulky, Zero-G
Gravitic SAW 14mm ammo	160	Cr400	AP 4, Auto 3, Scope, Very Bulky, Zero-G

Gravitic Rifle

The gravitic rifle is considered by some to be the ultimate infantry weapon. It is considerably more expensive than a gauss rifle, making it less appealing to procurement officers, but is seen in the field from time to time as a specialty weapon. It comes standard with an on-board computer/1 and specialised Agent program that allows the use of vocal and sub-vocal commands to adjust the weapon's damage and AP trait. Weapon adjustments require a minor action during combat. Battery life is 24 hours.

Weapon	TL	Range	Damage	Kg	Cost
Gravitic Rifle	14	750	4D+3	8 (3.5)	Cr7500

Weapon	Magazine	Magazine Cost	Traits
Gravitic Rifle	60	120	AP 4, Auto 3, Scope, Zero-G

Gravitic Pistol

The gravitic pistol employs the same technology as its peers and offers similar performance to a gauss pistol. However, the addition of the on-board computer/1, Agent program and the Zero-G trait make it a cut above most pistols. Battery life is 48 hours.

Weapon	TL	Range	Damage	Kg	Cost
Gravitic Pistol	15	30	3D+3	5 (1.5)	Cr3500

Weapon	Magazine	Magazine Cost	Traits
Gravitic Pistol	40	80	AP 3, Auto 2, Zero-G

Gravitic Squad Aurtomatic Weapon

Gravitic Rifle

Gravitic Pistol

TRAVELLER AND THE REFEREE

Traveller referees are a curious phenomenon indeed. Possessed of omnipotent and godlike powers over a universe of their own creation, they are yet a victim of the Travellers who surround them, continually threatened by varied responses (or lack thereof) to their actions and rulings. This unstable situation can be an unsettling experience, for it is upon the referee's success or failure that everyone's enjoyment of the game hinges... and they must walk a tightrope in order to avoid the extremes of undue harshness or dull leniency. It is necessary to take the Travellers in a direction that has already been mapped out, but in such a way as to make the game exciting, challenging, and enjoyable. This is the mark of a good referee.

While the generation of a universe and the characters that inhabit it is an important part of the referee's duties, the chores faced do not end with the final pre-game dice-roll. They are only just beginning! As the Travellers prepare themselves to venture forth, the referee must begin the delicate task of creating, balancing, and conducting an adventure. And before this happens, the referee must keep several points in mind.

First, the adventure must be suitable. An ex-army colonel should not be placed in a situation that requires the Pilot skill... and should not be offered a spaceship as their reward... unless there are other Travellers in the group with the skills required.

For this reason, if for no other, Travellers should be created before the adventure is mapped out. This saves on the number of ludicrously inappropriate adventures the referee ends up running. The wants, needs, and desires of the Travellers should play some part in determining the suitability of the adventure, but those needs are not paramount, and should not all be filled at once... or the Travellers will have no reason to adventure later on. As a matter of fact, it will often be necessary to go against the Travellers when their objectives become incompatible with running an exciting game. The Traveller who does not want to get involved will have to be nudged – perhaps by being kidnapped or marooned by accident. And the Traveller who is too ambitious should meet with all sorts of trouble, from accidents to government interference or any other form of frustration that will keep them off the track of wanting to be Galactic Overlord after the first week. Hopefully these methods will steer the Traveller back to the path the referee first sent them down.

Another consideration is the reward. As mentioned before, it should be appropriate, or the Traveller will be foolish to accept it. The prospect (which may not all be fulfilled) of a gain large enough to interest the Traveller must exist, unless the Traveller has been established as the sort of person who

wants to go out and adventure just for the fun of it. But the Traveller with millions of Credits is not likely to risk life and limb for a paltry hundred thousand or so without good cause. If the reward the referee has in mind does not interest a Traveller (and the referee does not want to raise it) then build in other motivations. The Traveller should find his starship impounded, or a price on their head... anything that might threaten them, but which the adventure will change or correct. Motivation is truly an important part of the referee's job; it keeps the game moving even when Travellers hesitate about being involved in some particular action.

Most important of all, however, is the need to balance complexity in the adventure. This is more difficult in Traveller than fantasy roleplaying games, as they arbitrarily provide levels of skill and levels of enemies which are challenging at each degree of difficulty while not presenting impossibilities. In Traveller, the referee must do their own balancing, but a little common sense can usually supply most of what is needed.

The Travellers can almost always supply many of the clues. If the referee knows that they will need to have the Electronics (computer) skill to solve the problem presented, then the referee should make sure one of the Travellers has the skill. If none do, they should have the chance to find out what they need to know before they are actually confronted with the problem, giving them time to hire someone with the skill, perhaps.

Rumours are the key way of balancing in this fashion. While many will be red herrings designed to trap or confuse the Travellers, they should be set up so that astute Travellers will know what to prepare for. Rumours can channel the course of play into an area the referee desires; they can discourage Travellers who want to try something the referee is not ready for, and they are ideal clues that should lead Travellers to the solutions to their problems.

Other ways of balancing play can come through non-player characters, through which the referee can inject knowledge or skills not available to

the Travellers. The descriptive powers of the referee can also be used to balance a situation, by giving verbal clues to what lies ahead based on observations by the Travellers.

If all else fails, though, the referee has one last recourse. Direct and godlike intervention, in the form of good or bad fortune, can ensure the complexity of the scenario will always challenge the Travellers. The Traveller who has proven totally unprepared can get lucky and escape from almost certain disaster; the Travellers who go out loaded down with enough gear to take on the Imperial Death Star might find a streak of ill fortune disrupting 'the best laid plans of mice and men'.

As an example, suppose a party of Travellers has armed themselves with every imaginable weapon, plus grav belts and combat armour. Their opponents are numerous, but uncivilised, barbarians. There is no danger to the Travellers, who can fly out of reach and slaughter natives left and right. This kind of situation might satisfy a few closet psychopaths, but it will not be much of a fun or balanced game.

But the referee can reach forth, and behold! Ill fortune strikes! A poorly maintained grav belt fails, and its owner drops gently (or not so gently) to ground, into the midst of a group of very frustrated and rude natives. Now a contest that was essentially target practice takes on a new and vivid interest for all concerned, especially the Traveller who suffered the misfortune! There are other considerations the Travellers must take into account, now, as they continue play. Do they rescue the victim? Negotiate? Hope they escape? Go on their way? Little incidents like this can be used to make the adventure flow smoothly, with everyone finding a challenge facing them no matter how good, how well-equipped, or careful they have been.

This power of the referee can be used as much or as little as necessary. Often the referee can stall the Travellers from voyaging toward a point not yet prepared with exactly this kind of judicious intervention. Accidents, rumours, other missions, all can take place along the route the Travellers are following. These delays give the referee time to get their act together and prepare for the big one... whatever that may be. But be careful! The Travellers should be allowed to do some of the things they desire or they will lose interest.

Of course there is a final remedy for the recalcitrant Traveller who will not see eye to eye with what the referee has decreed. Since the referee is, after all, playing a role also (a particularly powerful character... God) they have certain options which presented below for use as needed.

- A giant hand can reach out and grab their starship.
- An asteroid can plunge into the ship, killing all aboard.
- They can fall into a black hole.
- Or, for the traditionalist among you, try hitting 'em with a lighting bolt! Just so long as you have a good time.

SENSOR OPERATIONS

Travellers can decide what sort of sensor package their vessel will carry, and so what DMs it grants on checks to detect and analyse contacts. One perfectly viable approach to shipboard sensor operations is to say the sensors can detect whatever the plot needs them to, and the DM they grant indicates how well they do that. This is not very realistic, however. This article presents an approach to sensor operations in Traveller that is more grounded in science.

All sensors fall into one of two types; active and passive, and each can only detect certain things. This has a number of implications when one vessel has greatly superior sensor equipment to another.

Passive Sensors are receivers only. The Mk I Eyeball is an example of a passive sensor. It receives light and forms images of what is illuminated, but cannot emit light of its own. The main advantage of passive sensors is that they do not give away the user's presence and generally require little power.

Active Sensors send out a signal of some kind and detect what bounces back. A person in a dark room with a flashlight is using the same detection equipment – eyeballs – as someone hiding in the corner, but their light source will be obvious even if it is not illuminating a target.

For civilian ships operating in a safe environment there is no reason not to run with sensors active at all times, but a ship that wants to hide must reduce its emissions or eliminate them entirely. A ship actively searching with sensors will reveal its presence to one using passive sensors from further away than active detection can be accomplished, but sometimes this is necessary. On other occasions, warships may sneak about a system using only passive sensors, hoping to avoid detection long enough to gain an advantageous firing position.

Whenever a vessel uses an active sensor package it will automatically be detected by every vessel running sensors of the same kind. For example, a ship that turns on its radar will be detected by all other ships in range that have radar receivers. A vessel that does not have radar (which would be unusual, to say the least) will not detect active radar. This can be important when a high-tech ship has a sensor type not present on a lesser one. Clever crews might use an active sensor not likely to be detected.

In the Third Imperium universe there is no device that can transmit information faster than light. Sensor equipment thus uses speed-of-light emissions and detects them, meaning that a very distant contact will have moved by the time sensor data arrives. If a ship 22 light-seconds away is being tracked with radar, what is actually being plotted is its position 22 seconds in the past. Tactical plots usually include a prediction of likely current locations based on the contact's known performance parameters. Of course, a vessel may change course or speed during this time so the prediction becomes more vague as distance increases.

SENSOR PACKAGES

All starship sensor packages contain passive optical and thermal sensors. These are cameras mounted on the vessel which create separate or composite images based on visible light and infrared radiation. A passive optical/thermal sensor package can detect objects that emit heat (such as stars and starships) with relative ease, but colder, darker objects are much more difficult to spot. In the inner system, where there is thermal and visible-spectrum radiation from the star(s), objects may be warmed or illuminated. Further out the only way to spot moons or planetoids – even planets – is when they pass in front of another light source such as a distant star.

The sensor package fitted to a ship dictates what it can and cannot detect, and also some additional capabilities.

The capabilities of sensor suites increase with complexity and Tech Level. The radar fitted as part of a basic sensor package is a simple navigational set with poor resolution and little ability to determine details of a target.

Sensor Packages

Package	Sensors
Basic	Radar, Lidar
Civilian	Radar, Lidar
Military	Radar, Lidar
Improved	Radar, Lidar, Densitometer
Advanced	Radar, Lidar, Densitometer, Neural Activity Sensor

On the other hand, a military radar set can provide much better resolution, aiding identification and tracking of contacts.

All sensor packages have a base range within which they are fully effective. DM-1 applies to all Electronics (sensors) checks for every range band outside the system's base range.

Radar indicates the vessel has the capability to emit and detect radio-frequency pulses. This includes communications transmissions – ships can be detected from radio chatter even if it cannot be decrypted. Radar can be used to detect vessels and obstructions, and provides basic information on a contact such as general size and shape.

Lidar is a laser-based system which is not powerful enough to damage a target. Lidar provides extremely accurate rangefinding and precise scans of objects at short distances.

Densitometers are gravity-based sensors which provide a detailed map of mass and space within an object. A densitometer can 'see inside' a ship in a way that radar cannot, though it can only map solid objects by shape and density. This generally gives a fairly clear picture of what is inside a vessel or planetoid, but can be misleading.

Neural Activity Sensors are passive. They have no active emissions but detect the presence and general nature of brain activity. This gives an indication of the number of crew or passengers and any animals present, and is the only way to 'scan for life signs' in the Third Imperium universe.

Jammers are devices intended to blind enemy sensors by producing powerful emissions in the same spectrum. A vessel with jammers can conduct electronic warfare operations against any sensor type it carries. For example, a military sensor pack can jam radar and lidar but has no effect against a densitometer scan.

EMCON is an acronym for Emissions Control. A ship using EMCON has a reduced signature and is harder to detect, but also uses its own active sensors in short pulses or at lower power settings. EMCON, when active,

Package	Other Capabilities	DM	Tons	Cost	Base Range
Basic	-	-4	-	-	Short
Civilian	-	-2	1	MCr3	Medium
Military	Jammers, EMCON	0	2	MCr4.1	Long
Improved	Jammers, EMCON	+1	3	MCr4.3	Very Long
Advanced	Jammers, Extreme EMCON	+2	5	MCr5.3	Distant

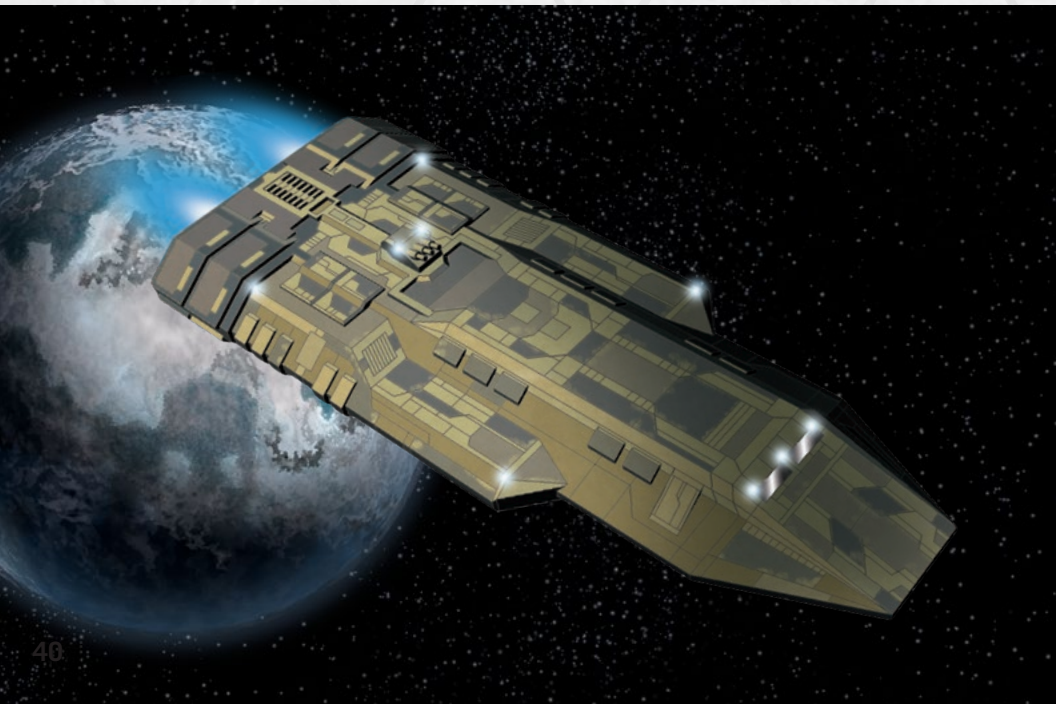
imposes DM-1 to attempts to detect the ship and DM-2 on its own checks using active sensors. Extreme EMCON imposes DM-2 on attempts to detect the ship and DM-1 on its own active sensors.

LPI, or Low-Probability-of-Intercept is a modification to sensors that enables them to operate normally or at a lower-powered setting less likely to give the vessel's position away. LPI sensors cost twice as much as the standard version and impose DM-1 on attempts to detect a vessel by its sensor emissions. A vessel with multiple sensor types can choose not to use advanced systems that LIP (or ELPI) is not available for, gaining the benefit of reduced detectability at the cost of only having data from radar and standard thermal/optical systems.

ELPI, or Extremely Low-Probability-of-Intercept is a modification available two Tech Levels higher than the sensor's introduction Tech Level. ELPI sensors impose DM-3 to detect the ship by its emissions. A vessel that has ELPI (or LPI) sensors must pay the full cost even if the (E)LPI capability is not available for some of its advanced sensors.

LPI

System	LPI Available	ELPI Available
Radar	TL9	TL10
LIDAR	TL9	TL10
Densitometer	TL13	TL15
Neural Activity Scanner	Sensor is passive only	



USING SENSORS

The sensor suite aboard a ship combines data from all sources to build a picture of its surroundings. When a vessel is scanned, the sensor suite maps its size and shape, internal structure if a densitometer is available, water and air leakage, thermal outlines, and electromagnetic effects from circuitry. The more data is available, the clearer the picture. This means that sometimes a ship might be misidentified at first. A sensor contact may be presented to the crew as a vague 200-ton blip, then a rough shape identified at a low level of confidence as a 200-ton free trader. Some time later it is re-identified as a far trader, this time with a high level of confidence.

It is not possible to 'scan for life signs' in the manner of many TV shows without a neural activity sensor. However, a ship that has power and heat inside is a strong indication that it may have a live crew. One that is venting air and water with fragments of debris is clearly in trouble, and one that is cold and unpowered is probably dead or lying doggo. The referee can use this inability to get 100% effective information to great dramatic effect; Travellers cannot be sure a ship is uncrewed and dead. They can assist their search of the wreck for survivors by looking for warm areas or air leaks, but cannot be sure exactly what lies beyond that bulkhead.

Stage 1: Detection

The first stage is to detect a contact, which will initially be nothing more than a blip on the display. To detect an object requires an Average (8+) Sensors check, with DMs applying:

Sensors in Passive mode only:	-2

Target Ship

EMCON in operation:	-2
Extreme EMCON in operation:	-3

Scanning Ship

EMCON in operation:	-1
Extreme EMCON in operation:	-2
Per range band beyond Base Range:	-1
Vessel is charging a jump drive:	+2 x Jump score
Vessel is manoeuvring under power:	+1 per Thrust applied
Vessel is using jammers:	+8

A vessel using active sensors will automatically be detected at one range band less than the detecting vessel's Base Range, and one using jammers will be automatically detected at Base Range; a Civilian sensor package

(Base Range Medium) will automatically detect a craft using active sensors at Short range and one using jammers at Medium range.

Stage 2: Track and Scan

Once an object is detected, it will be tracked until contact is lost. This can happen if sensor operations are disrupted or the contact passes behind some obstruction. A vessel that enters EMCON or otherwise reduces its signature and changes course, even slightly, requires a new Electronics (sensors) check to maintain contact.

Scanning a contact means trying to establish exactly what it is, its capabilities and condition. This requires an Average (8+) Electronics (sensors) check, with DM-4 if the 'scan' attempt is being made with passive sensors only. Scanning can only be performed within the sensor suite's Base Range.

An additional DM-4 applies if the target is jamming the scan attempt.

A new scan can be made every 1D rounds, adding the total Effect gained until the scanning crew are satisfied with the information they have obtained.

The Effect of this check indicates what level of information is available, as shown on the Scanning table.

Scanning

Total Effect	Information
0-	The contact remains a vague blip
1-2	Rough shape and estimate of tonnage
3-4	Outline and tonnage, good level of confidence
5-6	Ship side, class and probable identity
7+	Specific data, such as damage status and vessel's exact identity

Additional Sensor Tasks

It is often possible to determine a vessel's intentions by its emissions. The Contact Actions table shows what will be detected with an appropriate Electronics (sensors) check. If the check is failed, the scanning ship has no indication anything is about to happen. An Effect of 0-2 gives a vague warning such as 'increased power to manoeuvre drive' whilst an Effect of 3+ will give the scanning vessel a very clear indication of the target ship's intentions. The level of the Electronics (sensors) check

varies depending on how obvious the action is – which usually comes down to how much power it requires.

Contact Actions

Action	Level of Difficulty
Contact is preparing to make a violent manoeuvre or accelerate hard	Average (8+)
Contact is preparing to jump	Routine (6+)
Contact is powering up weapons	Difficult (10+)
Contact is conducting a detailed scan	Difficult (10+)
Contact is tracking a target with weapon-guidance sensors	Average (8+)

DM-4 applies if the target is actively jamming sensors
DM-2 applies if the scanning vessel is using passive sensors only

An Effect of 3+ will provide more information, such as which weapons are being locked on or what sort of manoeuvre the contact vessel is about to make.

SENSOR SCREEN DISPENSER

The sensor screen dispenser resembles a standard sandcaster canister and is designed to be fired from any sandcaster without modification. When launched the canister spins, flinging out submunitions which burst within seconds to create a large cloud of self-igniting radar-reflective material. This is effectively a smokescreen in space; one that is opaque to radar and optical sensors, and enough to blind thermal detectors. One canister is sufficient to conceal 100 tons of vessel; multiple canisters can be used to cover larger ships.

A sensor screen will cause radar, lidar and optical/thermal sensors to lose their lock on the launching vessel. The screen dissipates in D3 rounds, at which time the contact can be re-acquired – if the ship expends any Thrust it can also be re-acquired as it moves away from the screen.

Screen dispensers are most commonly used to break a sensor lock and allow a vessel to engage EMCON before trying to slip away. The screen is not effective against missiles already at attack range, but can prevent an enemy ship from providing affective targeting information to its missile salvo.

Each dispenser canister costs Cr10000 and takes up the same space as a standard sandcaster canister.

THE HLANSSAI

The Hlanssai are a humanoid minor race originating in the Vargr Extents. Today they can be encountered throughout much of the Imperium, though they are uncommon far to rimward of the Imperial core. The Hlanssai are widely admired for their artistic talents, grace, and dexterity, but many members of other races distrust the Hlanssai because of their – justified – reputation for emotional instability.

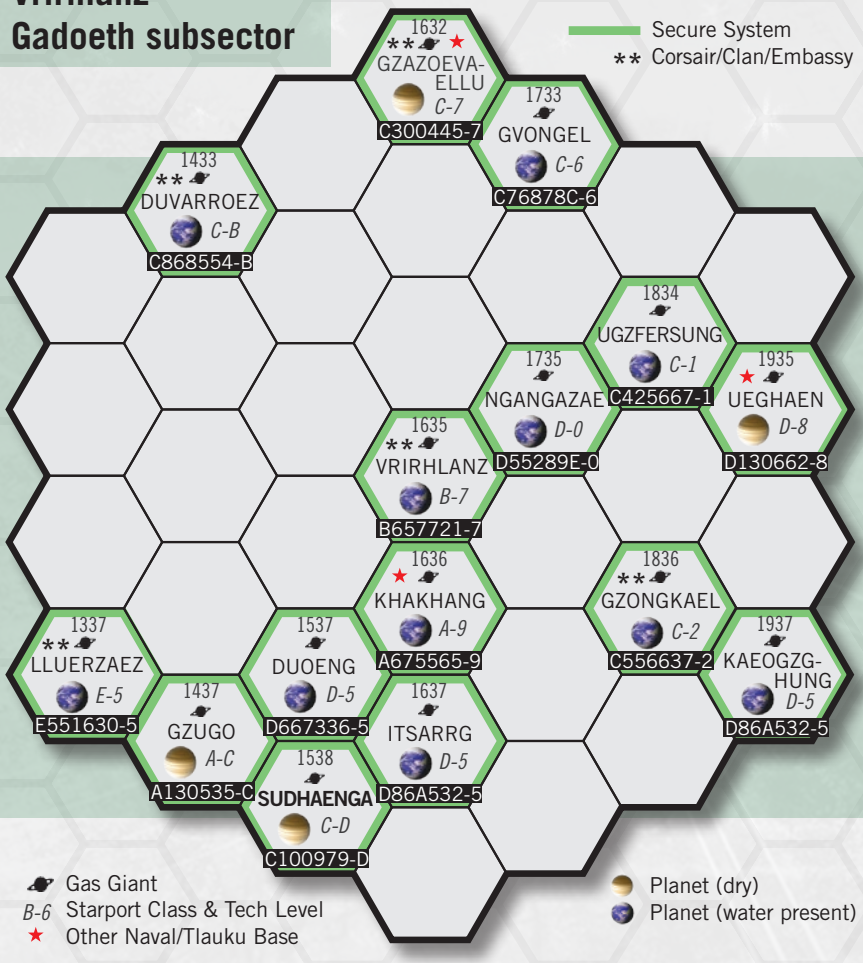
Hlanssai are tall, averaging about 2.1 metres, but very light and slender of build, rarely massing more than 55-60 kg. The race is homeothermic, bisexual, and viviparous, producing one or two young after an eight-month gestation period. Hlanssai bodies are half covered with a silky, glossy yellow fur, and they seldom bother with clothing. Their most striking visual feature is the head, with its two large eyes and two even larger ears. The former are sensitive to a range of frequencies extending into the ultraviolet; the external flaps of the latter serve to detect thermal radiation and air currents with considerable efficiency, as well as focussing sound into a highly efficient inner ear. The race's hands have three three-jointed fingers and a stubby, unjointed 'thumb' each; their feet are similar, and can provide grip, especially when climbing.

HISTORY

The Hlanssai evolved on Vrirhlanz, in the Vargr Extents (B657721-7), a planet not wholly unlike Terra. Their ancestors were intermittent/gatherer types, adapted for a semi-nocturnal existence in moderately forested areas. This species already possessed a fair level of intelligence when tectonic shifts created a land bridge between two continents, allowing a large number of different, and frequently dangerous, species to invade the proto-Hlanssai's home environment.

The resulting evolutionary pressure encouraged flexible, intelligent behaviour, but this was only part of the result. New dangers confronting the Hlanssai demanded the ability to perceive situations quickly and in detail, and an awareness of all possible subtleties. The race already possessed the acute senses of the sometime night-dweller; evolution now enhanced these to exceptional levels. Hlanssai intelligence was the product of the need to analyse and comprehend sensory inputs; Hlanssai psychology is therefore oriented overwhelmingly towards immediate sensory awareness and possible responses. Likewise, the species' philosophies are sensualistic, frequently dismissive of the long term, and notoriously sybaritic and hedonistic.

Vrirhlanz Gadoeth subsector



A Hlanssai will usually respond to a situation as it occurs with little regard to long-term consequences, which often means their reactions are dramatic or even excessive. This is not to say that Hlanssai are psychopathic or vicious; they are capable of personal loyalty and affection, and their capacity for empathy is quite phenomenal, but enduring trust is alien to them.

SOCIETY

Hlanssai culture had achieved a kind of static equilibrium when the race was first contacted by the Vargr, and has changed only slightly since. Hlanssai psychology dictates that complex, rigid social systems and long-range planning are impossible, and even familial or tribal bonds are weak. Balancing this, the species' tendency towards cooperation in the face of immediate danger is powerful. The result is a system of administration by

self-interested cliques and participant democracy which appears anarchic to most outsiders but is entirely acceptable to most Hlanssai. A Hlanssai who finds the current situation unacceptable usually either forms their own clique or takes to demagogic politics.

Personal violence and theft are quite common, but represent a sufficient immediate personal danger to trigger the cooperation instinct. Larger scale organisation for long-term aims is rare, only occurring when unusually capable and charismatic Hlanssai perceive a particularly strong racial need and persuade others to work together to meet it.

Normally, the Vargr have poor relations with minor races within their territory, but the Hlanssai are an exception. The species' immense versatility, subtlety, and talent for empathy enables them to persuade others of their usefulness, and Hlanssai social scientists, servants, traders, and spies have travelled virtually everywhere that the Vargr have gone – in some cases beyond.

The Vargr generally regard the Hlanssai as useful, dangerous, and fortunately weak; the Hlanssai regard the Vargr as graceless and unsubtle, but interesting and useful. Beyond the Vargr Extents, Hlanssai are widely seen as enigmatic, unstable, intelligent, and interesting; Hlanssai attitudes toward other races vary, but generally involve curiosity mixed with ironic humour.

A final important concept to note when dealing with Hlanssai is that of N'tarronth, and its converse, N'tarronchii'a; a further consequence of Hlanssai sensualism. N'tarronth is usually translated as 'shaping' or 'manufacturing' but it can best be expressed in human terms as 'imposing arbitrary form upon the universe'. Hlanssai are acutely aware of the distinction between the natural and artificial, and regard one of the most important aspects of individual behaviour to be the extent to which a being accepts external reality and acts within existing limitations. A being who rejects things-as-they-are and seeks to shape reality to their will is or displays N'tarronth; a being who takes a passive, accepting view is N'tarronchii'a.

Despite the fact that other races view them as mercurial and unstable, Hlanssai tend – by their own standards at least – to be highly consistent in being either N'tarronchii'a or N'tarronth. They regard an inability to choose between the two modes of behaviour as decidedly odd, comparable with a refusal to eat or drink. This does not imply any question of good or evil in Hlanssai terms; it is simply a matter of normal sentient behaviour.

In general, music, applied science, law, manufacturing industry, and exploration are classed as N'tarronth, whereas mathematics, figurative art, and hedonism are N'tarronchii'a. To the Hlanssai, therefore, most other races tend towards N'tarronth but display an odd tendency to mix elements of N'tarronchii'a. In other words, Hlanssai understand other species as little as other species understand Hlanssai.

HLANSSAI TRAVELLERS

Hlanssai may be encountered throughout Charted Space, particularly in spinward and coreward regions, and in a wide variety of circumstances. Many are afflicted with wanderlust, becoming roving artists, entertainers, animal-handlers, or adventurers. A strong disinclination to settle anywhere for long – and an inability to remain on good terms with one employer for extended periods – keeps them on the move.

Some Hlanssai become 'liaison specialists' in the employ of merchant starships engaged in exploratory work, in which their immense capacity for empathy is extremely useful, but Hlanssai cannot accept discipline, and so rarely find work in large, formal organisations. They are almost never found in military service.

Characteristics

Hlanssai Travellers have the following modifiers applied to their characteristics: STR -2, DEX +2, EDU -2

SOC is always treated as 5 in alien societies, but position in Hlanssai society is determined on 1D+4.

Traits

Hlanssai Travellers all possess one of the following traits:

N'tarronth: This Hlanssai is the sort to impose their will upon the universe and likely has a technical inclination. They gain DM+2 on all checks rolled to make things happen, such as persuading someone to do something or building a device to carry out a necessary function.

N'tarronchii'a: This Hlanssai goes with the flow of the universe and has an inclination towards arts and sciences that explain mysteries of the cosmos. The Hlanssai gains DM+2 on all checks

dealing with comprehension, such as understanding someone else's motivations or expressing the gravitational forces around a star in mathematical form.

Careers

Hlanssai outside their traditional social environment can enter any career, but suffer DM-6 to enlist or advance in military careers. DM-3 is applied to enlist and advance in careers within major corporations (such as merchant marine or corporate agent).

Hlanssai raised in their home society do not follow the standard career system but instead choose whether they are N'tarronth or N'tarronchii'a. The Traveller then begins a series of one to six terms of service. N'tarronth Hlanssai can choose how many terms to serve, but N'tarronchii'a roll 1D for the number of terms served. There are no re-enlistment, commission, promotion or survival checks, but each term the Hlanssai gain a skill, and roll to see if they gain an extra skill on top of this. N'tarronth Hlanssai gain an extra skill on a straight check of 10+. N'tarronchii'a Hlanssai gain an extra skill on 8+.

All Hlanssai may roll on the Life and Activity skill tables below, or on the N'tarronth or N'tarronchii'a table according to chosen philosophy.

Hlanssai Skills

1D	Life Skills	Activity Skills	N'tarronth Skills	N'tarronchii'a Skills
1	DEX +2	END +1	DEX +1	Art
2	INT +1	DEX +1	Mechanic	Profession
3	INT +1	Persuade	Medic	Survival
4	Melee	Survival	Drive or Flyer	Recon
5	Diplomat	Recon	Electronics	EDU +1
6	Survival	Gun Combat or Melee	Jack-of-all-Trades	INT +1

Benefits: Hlanssai receive no pensions, and gain one Benefit roll per term served.

Benefits

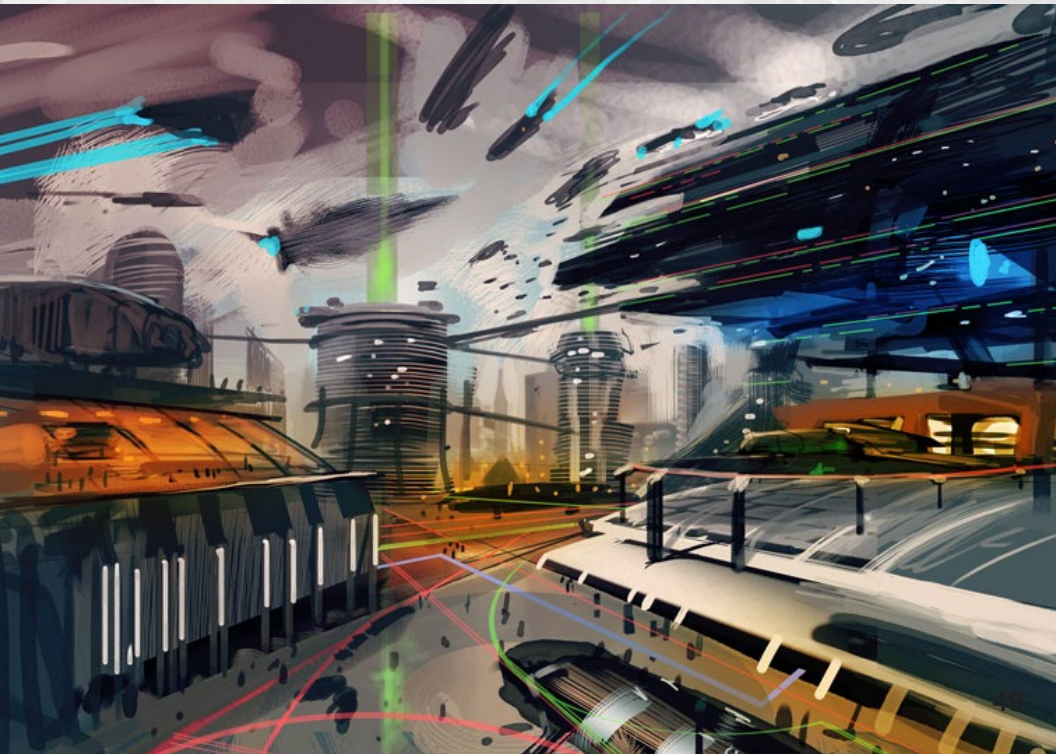
1D	Benefit
1	Cr1Dx10000
2	Blade
3	Gun
4	Low Passage
5	Middle Passage
6	EDU +1

SIDURI STATION

The gas giant Enkidu (roughly Saturn-sized) presents a tantalising opportunity for cloud-mining (or skim-mining) operations. The upper atmosphere not only provides the typical bounty of deuterium, but also possesses several complex compounds. These rare gaseous compounds are formed only through the natural processes found on gas giants and are used in a variety of high-tech industrial processes. Enkidu is unique in that conditions deep inside the giant have caused a plume of these complex compounds to rise to the surface, making them much more economical to obtain.

One of the main difficulties for cloud miners is the lack of a life-bearing world from which to sally forth in their search for the 'big score.' For several decades, a small orbital station was used as a starport, a Class D affair which rapidly showed wear as traffic into and out of Enkidu increased.

One of the moons of Enkidu, Shamhat, possesses moderately large deposits of light metals and the isotope helium-3 (traded as a radioactive). This has promoted a cottage mining industry on the Size 3 moon. While not unusually rich by the standards of the great cartels and multi-



sector spanning corporations, the resources of Shamhat have drawn a considerable population of wildcat prospectors.

Simply put, Shamhat is wealthy enough to provide a good living for a small prospecting business or independent wildcatter, but too sparse to bring in the heavier players of the mining trade. Some of the wildcatters refer to this as the 'Goldilocks Effect,' perfect for independents such as themselves.

HISTORY AND DEVELOPMENT

As the Enkidu Highport began to fall apart, the miners of Shamhat banded together to create a new Class C station on their beloved moon, spearheaded by wildcat miner Harlan Jorace who had struck it rich by discovering a huge vein of helium-3 rich regolith. Jorace, along with several other miners as part of the Siduri Consortium, then proceeded to construct the base in several phases. The starport is currently at Phase II (and still Class C).

STATION FACILITIES

Siduri Station comprises three main sections; the Garden Centre and two rings (Inner and Outer) as well as several hangars and landing pads in the outlying area for small craft (the landing pads) and smaller spacecraft (the larger hangers). Beyond the Outer Ring are several isolated structures, consisting of several hotels and two terminals. The entire base (with exception of open docking facilities) is vacuum sealed and the air is replenished by hydroponics. The station is also outfitted with internal, external and drone cameras. The locks are all equipped with biometric scanners. The outer perimeter (XT-line) of Siduri Station is very basic, consisting largely of lighting and light-strips to let the locals know where the boundary is located.

GARDEN CENTRE

Garden Centre is the nerve centre of the base, and at six-levels tall is the highest elevation. It consists of the headquarters, a small 'sleep coffin' area for on-call HQ personnel, various support-related facilities (kitchens, trauma centre, EVA Bay), and some cargo space. The single 'big gun' of the station, a large particle beam bay, is located here, along with five double laser turrets. Beneath the Garden Centre is the hydroponic dome.

The single linkway leading from the Garden Centre enters at the dome and passes through a secure checkpoint.

INNER RING

The Inner Ring is two levels tall (although there are some three level tall areas) and is dedicated to station support. This includes most of the station personnel housing (350 apartments: 100 basic, 200 standard,

and 50 luxury) the security section, the personnel recreation area, a larger set of kitchens and mess area, station personnel-only medical facility, and barracks facility for the hired security personnel (Balistika Sekureco). The Inner Ring has two vehicle bays, one for the trikes and monowheels used inside of the station, and a second EVA vehicle bay used for forays outside of the station. There is also a cargo area for life support and other supplies.

The Inner Ring is connected to the Outer Ring by way of three dual linkways, each with a secure checkpoint.

OUTER RING

The Outer Ring is two (and occasionally three) levels tall, and contains more of the commercial elements of the station as well as the main defensive capabilities (forty retractable weapon emplacements). The commercial elements include main warehouses (both standard and hazmat) with loading equipment, the station's many mobile repair rigs, two medium-sized bars (the Debris Field and Blast Chamber) as well as several takeout restaurants and a wide variety of shops and offices occupied by small entrepreneurs. A medical facility provides care for both personnel and visitors. There are six security checkpoints scattered through the Outer Ring which do not prevent movement but can drop blast doors over main access points and subsidiary sections.

SMALLCRAFT DOCKING

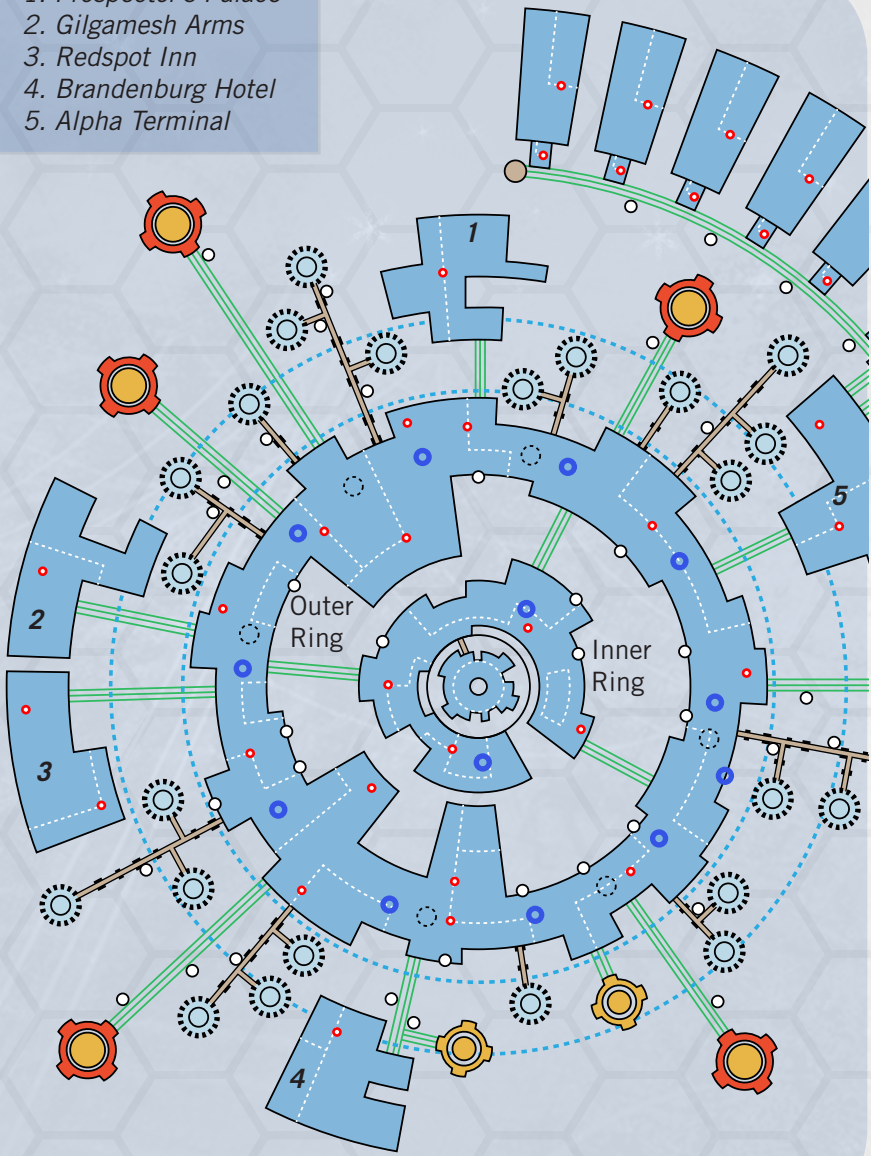
Outside of the Outer Ring are several isolated structures, including docking facilities for small craft and small spacecraft, five hotels, and two terminals. These are connected to the Outer Ring by either single or dual linkways (depending on the size of vessel they support). These junctures are monitored remotely, but have no checkpoints. They may, however, be isolated by blast doors from the rest of the facility in case of a seal failure (or when customs has to check through visitors coming from outside of the system). The docking facilities leading directly off the Outer Ring are generally used for local traffic and small craft. The facilities here are found in three categories: the 100-dton landing pads are generally used for small craft, while the 200-dton and 400-dton enclosed hangars are used for either small craft or small spacecraft as needed. Each pad or hangar has a refuelling station, station hook-ups for life support and power, and their own basic rig setup for loading/offloading goods (robotic cargo handlers or industrial loaders can be dispatched by the station headquarters).

BRANDENBURG HOTEL

The Brandenburg Hotel is a luxury class hotel, named for one of the members of the Consortium (who substantially funded the hotel's construction and demanded the right to name it after herself). It holds eighty guest rooms (five of which are large suites) and amenities

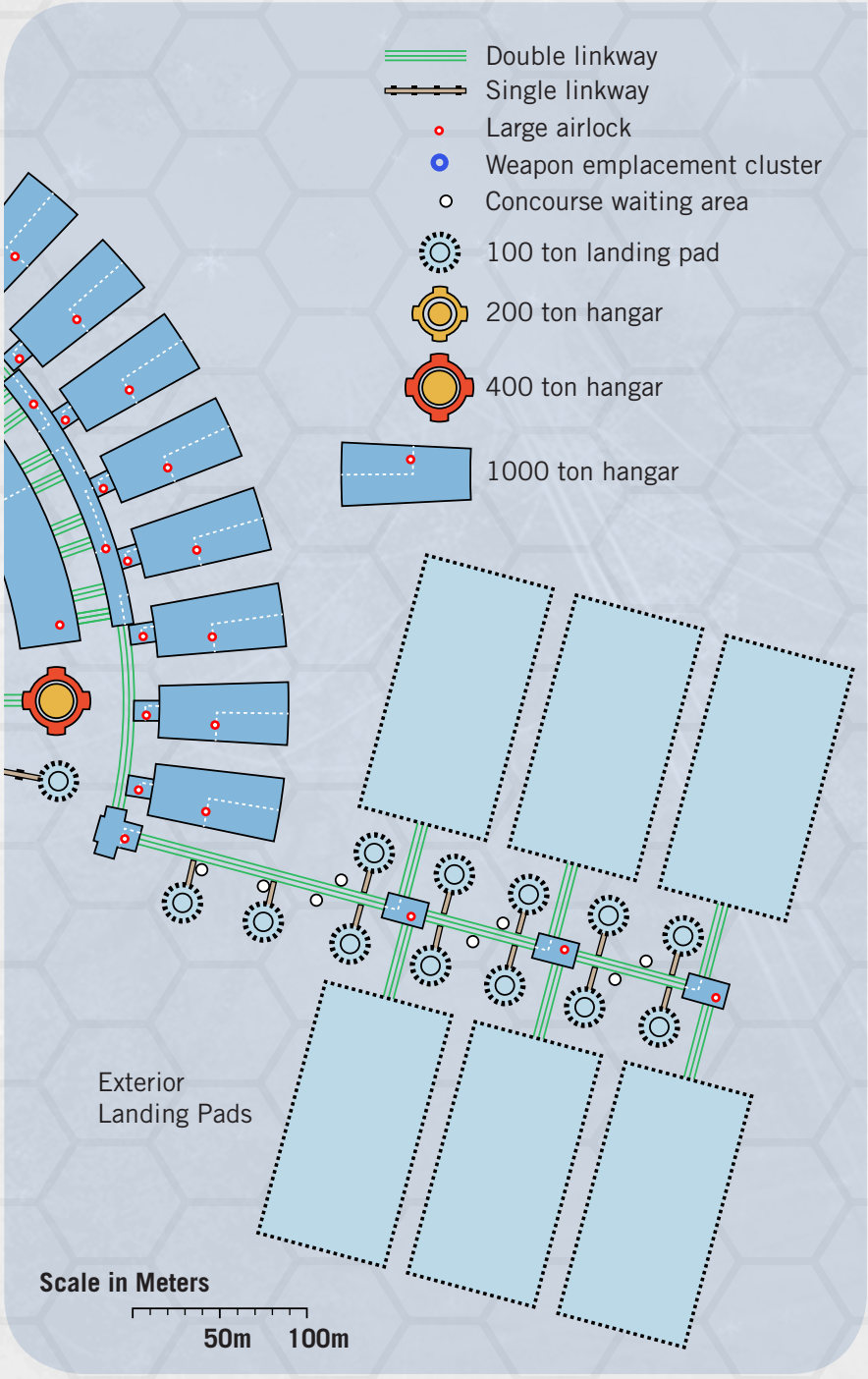
Places of Interest

1. *Prospector's Palace*
2. *Gilgamesh Arms*
3. *Redspot Inn*
4. *Brandenburg Hotel*
5. *Alpha Terminal*



SIDURI STATION

PHASE I


Double linkway
Single linkway
Large airlock
Weapon emplacement cluster
Concourse waiting area
100 ton landing pad
200 ton hangar
400 ton hangar
1000 ton hangar
Exterior
Landing Pads
Scale in Meters
50m
100m

(restaurant, casino, medical centre, shopping area, and checkpoint at the entrance to enhance security) as well as accommodations for the hotel personnel (48 total: 40 standard and 6 luxury suites, along with Virette Brandenburg's massive double suite and a second double suite she sets aside for friends).

Areas of significance include the Brandenburg Ballroom, a fine restaurant of significant size known for excellent food and elegant ambiance, and Virette's, a high-class club/bar named after Brandenburg herself. The décor is high-tech, with lots of transparent materials and high-gloss chrome with lightstrips.

Boutique Row, the hotel's shopping area, contains a number of upscale boutiques including some high profile out-system chains.

GILGAMESH ARMS

The Gilgamesh Arms is a standard hotel, with one-hundred and twenty rooms, a small trauma station for guest's medical emergencies, a shopping area, a small casino area, and accommodation for the hotel staff (24 total: 20 standard and 4 luxury)

The Hall of Kings (a hotel/restaurant) is considered to be a decent place to eat, with a 'rustic' motif (weapons/shields on walls). Apparently, someone thought Gilgamesh was a Viking, however, as most of the motif is far more Norse than Babylonian. The Enkidu Tearoom (bar) is surprisingly upscale for the Gilgamesh Arms. The wainscoting here is made from real teak imported from three parsecs away. Among the several small shops is Max's Munitions, which performs gun repairs and modifications for reasonable prices, owned/operated by a retired Marine Staff Sergeant (Maxine LeDoun).

OTHER HOTELS

The other two standard hotels, the Redspot Inn and the Ice Pagoda differ only in minor ways from the Gilgamesh Arms. The Redspot has no casino but a better restaurant (known for desserts). The Pagoda, which is three levels tall but has a much smaller footprint than the other hotels, has a tiny bar attached to their restaurant and a few more shops than usual.

The Prospector's Palace is a two-level economy hotel which provides service to Travellers who have reached the system with very little in their pockets. As befitting the name, the Palace provides occasional service to the local wildcat miners of Shamhat who have grown tired of their tiny sealed habitats and want to be sociable for a while without the costs associated with long-term housing in one of the Terminals. It has space for 300 (although 100 of these are in four communal dormitories and many rooms are listed as dual occupancy) and minimal amenities (cafeteria,

several takeout food joints, undersized trauma centre for total capacity) as well as accommodations for the hotel staff (32 total: 12 standard and 20 basic).

Alice's, a takeout restaurant with a surprisingly good breakfast bar, opens promptly at 0600 hours. The Golden House is the largest bar on-station and certainly the least attractive; this is the place to go for harder-to-get information, not only about Siduri Station and Shemhat, but the rigs around Enkidu as many of the rig personnel spend their off-time here. The Prospector's Palace only contains one (rather large) shop, the Forty-Niner, rented out by Hervé Schalt, who specialises in providing gear to the local miners. A good deal of this equipment is used (gently and otherwise), some of it is stolen (fell off a transport) and some of it has been specially ordered, but all of it is solid and Hervé has been able to attain and sustain a good reputation among the wildcatters (for quality, not his prices or general manner).

THE TERMINALS

Alpha Terminal and Beta Terminal connect the main hangars and landing pads to the station and are identical to one another, so the following description applies to each. The terminal includes non-station personnel long term housing (180 standard, 200 basic apartments), customs, and a commercial & recreation area for visitors. The commercial & recreation area contains a medium-sized casino, a few offices (mainly staffed by the representatives of larger companies), a handful of medium-sized shops, and takeout restaurants that provide quick tasty meals to the passengers coming off of incoming vessels. Each terminal also has three bars, two medium and one large-sized. While this arrangement is not the most efficient, the Consortium understands the dictate that passengers, when departing from a ship on which they have been for a week or more, want to spread out a little and socialise with a different crowd.

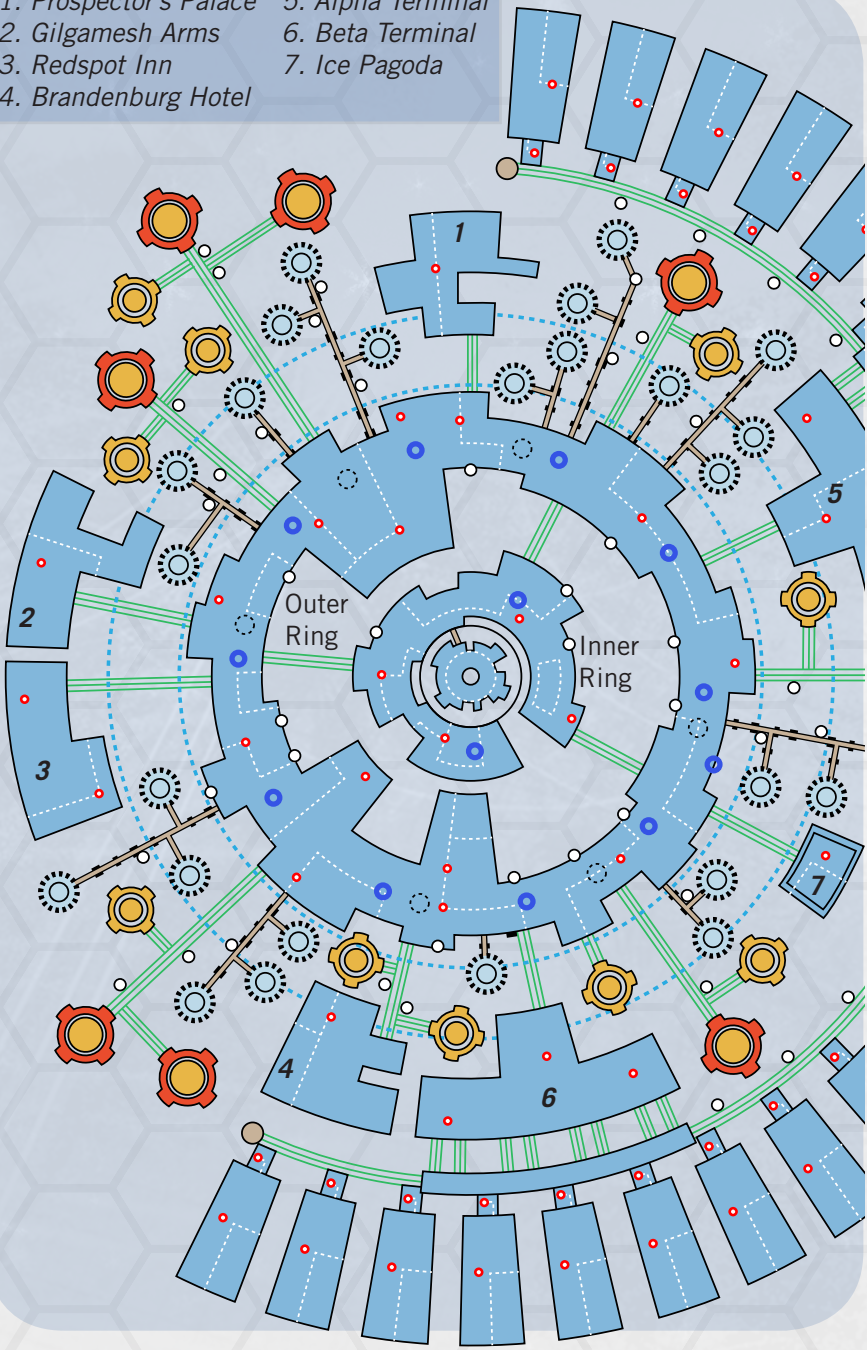
The customs area is staffed by system-government personnel (by law) and is situated at the end of a series of short concourses that feed goods and passengers directly past on their way to the interior of the station. Customs includes a small amount of warehousing (either for held goods or commercial traffic as needed).

Several Bars are present; Alpha Terminal sports the Naïveté, the Foggy Bottom, and the Tiki Roadhouse. Beta Terminal hosts the Armadillo Pub, the Vortex Café, and Dr. Diablo's, which serves 'Dr. Diablo's Miracle Cure,' guaranteed to de-rust lug nuts or get someone appallingly drunk.

The terminals also feature a single security checkpoint outside of the dual linkway that leads into the Outer Ring. This checkpoint does not stop any passengers (they have already cleared customs) but provides a visible presence for security and when needed, can cut this section off from the Outer Ring.

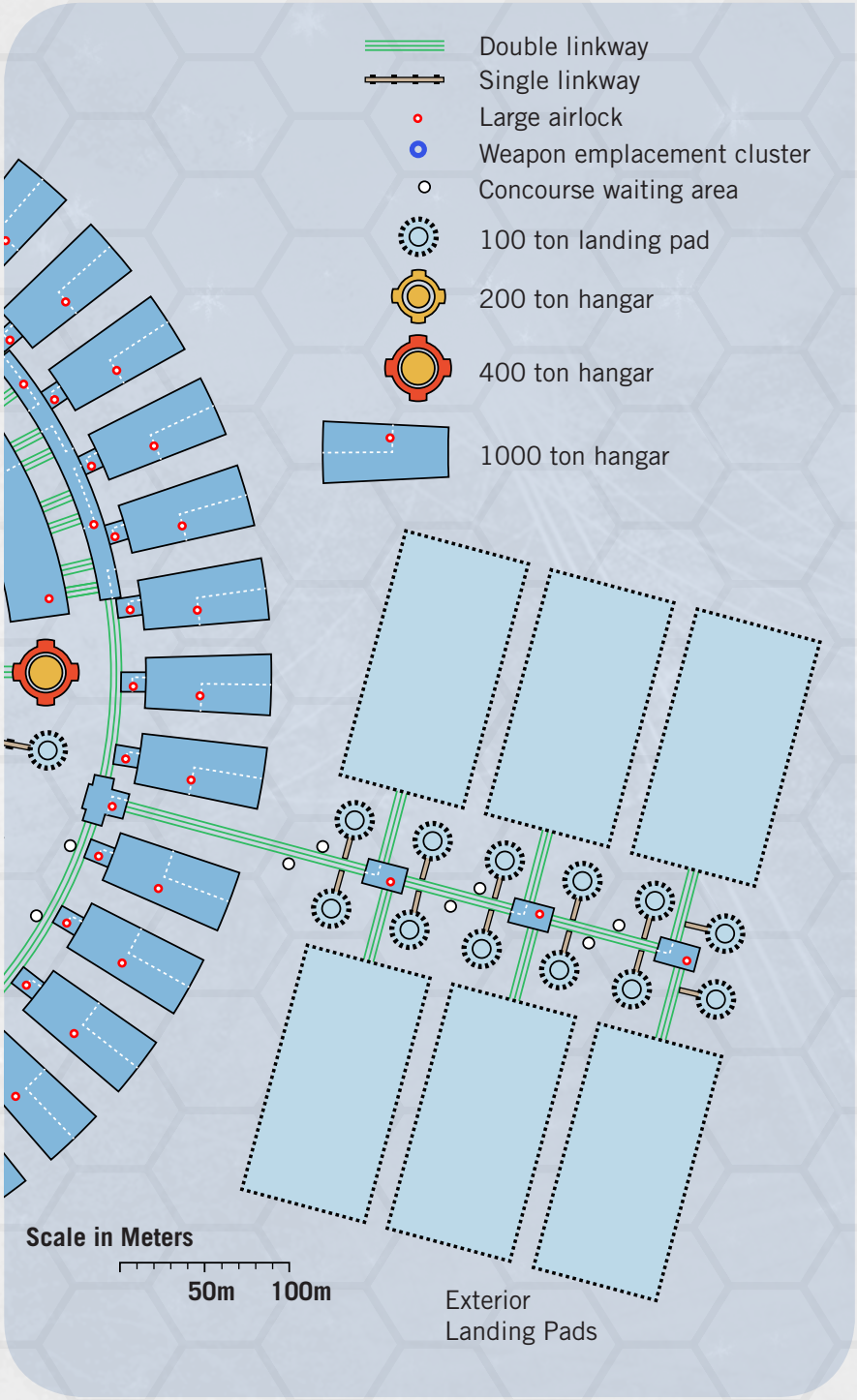
Places of Interest

1. *Prospector's Palace*
2. *Gilgamesh Arms*
3. *Redspot Inn*
4. *Brandenburg Hotel*
5. *Alpha Terminal*
6. *Beta Terminal*
7. *Ice Pagoda*



SIDURI STATION

PHASE II


Double linkway
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Large airlock
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Concourse waiting area
100 ton landing pad
200 ton hangar
400 ton hangar
1000 ton hangar
Scale in Meters
50m
100m
Exterior
Landing Pads

MAIN DOCKING AREA

Attached to each terminal are a dozen 1,000-dton enclosed hangars (thus, 24 in total in Phase II), which are linked by concourses to the terminals. There is a spur between them leading to the unenclosed landing pad area. This area includes six 5,000-dton engineered landing pads and a dozen smallcraft (100-dton) landing pads. The concourses leading to and from these areas include flex-seal attachments which can be used for ship airlocks or on most ship bay doors. The smallcraft pads and 1,000-dton hangars have single refuelling stations (which can pump in 1-dton of fuel a minute) and basic loading rigs, while the 5,000-dton pads have two refuelling stations, (allowing a 5,000-dton jump-4 ship to be refuelled in a 'mere' 16 hours and 40 minutes) and industrial loaders.

THE CONSORTIUM BOARD

The Siduri Consortium owns Siduri Station collectively, operating as a kind of umbrella corporation not only over the station but several of the subsidiary businesses attached to it. Anyone holding more than 5% of the shares in the Consortium are allowed to take a seat on the board. There are six members currently, and decisions made by the Consortium Board are handled directly through voting shares. If none of the Board gets a majority vote (50% of the shares plus 1), the matter is turned over to the Stockholders (which would include the 3% out-system shareholders) in a general vote.

Harlan Jorace

Harlan Jorace is the wildcat prospector who bankrolled a substantial portion of Phase I based on his helium-3 strike some twenty years ago. As such, Jorace is the plurality stockholder of the Siduri Consortium (28% currently). While he stays on the station for some part of the time, Jorace continues to prospect on Shemhat, and has an extensive sealed habitat of his own on the other side of the planet called 'Shadewell' by the locals.

Jorace has a bombastic personality, and greatly admires the freedom that he has acquired through his ownership of the station. He is known as a slave-driver for those who work with him, but also rewards them well and is fiercely loyal to them in return. This is a product of his own work-ethic, he regularly logs in double shifts on his own enterprises and expects the same of those under him. If it was not for the fact that he pays half-again what others pay, very few would work for him. Several wildcatters on Shemhat started out as employees of Jorace, and some of them began with a stake that he provided (at least in part) for them. He is the kind of man some hate and some love, and rarely does anyone fall in between.

Virette Brandenburg

Virette Brandenburg is another wildcat prospector, who holds the second-greatest stake in the Siduri Consortium (22% currently). Her money was used on the base itself, but some was devoted to building

the Brandenburg Hotel, which she demanded the right to name (after herself) and runs as her own little fiefdom. She spends practically all of her time on the station, in a luxury double-suite of her own design in the hotel. Her parties, all held at the eponymous bar/nightclub Virette's, are ongoing affairs.

Virette Brandenburg has the dubious honour of having another of the moons of Enkidu named after her, Virette's Moon, which was initially taken for a rogue asteroid of good size, has since been listed as an irregular moon. It was named for her, because like it, she is 'highly eccentric, yet lifeless and hard as hell' according to the discoverer (a former lover). She has sole mining rights over the iron-rich asteroid and used those profits to buy herself into the Consortium.

Like Jorace, Brandenburg is something of a slave driver; unlike Jorace, she does not inspire loyalty. She is, however, very good at making money and thus has a great deal of sycophants and hangers-on in her entourage.

Peter Brookings

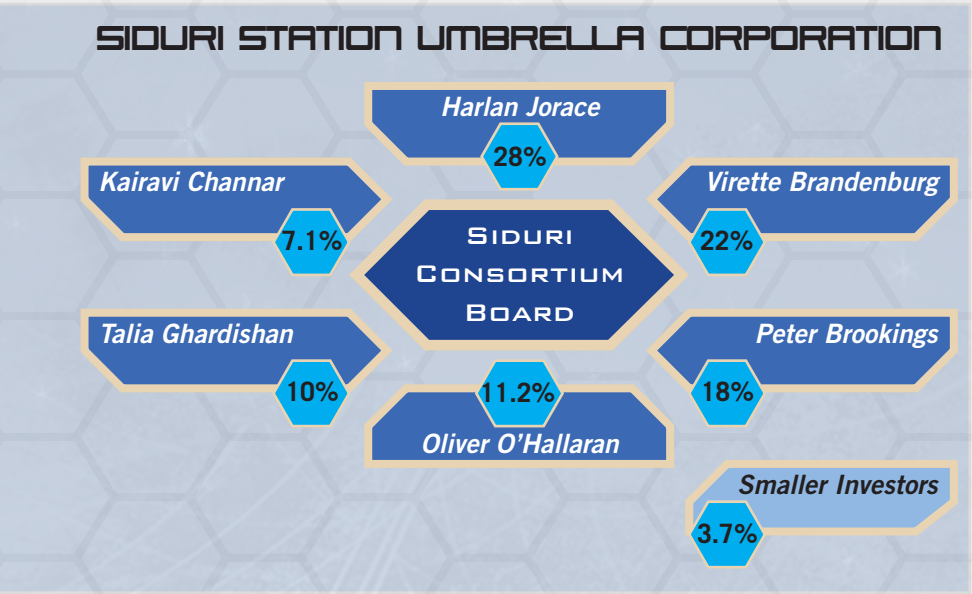
Peter Brookings is a venture capitalist who has decided to sink his money into a number of different opportunities in the system, including a skim-mining rig over Enkidu and an asteroid-based processing facility. Brookings has moved himself and his family into the system (they stay in the Inner Ring) to better guide his investments. He invested in the Phase II portion of Siduri Station, buying out the stake of one of the previous Consortium members and putting in enough cash back in to nearly equal the stake of Virette Brandenburg (who hates him vehemently). His stake of the Consortium is currently 18%.

Brookings has a laid-back personal style, and considers his employees and underlings to be 'colleagues' (one of his favourite words). He stresses original thinking and the need to approach problems from a different perspective.

Oliver O'Hallaran

Oliver O'Halloran is the only member of the initial Consortium Board who was not a wildcatter. O'Halloran ran a tramp starship line, which went from two to eight ships before he was bought out by investors. After paying off his debts, O'Halloran decided to sink a portion of his remaining funds into the Consortium, as the system was a place he knew well on his trade run and the other Consortium members were individuals with whom he not only had a great deal of trust in, but had values he admired. His was one of the smaller stakes (the rest of his money having gone into other investments) initially, although he placed more of his money into the Consortium during Phase II, raising his stake to 11.2%.

O'Hallaran spends much of his time outside of the system. He has married since investing in the Consortium, and spends much of his time with his wife and three daughters, the eldest of whom is coming of age and spends more time on Siduri Station than he does. In fact, Jennifer O'Halloran



may well receive the shares of her father in the Consortium soon, as she has a great deal of interest in the Station and has been studying habitat management rather intensely.

Talia Ghardishan

Talia Ghardishan is not strictly a member of the Consortium, but she does officially represent the off-world investment bureau Saarbar Landesbank AG (SLAG) and votes on their behalf. She has an apartment on Siduri Station, but spends much of her time looking after SLAG's other investments in other nearby systems, and thus spends very little time on-station. SLAG owns 10% of the stake in the Consortium.

Ghardishan is a no-nonsense personality, likeable but definitely out for her own interests at all times. Oliver O'Hallaran has expressed open dislike of her and petitioned SLAG to appoint a new representative, but the reasons for his intense feelings have not been manifest to the other members of the Consortium. For her own part, Ghardishan takes it all in apparent stride.

Kairavi Channar

Kairavi Channar is a retired Rear Admiral and another investor in the skim-mining rigs over Enkidu. Admiral Channar has always been interested in this system, as she spent some time here on the former Enkidu Highport when she was injured and fought a major engagement against a group of pirates who thought that skim-mining operations were easy targets. She currently has neither friends nor enemies on the Consortium Board, but respects Harlan Jorace and gets along well with both Brookings and O'Hallaran.

Whatever feelings she has towards Ghardishan or Brandenburg, she keeps to herself.

Kairavi Channar has, as one might suspect, a disciplined personal style, but is also well-known for being a good leader who demands much, gives much, and gets good results. She does not expect perfection, but believes in drilling constantly to hone skills. She does have a strict view on law-and-order (again, as one might suspect) and cleaned up some of the more dodgy elements from the station after she placed a not inconsiderable part of her severance from the military into the Consortium. This was just before the Phase II went online, and these funds proved to be necessary at a critical juncture. Nonetheless, she is presently the smallest stakeholder in the Consortium at 7.1%.

Smaller Investors

One former member of the Consortium, Ivan Lomax, was killed on Shemhat during a mining accident before Phase II started. His shares at the time were offered up to the members in equal portions under the bylaws. Jorace and Brandenburg absorbed these shares, but the other two surviving members excused themselves. Some of the released shares are on the local stock markets of several adjoining systems, and still trading in private hands (amounting to a 3.7% of the stakes after Phase II).

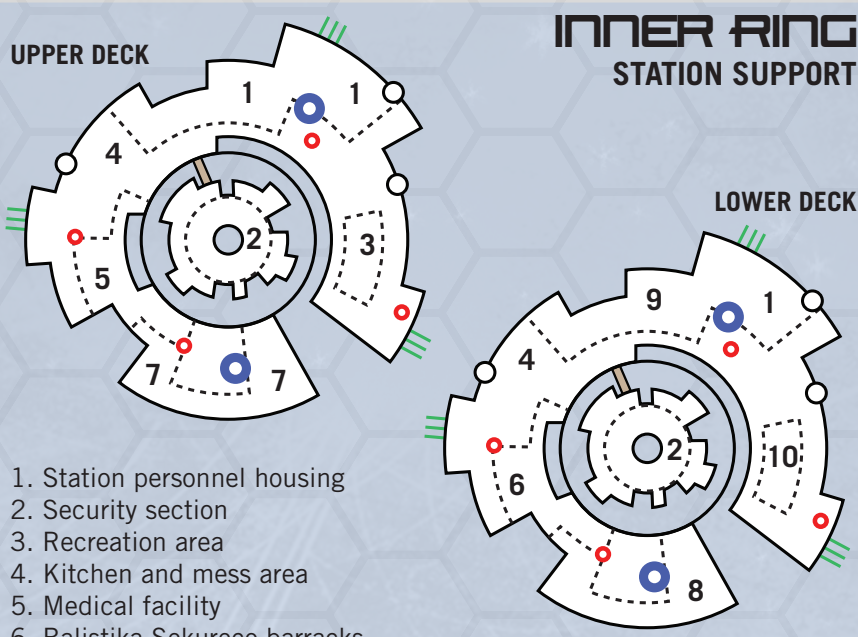
CHIEF ADMINISTRATOR

The day-to-day management of the Station has been turned over to a professional, former Port Authority Supervisor Garrett Patrick. Administrator Patrick is a gregarious individual, who is known for getting the job done. While many seem to feel Patrick is soft, he can be implacable when required, and is not afraid to take risks when needed. He and his wife, who runs a legal affairs business of her own in the Outer Ring, live on the station and rarely leave. Administrator Patrick takes a regular (though rotating) shift along with everyone else in the HQ, as well as several other divisions (maintenance, medical, warehousing). This has given him a good feel for the station. He gets along with nearly all of the Consortium Board, with the exception of Admiral Channar who thinks he is a lightweight, and Talia Ghardishan, who prefers to send messages through his subordinates. Administrator Patrick is closest to Peter Brookings and, after that, Harlan Jorace.

SECURITY

Balistika Sekureco (Ballistic Security) is a firm hired to provide the security on the station. The same company covers security contracts on several of Enkidu's rigs as well as the station, and is headquartered in the next coreward system. There are 120 members of the team on Siduri, which operate in three shifts of forty.

INNER RING
STATION SUPPORT



1. Station personnel housing
2. Security section
3. Recreation area
4. Kitchen and mess area
5. Medical facility
6. Balistika Sekureco barracks
7. Vehicle bay
8. EVA vehicle bay
9. Cargo area
10. Balistika gym and training facility

Approximately fifteen of the security personnel man checkpoints around the station and twenty more perform one- and two-man patrols. The final five of the on-shift personnel are located in the security centre, including a coordinator and assistant coordinator and three on monitoring duty.

The Balistika team has their own barracks in the Inner Ring, which includes housing facilities as well as an isolated gym and training facility. The Balistika team is headed by Lt. Jalyan Rhys-Smith, a retired marine and former law enforcement officer. In addition to the Sekureco personnel, there are 18 station security personnel on Siduri Station, divided into three shifts of six, who help man the monitoring room, perform any investigations as needed, and generally back up the Sekureco personnel. If the Sekureco Contract is severed (by either party), these are the individuals who will serve as the 'institutional memory' of the station, security-wise.

The Station Security group is headed by Adisa Ajanlekoko, a former Navy chief who once served under Admiral Channar. Chief Ajanlekoko and Lt. Rhys-Smith get along relatively well, trying not to superimpose their will on one another (the chief also gives the lieutenant the lead, considering her personnel outnumber his and she has more experience during her brief time as a civilian law enforcement officer).

SEASTRIKE

Maritime operations are often overlooked in Traveller games, since most combat takes place in space or around cities – which are for the most part built on dry land. However, it is possible for system defence boats and other craft to hide in bodies of water. They may even encounter enemy units whilst submerged, which presents some unusual challenges.

SENSOR OPERATIONS

Water (and similar fluids) can have curious effects on a vessel's sensor systems, especially if not calibrated to deal with the underwater environment. Water transmits sound extremely well, so sensor equipment may pick up distant underwater landslides, turbulence and assorted sea life. Unless a vessel has acoustic sensors (which is unlikely on spacecraft), these sounds will manifest as disturbances interfering with other systems.

The sensor equipment of vessel designed for space will not be damaged by submersion to a modest depth, but unfurling large equipment such as a distributed array – or moving with one deployed – may impose shearing forces upon it that will break supports not designed for such loads. Hull-mounted sensors and any system within a vessel's streamlining will be unharmed by underwater movement, though they may be subject to pressure effects in deep water.

The general underwater hubbub will affect shipboard sensors only slightly, imposing DM-1 on sensor operations, but attempting to use sensors across the water/atmosphere interface presents a number of problems. Radar and similar sensors are scattered by the surface layer, making it hard to detect and track a target above the surface from underneath it, and even more difficult the other way around.

The result is DM-2 on all sensor operations crossing the surface. In addition, there is DM-2 on attempts to detect a submerged vehicle or spacecraft plus the DM-1 for using sensors underwater. Thus a ship above the surface attempting to detect one beneath it suffers DM-4 on Electronics (sensors) checks and the submerged vessel suffers DM-3 to track the airborne target.

In addition, the range of sensors not designed for underwater work is greatly attenuated. Optical sensors, including thermal cameras, have a useful range measured in tens of metres, and may be entirely useless without powerful external lights.

Radar and similar sensors have a useful range of 100 metres per TL of the suite, within which they work normally but with the penalties listed above. Radar can possibly detect a target out to five times that far, but the power levels required will give away the sensing vessel's position to any detector in the area, even ships in orbit, and sensor checks suffer an additional DM-2 for every multiple of their base range. Thus a TL10 radar system can be used with the usual DM-1 for underwater sensor use out to 1km, suffering an additional DM-2 to 2km, DM-4 to 4km, and so forth. These penalties do not apply if the sensor is being used from a shallow depth to detect and track airborne targets.

Densitometers and neural activity sensors work normally underwater but are of limited combat use. NAS units may be swamped by the amount of neural activity going on in a typical body of water – fish are not smart but there may be a lot of them.

ACOUSTIC SENSORS

It is unusual to find acoustic sensors fitted to a vessel not intended for underwater work, which is itself a rather uncommon application for spacecraft. Thus an acoustic sensor module is not included in any standard package. Acoustic sensors include hydrophones and sonar systems; the former are highly sensitive microphones that pick up underwater sounds, while the latter send out pulses in active mode to search for obstructions or targets, or be used to detect other vessels' sonar emissions.

Acoustic sensors are backed up by processing equipment appropriate to their Tech Level. The most basic systems display a blip and give an indication of range; more advanced systems can identify or even map a target by its acoustic signature or reflections, and have an additional advantage; a vessel with basic or better acoustic sensors does not suffer the usual DM-1 for operating other sensors underwater – the processing equipment can be calibrated to help conventional sensor gear filter out interference.

Fitting acoustic sensors to a vessel requires adding hydrophones and emitter/receivers all over the hull, and is quite a lengthy job. This sensor equipment does not take up additional space but must be protected against the more usual conditions encountered by a starship, otherwise the detectors will be scrubbed off the first time the ship enters atmosphere.

Minimal Acoustic Sensors: A minimal sensor fit can be cobbled together in the field or created at TL5 or above. Both will end up costing about the same and have similar characteristics. A minimal acoustic sensor fit has little processing capability and cannot be used to offset the underwater sensor penalty. Minimal acoustic sensors have an effective range of 1km and cost Cr10 per ton of the vessel's hull.

Basic Acoustic Sensors: A basic sensor kit can be built at TL6. It includes depth-finding sonar as well as target detection and tracking systems. Basic acoustic sensors can be used to offset the DM-1 for using conventional sensors underwater. Effective range is about 2km and cost is Cr25 per ton of the vessel's hull.

Enhanced Acoustic Sensors: Enhanced acoustic sensors are available at TL7 and add detailed mapping functions within half their effective range, gaining DM+1 to detect and analyse underwater targets at all ranges. Effective range is 5km, and cost is Cr50 per ton of hull.

Advanced Acoustic Sensors: Advanced acoustic sensors are available at TL9 and have greatly increased range, performing detailed mapping functions within half their effective range. They grant DM+2 to detect and analyse underwater targets at all ranges. Effective range is 10km, and cost is Cr100 per ton of hull.

Magnetic Anomaly Detectors: Magnetic Anomaly Detectors (MAD), also known as magnetometers, detect disturbances in a planetary magnetic field (if one exists), enabling metallic or magnetic objects to be passively detected at a distance. A TL8 MAD has an effective range of 2km and at TL10 this increases to 5km, assuming a sizable amount of magnetic material such as a submarine, surface vessel or submerged starship; a MAD cannot detect a non-magnetic object. MADs can be confused by magnetic storms, ECM, large metallic objects (such as shipwrecks), and large deposits of magnetic ore. A MAD suitable for mounting on a spacecraft costs Cr25000.

WEAPONS

It can be assumed that any weapon designed to operate in space can be taken underwater without suffering harm, provided it is not actually used. If weapons not designed for underwater operations are fired, special considerations apply.

Firing Weapons Underwater

No projectile weapons, other than missiles and special devices such as spearguns, will function well underwater. Weapons can be fired or launched from a submerged vessel or vehicle with the barrel of the weapon protruding above the surface. In this case, the weapon must be modified, mainly to enable water to be quickly drained from the barrel, but standard projectiles can still be used.

Modifying a weapon to be used in this manner adds 50% to its mass (or displacement) and cost. Providing the draining process has been completed, a gun of this sort can be fired normally at any target above

water. A modification of this sort also allows missiles to be launched underwater, either upwards through the surface or at underwater targets. The launch system uses compressed gas to push the missile out of the launcher before its motor ignites, preventing damage to the launch tube.

Targeting can be a problem when operating across the atmosphere/water interface. DM-2 applies when launching missiles from a submerged vessel at a target above the surface. DM-4 applies when firing at a target that is also submerged. Missiles can be modified to use underwater targeting systems (these are not normally fitted to weapons intended for use in atmosphere or in space), which increases the cost of the weapon by 10%. This underwater targeting system reduces the penalty from DM-4 to DM-2.

Guns

Projectile weapons are virtually useless underwater. Range is reduced to 5m per damage dice of the weapon, after which the projectile sinks into the depths. Specialist underwater projectiles increase this to 25m per damage dice, and cost three times as much as standard ammunition.

Firing a high-velocity projectile underwater is likely to damage the weapon due to barrel pressure and the projectile itself will not travel far. Roll 2D each time the weapon is fired. On 10+ the gun's barrel will rupture and its mechanism will be damaged. On 12+ the damage is sufficiently serious to allow water to enter the firing vessel or vehicle.

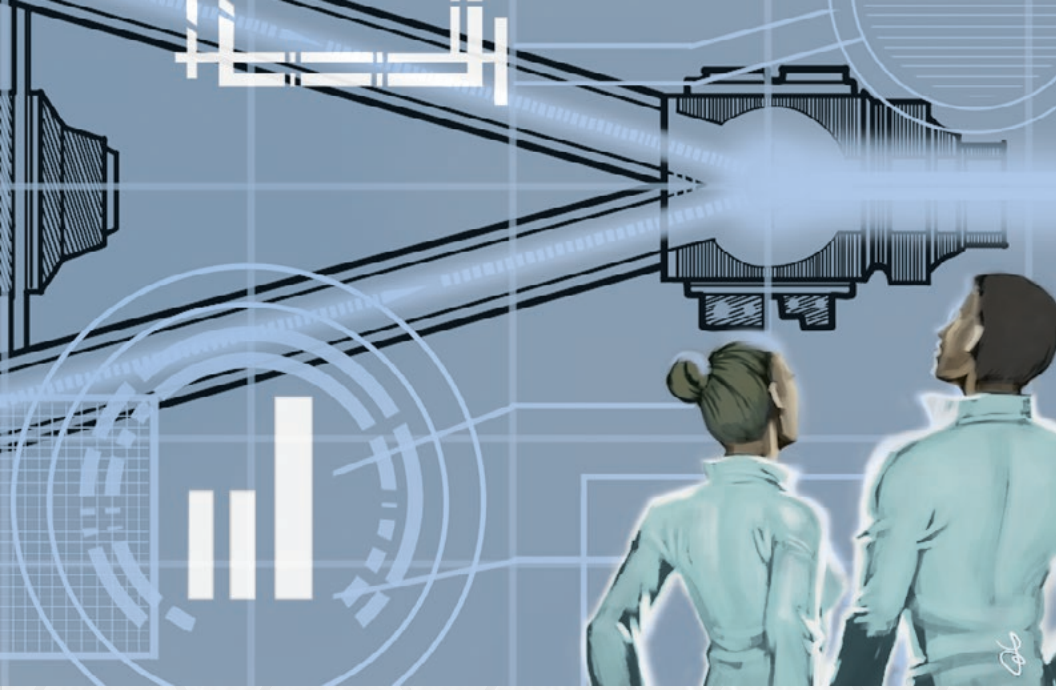
Missiles

Since spacecraft must sometimes fight in a gas giant's atmosphere, their missiles are assumed to be built to with stand the stresses involved. These can be greater than those encountered underwater, so it is not necessary to build special missiles for underwater use. Similarly, launchers and other equipment will withstand immersion indefinitely. Control, however, may be a problem.

Because missiles exit the launcher more slowly and under power, there is little chance of barrel rupture. However, water vapourised by the motor can create overpressure. Roll 2D for every missile launched. On 12+ the launcher is put out of action. Missile range is reduced to 1/10 of normal range against airborne/ground targets or 1/1,000 of space combat range. This applies only to missiles travelling underwater; those fired from a launcher above or just under the surface function normally.

Lasers

Lasers are easily dispersed by water. Beams lose significant amounts of energy as they pass through water, vapourising it to create an expanding tunnel of bubbles. The thermal signature of a laser fired underwater is hard to miss, and there will be a visual indication when the bubbles reach the surface.



A conventional laser fired underwater may be damaged. Roll 2D each time a weapon is fired; on 11+ the weapon is put out of action though there is no real chance this will lead to a hull breach or serious leak. To avoid this possibility a laser weapon can be modified for underwater use, increasing its cost and mass by 15%.

Vehicle and personal scale laser weapons also suffer -1 to damage per metre of water they penetrate. Starship-grade lasers lose -1 point of damage per 10 metres of water they penetrate. In addition, a laser fired at an underwater target suffers DM-2 to its attack rolls, with an additional DM-2 if the weapon must fire through the air/water interface, either from above at a submerged target or vice versa.

Other Energy Weapons

Meson weapons can be used underwater or against underwater targets without modification, and are probably the most lethal armament for maritime vessels. Some worlds use submarine-mounted meson guns for planetary defence, hiding in deep water and moving to prevent a counterstrike from finding them.

Other energy weapons are much less effective. Particle accelerator weapons cannot be used underwater and will not penetrate the surface of a body of water. Plasma and fusion guns will destroy themselves if fired underwater unless heavily modified, adding 75% to cost and mass. Even then, the weapon suffers a -2 to damage per metre of water penetrated. On a 2D roll of 9+ a plasma or fusion gun (whether modified

or not) delivers half its normal damage against the firing craft regardless of whether or not it hits a target.

PERISCOPES

Periscopes can be built into a spacecraft; There are many types of periscope for observation, communication, and offensive use. It is unusual to find one fitted to a starship unless it is a specialist design intended for underwater operations of a military or scientific nature.

Simple Optical periscopes have a fixed-angle lens and no intensification or enhancement features. They are small and inconspicuous, presenting minimal radar reflection. A simple periscope costs Cr25000.

Compound Optical periscopes have zoom lenses, controls for tilt and close focusing, and fittings for cameras and image enhancement devices. At TL7 they can be computer-controlled, linked to gunnery computers and other special equipment. A compound periscope costs Cr50000.

Radio and Radar Antennae are bare metal masts with appropriate cable systems, or a buoy to carry an antenna to the surface whilst the ship remains submerged. No communications or detection equipment is included in this price. Cost is Cr10000.

Laser Communicator/Target Designation periscopes are complex optical designs, and can be used for normal observation. They allow a vessel or vehicle equipped with laser systems to use its own sensors and designators through the periscope. A laser comms periscope costs Cr150000.

Turret periscopes allow a turret to be raised above the surface and fired while the ship remains just below the surface. A turret periscope on a ship costs MCr2, is available at TL8 and adds +1 tons to the turret. On a vehicle, it doubles the cost of the turret as well as the number of Spaces it requires. Mounts of this sort are normally found on craft in the aerospace defence role, enabling them to engage aircraft or space vessels. Some system defence boats use the weapon for the same purpose, or to ambush vessels landing at a port close to a body of water.

IMPERIAL MARINE
TASK FORCE ORGANISATION

The Imperial Marine Corps was originally formed as an adjunct to the naval forces, but has developed into a complete combat service in its own right. The marines provide a rapid strike capability or rapid-deployment defensive force. They also protect naval installations and the facilities of the unarmed services such as embassies. The Marine Corps enforces interstellar law in frontier areas, notably the Imperial Rules of War. For this reason some mercenaries refer to the marines as 'the cops'.

The Marine Corps uses a very flexible organisational structure, as it may have to deploy anything from a detachment of ten marines to an all-arms combat division. Marine regiments exist for administrative rather than combat purposes; task forces are formed out of available units as the need arises.

A marine regiment contains three task force headquarters units plus (usually) nine marine companies and various smaller units performing specialist functions. Units are assigned to a headquarters to create a force of whatever size and composition may be required. These units may not be entirely complete; it is not uncommon for a marine company to be missing one of its platoons, which has been broken up to provide small contingents here and there. Where possible, companies providing detachments in this manner are kept out of large-scale combat forces. Personnel not assigned to detachments receive training or protect the unit's base. Any given company will rotate through large and small scale deployments, gaining experience of all operation types.

EXAMPLE MARINE TASK FORCE

The example task force presented here is on wartime deployment as a significant combat force. It is light on administrative and support capabilities as these are provided by higher echelon formations or the Imperial Navy but has the support of a meson gun battery. The main combat capability of the force is its marine infantry companies. A force expected to operate independently for any length of time would be given more logistics and support units, whilst one expecting to engage in mobile operations in the field might be assigned a force of grav tanks from the regimental pool.

MARINE TASK FORCE

- Force Command Headquarters
- 3 Line Marine Companies
- Meson Gun Batteries

All vehicles other than air/rafts have a dedicated crew. This is usually a driver and gunner, but can include additional personnel if the vehicle has a specialist function. Air/rafts are militarised versions of the basic open-topped civilian design and can act as mobile fire support posts using a pintle mounted weapon. The two-man scout teams (one air/raft pilot, one observer/gunner) are often retasked to carry out this role.

Since the force is operating primarily as infantry, vehicles are considered to be part of an infantry unit rather than being separately commanded. Thus a grav APC with part of an infantry platoon riding in it is part of the infantry unit's command structure rather than there being a command vehicle for the APCs of the platoon. A squad's APC is considered to be part of the squad and commanded by its leader. APCs are capable of offering light fire support to their personnel and may remain in proximity during combat or retire to a safe laager point.

Force Command Headquarters

The composition of a force command HQ is almost always the same. This ensures that if a marine task force is deployed it will have certain capabilities including dampers to protect against nuclear attack, communications, intelligence analysis and medical support.

The headquarters contains most of the unit's grav vehicles, which are mostly variants on standard grav sleds. A number of air/rafts are assigned, some for unit commanders and others for scouting purposes. In practice, these vehicles are often away from their parent formation; running errands or transporting a handful of personnel to deal with urgent situations.

FORCE COMMAND HQ

Command Post Section
- Command APC
- Battle Computer APC

Communications Section
- Communications APC
- Electronic Warfare APC

Point Defense Section
- Air/Raft
- 3 Point Defence APC

3 Point Defence APC
- 4 Nuclear Damper APC
- 3 Nuclear Damper Direction APC

Scout Section
- Command Air/Raft
- 5 Air/Raft

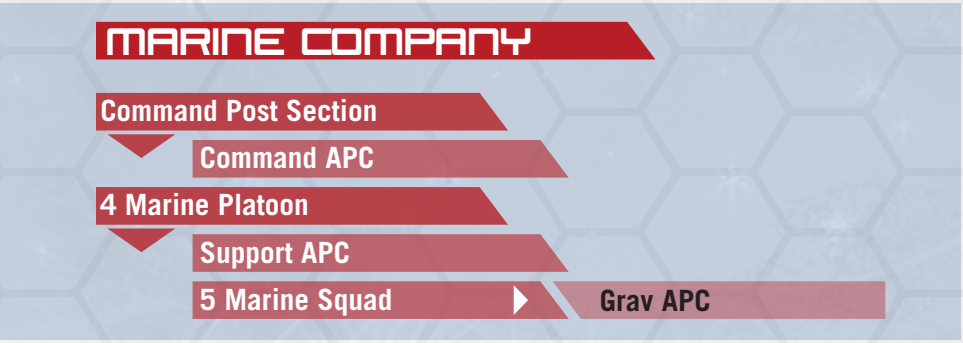
Medical Section
- Surgical APC
- 3 Grav Ambulance
- Utility Sled

Maintenance Section
- 2 Recovery Sled
- 2 Utility Sled
- 2 Workshop Sled
- Air/Raft

Mess and Transport Section
- 5 Utility Sled
- Air/Raft
- 4 Field Kitchen Sled

Line Marine Company

A marine company consists of a command post section and four marine platoons.



Marine Squad

Marine squads are more self-reliant than their army equivalents, as a squad (with or without an officer) may be detached to serve aboard a small warship or protect an installation. In combat, marine squads are no less effective at working together as part of a higher force, but personnel at all levels are trained to display aggression and initiative with minimal reliance on other units or supports to solve problems. That does not mean a squad will not call in meson gun fire on an enemy position, but marines are not in the habit of waiting around for an ideal support package to become available.

A marine squad is composed of two four-man fire teams plus a squad leader. The APC driver and gunner are considered to be part of the squad when on deployment, but at base the vehicles are grouped together for administrative purposes. However, squads train together (including APC crew), which allows smooth and reliable infantry/vehicle cooperation in the field. All marines intended to fight as infantry are equipped with battle dress and FGMP-14s. Vehicle crews and specialists normally use combat armour and have gauss rifles available if necessary, but can don battle dress and fight alongside the rest of the squad at need. Every marine is a fighter first and a specialist second.

Meson Battery

The task force's meson battery is assigned from the pool of support units available to the regiment. Meson artillery has the advantage that its particles can pass through solid matter, enabling the

engagement of targets unavailable to conventional artillery or direct fire weapons. The battery consist of four firing sections, a security element and command section.

The battery normally receives targeting data and support requests from the line infantry, but has its own forward observers who use the command section's air/rafts. It is not uncommon to find one of these vehicles assigned temporarily to each line company during an engagement. Each firing section is a single meson gun sled, which are usually dispersed to avoid counter-battery fire. The marine squads of the security section are equipped and organised the same as those of the line company. The section leader is assigned the air/raft but in practice it is often co-opted by the battery command section for miscellaneous tasks.

Equipment

The personal equipment of the task force is noted above – most personnel fight with FGMP-14s and wear battle dress. Gauss weapons are available for security details where battle dress is not appropriate, and snub weapons are normally used aboard ship.

Grav APCs are capable of carrying the full squad and providing support with a rapid-pulse plasma gun. Under some circumstances missiles are also carried, which may or may not have nuclear warheads. The support APC is based on the same chassis but gives up some of its

troop complement to make room for a larger power plant and fuel tanks. It is armed with a heavy fusion gun for direct-fire support. Similarly, the point-defence APCs have limited space for passengers but mount rapid-fire gatling laser systems for aerospace and missile defence. They are sometimes used for direct fire support against 'soft' targets such as light vehicles and infantry.

The force's grav sleds are more lightly protected than the APCs, and not intended for direct combat operations. All are based on the same chassis, and the majority mount a gauss gun for self-defence. This includes ambulances, though medical vehicles will normally only shoot if they are directly threatened. This can mean choosing not to support nearby troops under attack, but since most combatants will respect the status of ambulances providing they do not open fire, the tradeoff is generally beneficial.

DOCTRINE

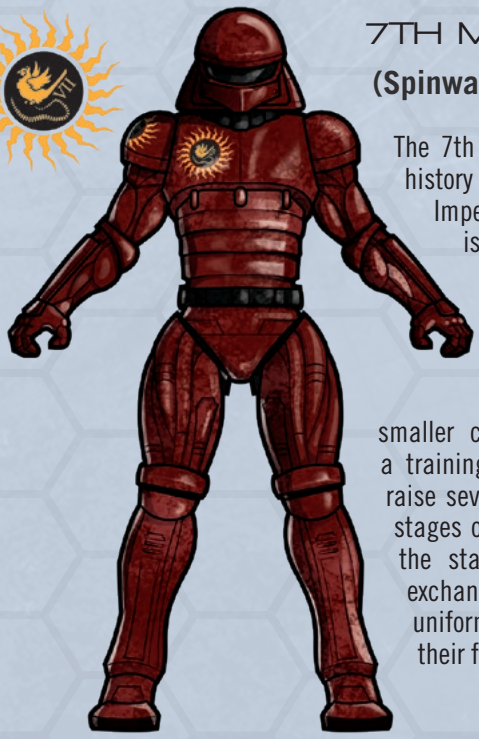
Marine forces generally operate in conjunction with naval assets, and often benefit from orbital reconnaissance. Naval gunfire support may be available, depending upon the situation, but in any case the Imperial Marine Corps usually enjoys a technological superiority over its opponents. Where enemies are equipped to TL11+, the marines have to be cautious, but lower-tech enemies often have few weapons that can harm a marine in battle dress. Those they do have tend to be large and clumsy, and vehicle-mounted.

A marine's fusion gun can kill a mid-tech tank, and mid-tech aircraft simply cannot survive in airspace swept by TL14 aerospace defence weapons. A marine task force can punch a hole right through a conventional force many times its size, dismounting from its APCs only to take enemy commanders captive. This capability is offset by the fact the marine corps is spread thin, meaning that very small forces are often expected to obtain big results. The training, equipment and mindset of the marines corps is geared towards this.

Against more advanced enemies, a marine task force can expect a tougher fight. However, it is equipped for rapid movement and has the capability to deploy at least some of its personnel directly from orbit onto critical targets. Marine forces are often used as a spearhead to secure government centres and other strategic locations whilst the army makes a large-scale invasion. Deprived of central direction, many enemy forces simply collapse.

In the field, a marine task force emphasises aggression, mobility and firepower. Its APCs are not tanks, though they are better protected than many mid- to high-tech combat vehicles. Squad APCs, with support and sometimes point-defence APCs, can dash to a critical point and overwhelm an enemy with firepower, but they cannot take on heavy grav armour. If such a clash is expected, the task force will be assigned tanks from the regimental reserve.

Overall, the marine corps is a hammer, designed to shatter resistance and end a conflict before it has begun. Its task forces are expected to take on any opponent, in any environment, under any conditions. For this they need a flexible organisation in which the individual marine can make intelligent and courageous decisions, sometimes acting entirely alone. This is the highest principle of the marine corps – every member is a combatant first and foremost, and nobody fights like an Imperial Marine.



7TH MARINE REGIMENT

(Spinward Marches Contingent)

The 7th Marine Regiment has an unbroken history going back to the first years of the Imperium. The secret of its longevity is dispersion; the 7th has at least a small presence in most sectors. The Spinward Marches component of the regiment has four battalions at peacetime strength, though these are normally dispersed in smaller contingents. The 7th also acts as a training cadre for new marines, and can raise several companies of troops in various stages of training. These personnel all wear the standard colour scheme of the 7th, exchanging it for a new set of insignia and uniform modifications when assigned to their final unit.

ADVENTURE

A DAGGER AT EFATE

***Location**: Efate (A646930-D) Regina subsector, Spinward Marches*

The mercenary cruiser *Dagger*, currently on contract to the Imperial authorities, has been missing for some months. It has now reappeared, on a direct course for the Imperial world of Efate. The Travellers are assigned to board the craft, which is not answering communications, and determine what has happened to it.

The adventure assumes that a major battle is occurring in the Efate system and Imperial resources are stretched thin.

EFATE

Efate is a heavily industrialised, high-tech world close to the Imperial border and thus a vital strategic objective in any conflict. It is the site of both Navy and Scout bases, and has a significant Imperial Army contingent in place as well as its own indigenous forces. Efate has seen a lot of unrest in recent years, and is in the throes of a bogged-down counter-insurgency campaign. Although Amber Zone status has not been imposed, visitors are advised to be cautious.

--TNS NEWS BULLETIN --
--EFATE/REGINA (0105-A646930-D)
--Date: 078-1107

-The small brushfire war that has sputtered off and on -for several years on this frontier world has, within the -last week, come suddenly alive. New ships are arriving in -orbit daily, and Down Franklin Starport, for many months -nearly empty, is now choked with a steady flow of marines -and army troopers disgorged from busy fleet shuttles.

-Yesterday, Colonel Eitan Rahbaan, public -relations officer for the newly formed Third (Provisional) -Frontier Army, explained in a press conference the reason -for the sudden build-up and the general plan of action. -The continuing protracted nature of the insurgency -action on Efate had been a mounting drain on manpower -resources, and begun to sap the morale of indigenous -troops. As a result, the decision was made to concentrate -maximum effort to end the conflict in the shortest -possible time.

-Maximum effort is the only way to describe -the amazing build-up that has taken place overnight. -Already official circulars list eleven brigade-sized -Imperial formations deployed on-planet, in addition to the -four brigades that were here previously. Even now, large -transports are off-loading heavy vehicles of the well- -equipped and hard-hitting 317th Air-Mechanised Brigade, -and rumour has it that the build-up is still not complete.

-This reporter admits to being overwhelmed by this truly -impressive show of force. One can only wonder how long -the stubborn but indifferently equipped insurgents -on this world can hold out against the ultramodern -juggernaut Army Vice-Marshal Lord Calavan, commander -of the Forty-Third Army, is preparing to unleash on it. -Days? Hours?

THE SITUATION

The mercenary cruiser Dagger was hired on an emergency basis by the Imperial Military Resource Board for supplemental operations in the Efate system of the Regina subsector in late 1106, and served on ordinary duties for several months. In early 1107, local rebels mustered forces and mounted a breakout with a rag-tag accumulation of several converted commercial ships. Fearing this operation was a diversion meant to sap Imperial blockade forces, and yet unwilling to let the rebel task force go, Rear Admiral Santeenochev's staff dispatched several hired vessels in pursuit. Mercenary cruiser Dagger was one of them. It left on less than an hour's notice, leaving behind its troop unit.

Four months later, a battle is raging in the Efate system, and the Imperial Command has gradually committed every available ship to the fray. The Travellers, aboard a merchant or scout, have just entered the system, completed all necessary identification procedures with system control, and are now proceeding toward Efate.

System Control Efate communicates that mercenary cruiser Dagger has just emerged from jump space near the Travellers' ship, and is not acknowledging attempts to make contact. Nor is it manoeuvring, which suggests it may be in need of help. Since all available naval vessels are engaged in the battle on the far side of the system, System Control instructs the Travellers' ship to investigate and render assistance as required. This is within the bounds of interstellar law, and with so much military activity in the system the Travellers might be ill-advised to disobey.

MERCENARY CRUISER DAGGER

Dagger is lifeless and unmanned. Its controls have been wrecked and the ship's computer has been largely disabled. All remaining functions are carried out automatically, with little intelligence on the part of the ship's systems.

Dagger will manoeuvre slightly to make docking very difficult, requiring either a highly aggressive boarding manoeuvre with a Very Difficult (12+) Pilot check (DEX) or close pass to allow personnel to jump across in vacc suits with a Formidable (14+) Vacc Suit check (DEX). Both are hazardous undertakings but achievable. The Travellers may come up with other solutions.

Once aboard, it becomes apparent that the ship is lifeless. Only the emergency lights are on, and life support is operating at a minimal level. The referee might choose to play this situation for tension, with the Travellers wondering if there are hostile humans or aliens waiting in ambush.

Reaching the bridge and engineering areas the Travellers discover the same story; controls are not only smashed but electronics have been gutted and, quite possibly, sold or used elsewhere. Jury-rigging a control system would take at least 36 hours, and the Travellers do not have that long. Dagger is headed directly for Efate, on a pre-programed course that will take it into the atmosphere. Plotting the target area indicates the primary Imperial troop concentration on the planet is in danger. This cannot possibly be coincidence.

Dagger will hit the upper atmosphere in a little over eight hours. If the Travellers are aboard at that point they will be unable to leave before the ship plunges into the ground. The obvious solution is to alter the ship's course so it misses Efate, or ideally to bring it under control.

There is an additional problem, which the Travellers may or may not discover; a five-megaton nuclear device has been concealed within the vessel. It is connected to a set of sensors that will detect if the ship is landed on any vacuum world or passes close enough to a vessel of 1,000 tons displacement or more (dealing 1DD damage). The device itself is well concealed but the sensors might be found by Travellers investigating the ship using a Very Difficult (12+) Investigate check (INT). Tracing control pathways will lead to the bomb with a successful Electronics (sensors) check (INT).

As for the guidance system, the ship is currently being controlled by an extremely dumb, lobotomised version of its computer. The machine could be confused by false data fed from its remaining sensors with a successful Electronics (sensors) check (INT), fooling it into changing course. Alternatively, it might be possible to hack the damaged computer with a successful Electronics (computers) check (INT), though its responses will be unpredictable and possibly dangerous.

It will seem likely that Dagger was captured by the rebels at some point; internal damage from a boarding action confirms this if the Travellers look for it. The question of where she has been and where the rebels got a big nuclear warhead is a more complex one. If the ship is destroyed there will be no way to find out, which is a strong argument against schemes like using the nuke to blast the ship apart so that fragments are too small to cause damage. That plan also involves setting off a nuclear detonation in orbit over an industrialised world, but the Travellers might not care too much about such niceties. The authorities will, however.

NON-MAINWORLDS

For our purposes, the term non-mainworlds refers to planetary bodies that are not the main inhabited world of a system, and specifically excludes planetoids and gas giants. Typically, the mainworld of a system will be the most habitable planet, or the one with the best resources. This is not always the case, such as where a habitable world is economically unsuitable or a resource-rich one is extremely hostile. In such cases the system's primary population will dwell elsewhere and exploit resources with temporary expeditions or resource-extraction camps inhabited on a transient basis by workers who live elsewhere.

GENERATING NON-MAINWORLDS

The Traveller star system design rules focus on mainworlds and is, in general, not suitable for non-mainworlds. Since the mainworld is the most important place in the system as far as most Travellers are concerned, the rules generate it in terms of atmosphere, hydrographics, temperature and so forth, and the referee then decides where it is located in the system. This is entirely sufficient when the focus is on that mainworld, but the same process cannot be used to create a plausible star system - there is simply no possibility of finding a lush, green world with a breathable atmosphere orbiting so far out that its star is just a distant speck in the sky.

When generating a non-mainworld, use the following procedure.

Size
Roll 2D-2 for Size as normal.
If Size 10 is indicated, roll 2D again: on 11+ the world is in fact a super-Earth.

Atmosphere
Roll Atmosphere as normal, with the usual modifiers for size.
Any Atmosphere code that is not 0, 1 A, B or C should be reset to A (exotic). The original code as generated can be used as an indicator of atmospheric pressure.

Hydrographics
Roll Hydrographics as normal, using the Atmosphere code. Apply DM-4 if the world is in the hot zone.

EXAMPLE OF WORLD CREATION

Size: 7 *(2D-2)*
Diameter: 11,200 km
Surface Gravity: 0.9
Atmosphere: Exotic (A) *(2D-7+7=4) Becomes A*
Atmospheric Pressure: 4
Hydrographics: 46%-55% *(2D-4=5)*

Population: 0 *(2D-8)*
Government: Captive Government
Law Level: 9+ *(2D-7+6=10)*
Tech Level: 8

Population
Population should be assigned by the referee in most cases, and will usually be zero. This does not necessarily mean there is no-one there – a world could have a small number of scientists, prospectors and perhaps hidden ne'er-do-wells present at any time but would still be considered uninhabited. If random determination is desirable, roll Population on 2D-8.

Government
Most installations and small outposts have no government as such – they answer to an outside agency such as a parent government or corporation. If a UWP code is necessary, assign code 6. To randomly generate independent settlements, roll 10+ on 2D for a community to be self-governing, with a DM equal to the Population code. A self-governing community should be assigned a suitable code to indicate the Government type the referee has chosen. Corporate control is most common, but many small communities are created by groups with strong views and may have quite extreme Government types.

Law Level
Law Level is determined normally.

Tech Level
The Tech Level for an installation owned by a larger organisation will be equal to that of the parent government or corporation. For independent

installations, Tech Level should be suitable to reflect the local average starfaring tech – typically around 10-12 in the Third Imperium universe. Alternatively, Tech Level can be determined on a roll of 1D+7. Note that the presence of this level of technological knowledge does not equate to the ability to produce large amounts of goods at that Tech Level.

Another option when generating non-mainworlds is to simply assign them UWP values appropriate to their position in the system. The referee should feel free to place non-mainworld societies wherever they are likely to be interesting or relevant to the Travellers' activities.

WITHIN THE THIRD IMPERIUM

In the Third Imperium universe, most worlds are self-governing but the Imperium has jurisdiction over the space between them. The status of possessions such as mining installations on a non-mainworld can vary. Technically, any unclaimed territory not part of the mainworld belongs to the Imperium, but by long-standing tradition a credible claim to territory elsewhere in its home system put forward by a member world is likely to be honoured.

To be credible, a claim must be reasonable and enforceable. A low-tech world that can only just manage to build railways cannot make a reasonable claim to the mineral resources of a gas giant moon in the outsystem, but a world that has access to vessels capable of reaching the claimed site and which can build a suitable installation there could do so. Territorial claims are processed by local Imperial authorities and in the case of a dispute the local mainworld government is almost always given precedence. However, blanket claims to whole planetary bodies or entire star systems are rejected, and it is quite possible for independent concerns to own large amounts of real estate in a star system.

In a few rare cases, what started out as an independent installation might grow into what amounts to a small state in its own right. It is more common for such offworld territories to fall under the jurisdiction of the mainworld government or remain possessions of a parent body such as a mining corporation, but sometimes a moon or even a whole planet can become a state in its own right. If so, the secondary government is normally granted membership of the Imperium but does not have the same territorial rights as the native government. This situation is quite rare, however; most non-mainworld populations are quite small and take the form of a city-state within the Imperium rather than a member world.

OUTSIDE THE IMPERIUM

Other interstellar polities may follow the same model as Imperial authorities, but where there is no over-arching political body the situation tends to be a free-for-all. World governments with the capability to enforce

territorial ambitions often claim their entire home system as sovereign territory and may fight to defend it even if this means an apparently pointless conflict over a scrap of rock in the outsystem. Others negotiate a lease, often at a token price for the sake of form. Governments that do not have the ability to send armed space vessels to their outsystem may still claim it, but such declarations are unenforceable.

It is quite possible for a free-for-all to exist, with multiple micro-states existing throughout the system. These are often of an economic nature, in which case cooperation is common, but some micro-states are highly isolationist or part of a political organisation based outside the system. The situation can become highly complex where some bodies in a system are part of an alliance based elsewhere, some are part of a local economic organisation and others just want to be left alone or at least remain independent.

As a rule, even where a system contains multiple independent settlements there will be hubs of commerce which tend to prosper to a greater degree than other communities. Often the system's mainworld is the primary centre for commerce and equipment supply, serving the independent outsystem communities and making money off them even if it does not control their actions. This is not always the case however; a major mining installation operated by a large corporation may receive more interstellar traffic than a backwater mainworld, with the mainworld acting mainly as a source of fresh food and a place to take vacation time outside a sealed environment.

TYPES OF NON-MAINWORLD

In general, the most habitable planet in a system becomes its mainworld. It is uncommon, but not unknown, for there to be more than one habitable world in a system, but as a rule most non-mainworlds are located outside the 'warm zone' of the system and require life support equipment for human habitation. It is this expense, as much as anything else, that dictates which planet in a system is colonised and which are, at most, used for resource extraction.

Hot Zone Worlds

Worlds located closer to the primary than the mainworld receive more stellar energy and are difficult to colonise, though may possess good mineral resources. Those close to the inner fringe of the warm zone may be relatively welcoming, often possessing an atmospheric envelope with an exotic gas mix that requires less protective equipment than hard vacuum or trace atmospheres. Those closer to the primary will tend to be small and have little in the way of atmosphere. Any water present will be deep underground or locked as exotic compounds. There are exceptions, of course; gas giants and super-earth worlds are known to exist very close to stars.

Life, at least in the conventional sense, is unlikely to exist on a hot-zone world due to extreme conditions. Many planets in this zone are tidally locked, with a 'bright face' always facing the primary and a 'cold face' in eternal night. Between the two is a 'twilight zone' which is less extreme in its conditions, and it is usually here that installations are built. The twilight zone can be quite turbulent on worlds that have more than a trace atmosphere.

The economic advantage of exploiting hot-zone worlds is that they are closer to the common mainworld locations than outsystem resource sites. Getting ore or minerals to market can still be a problem when the planets' orbits place them on opposite sides of the star, but as a rule transit times are still lower than hauling all the way out to an outsystem rockball.

Hot zone worlds may have any Size code, tending to be smaller the further they orbit. Atmosphere is likely to be exotic if present at all; otherwise hot zone worlds tend to have at most a trace atmosphere. Hydrographics are almost certain to be zero for inner-orbit worlds but can have any value on worlds that have an atmosphere.

Warm Zone Non-Mainworlds

If there is more than one planet within or on the fringes of the system's warm zone, the best prospect usually becomes the mainworld and the other – in rare cases multiple others – will be secondary colonies. However, not all warm-zone worlds are suitable as mainworlds. Hell worlds with an extremely hostile environment are too expensive or sometimes just plain impossible to colonise. Some hell worlds seem quite inviting, only to hide some deadly secret not apparent in an orbital survey. Examples include changeable conditions or extremely dangerous local wildlife or plant species.

Other worlds in the warm zone may be unsuitable for a lack of resources, or may have been passed over for colonisation because they did not suit the needs of those wanting to exploit the system. For example, if a system was colonised for mineral extraction purposes, it would make more sense to set up a major colony at the best starport location or most resource-rich world in the system. An entirely habitable world might be passed over as uneconomic or settled by a few farmers to act as a breadbasket for the industry and extraction operations going on elsewhere.

However, as a rule, if a world is located in the warm zone and is not the mainworld, there is usually a good reason why people do not want or cannot afford to live there. Corrosive atmospheres, lack of useable land, violent tectonics and all manner of other natural reasons could make a warm-zone world a bad prospect.

Rockball Worlds

The majority of outsystem worlds are rockballs, with no atmosphere or only a trace of one. Such worlds are highly unlikely to have life of any sort if there is no water or gas to support respiration or its equivalent. Rockballs vary in size and character; some are highly volcanic or have significant mineral deposits; others are simply lumps of rock orbiting a star. A rockball may have water locked up as ice or in deep underground cisterns, which make it a little easer to colonise, but otherwise such worlds are as uninviting as they are common.

Rockball worlds have no protection against micrometeorites, and are usually pocked with large craters from more significant impacts. It is common to build structures in natural canyons or close to crater walls in order to obtain protection, or build the majority of a facility underground. However, the latter can be expensive and is typical only of permanent settlements. Mining camps that will be moved eventually tend to be erected where convenient to reach mineral or water deposits.

As a rule of thumb, for a rockball world to be inhabited there has to be a reason to build a community there. Supporting people in such an environment is very expensive, so unless there are scientific, political or economic gains to be made, those seeking a new home will look to at least marginally habitable worlds instead. The referee should bear this in mind when setting up a rockball community, and have a plausible reason

in mind. Isolationism and political freedom are perfectly acceptable rationales for such a settlement, but funding to build the colony and keep it viable has to come from somewhere. This can mean a settlement on a rockball might have an interesting backstory or be in the throes of making difficult decisions about how to preserve independence.

Iceballs

By convention an outsystem world with more than a trace of atmosphere is often referred to as an iceball rather than rockball. The distinction is a fuzzy around the edges but is useful to Travellers in many ways. An iceball will not have a breathable atmosphere – temperature conditions alone would make support equipment necessary even if an oxygen/nitrogen mix were somehow present – but the presence of an atmosphere provides at least some protection from micrometeorites and will allow useful gases to be extracted. Many exotic gas mixes found on iceball worlds contain oxygen and hydrogen, allowing air and water to be processed out of them. This in turn makes supporting a colony or installation much easier.

Iceball worlds present challenges of their own however. The atmosphere could be of an actively dangerous type, and even if it is not, the interface between installation and the outside will be more complex. On a rockball, all that is necessary is to seal the inner atmosphere inside; an iceball requires flushing airlocks of potentially toxic gases and possibly decontamination of suits and equipment that have been outside. Although air and water can be obtained from the outside environment, some of this has to be used to protect the installation from the effects of exterior conditions.

Super-Earths

Super-Earths are terrestrial (rocky) planets that are much larger than Earth. They cannot occur in the standard mainworld generation system, largely because a planet of this size makes a very poor prospect for settlement even if it has the right temperature and atmospheric conditions. If a super-earth is desired or indicated by random determination, its Size code can be noted as S. Diameter can be determined on a roll of 1D+12 multiplied by 1,600km, giving a maximum of 28,800km. Larger planets are possible, and are sometimes termed super-earths but are more commonly considered miniature gas giants rather than terrestrial planets as their composition tends to be more gaseous as size increases.

Surface gravity on a solid super-earth is likely to be in the 1.5g-1.8g range, and conditions extreme. Most will have an extremely dense exotic atmosphere. It is possible for humans to live and work in such an environment, but equipment to support even the simplest activity is expensive. Super-earths are thus unlikely to be permanently settled.

GAZELLE CLOSE ESCORT

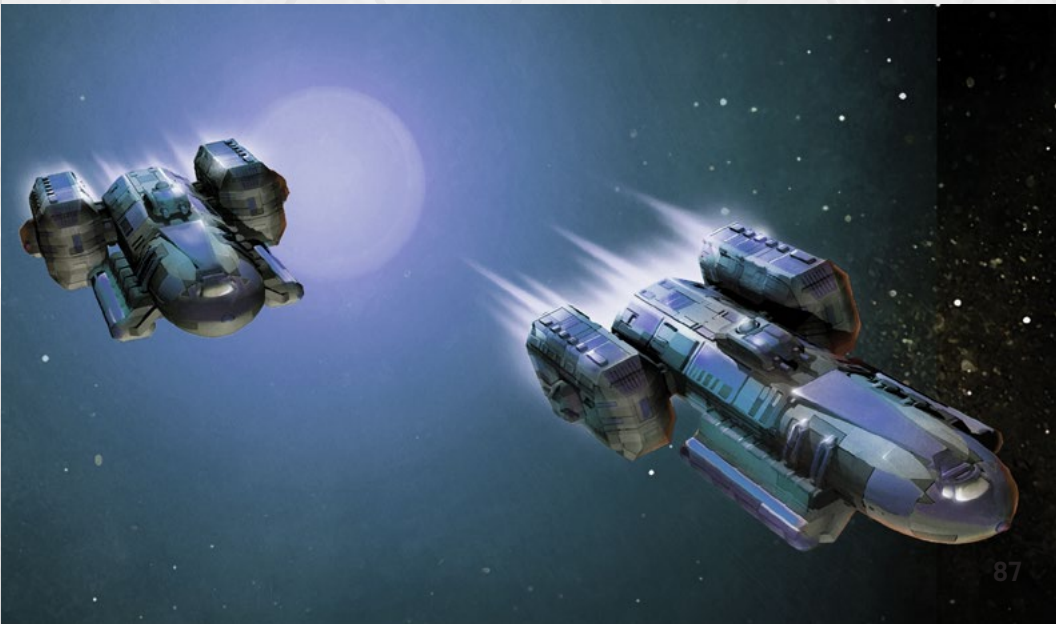
The Gazelle-class Close Escort is a ubiquitous workhorse of the Imperial Navy, and also in service with a number of private concerns as a pirate hunter, escort-for-hire and route-protector. The following information is generally available from any data terminal.

GENERAL SPECIFICATIONS

Imperial Navy doctrine calls for large ships to be accompanied by well-armed, small fighting craft capable of engaging the enemy at long range, before they can approach the principal ships in a task force or convoy. These small ships may be fighter craft carried by the larger vessels, or independent close escort vessels. Thousands of close escorts of various types have been built in the past several centuries, and hundreds have been built in the Gazelle class.

ENTRY POINTS

Gazelle class ships have several points of entry. Normal points are the forward airlock, the gig hatch, and the ceiling hatch adjacent to the bridge. Unusual points of entry include maintenance panels on the drive modules, access panels on both the barbettes, and the sensor scanner domes on the nose of the ship, which requires the domes be dismounted or broken into. In addition, the triple laser turrets each have access panels on their rear faces, but these do not lead into the ship interior.



Both the gig hatch and the ceiling hatch are crouch locks; small air locks with double hatches or doors mounted very close together. Ordinarily, such passages are used for mating ships and direct passage between them. They may be used for direct access to vacuum without evacuating an entire area.

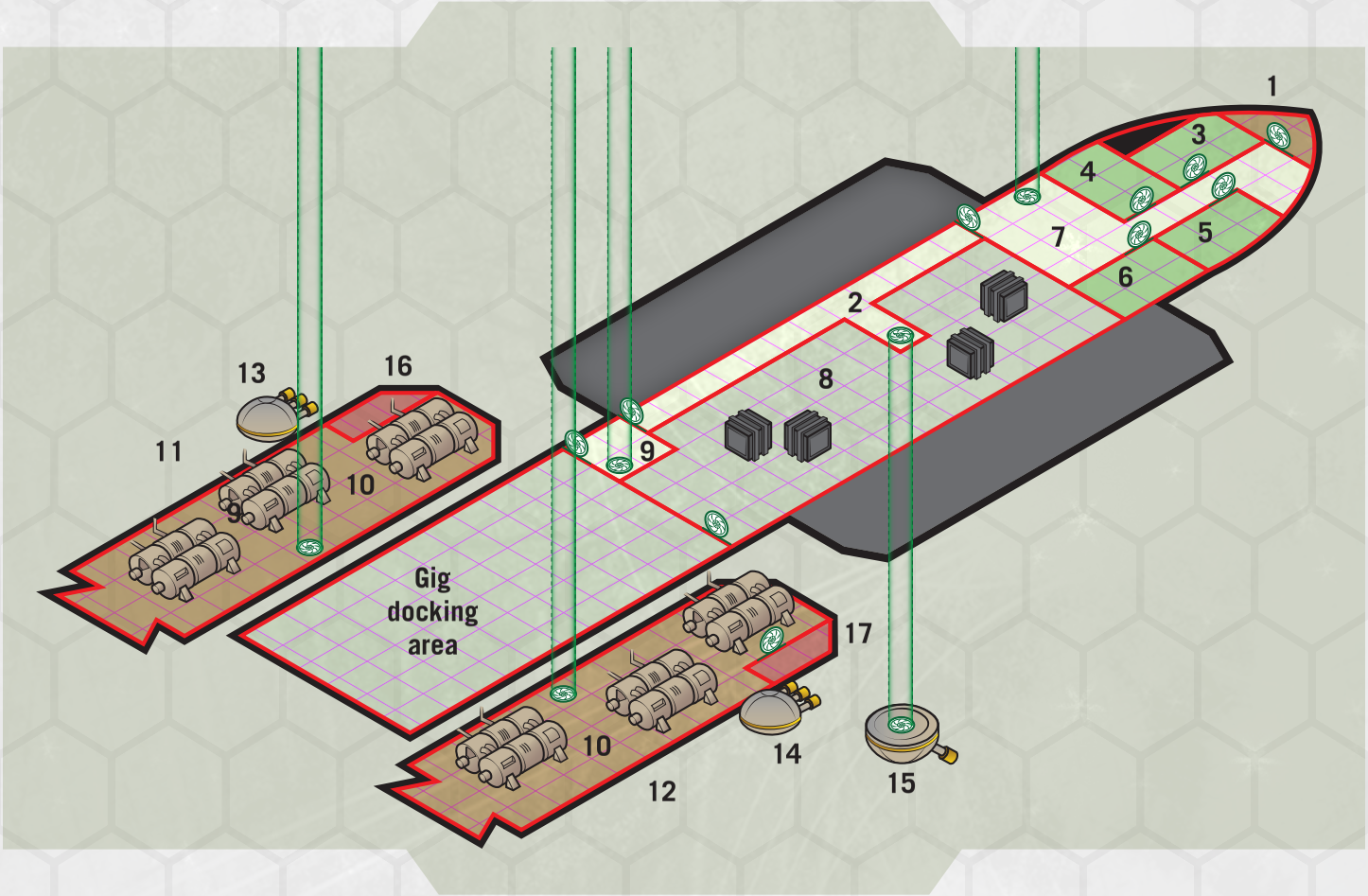
SHIP INTERIOR (VARIANT)

The interior of the ship is divided into a lower deck level, upper deck level, two barbettes, and a gig.

Lower Deck Level

The lower deck level is predominantly crew quarters and cargo hold.

1.	Avionics Section containing deep radar, communications equipment, scanners, and detectors.
2.	Connecting Corridor with light and power consumption recorders.
3.	Crew Stateroom for one gunner and one drive room technician.
4.	Crew Stateroom for one gunner and one drive room technician.
5.	Crew Stateroom for one gig pilot and one drive room technician.
6.	Crew Stateroom for two gunners, one of whom is the chief gunner.
7.	Common Room for crew members, generally used for off duty or for training classes.
8.	Cargo Hold. Interior includes shelving and storage bins, and is generally devoted to food and supply storage. The long narrow portion contains a dumbwaiter to the galley above.
9.	Passage. This area allows activity for gig docking and personnel transfer.
10.	Jump Drive Room.
11.	Port Drive Module with one power plant and one manoeuvre drive.
12.	Starboard Drive Module, with one power plant and one manoeuvre drive.
13.	Triple Laser Beam Turret with interior position for gunner.
14.	Triple Laser Beam Turret with interior position for gunner.
15.	Ventral Barbette located forward and accessed from hatch at location 2.
16.	Port Vent Maintenance Area to allow cleaning and maintenance for the power plant discharge vents. Accessible from inside or from outside.
17.	Starboard Vent Maintenance Area. Similar to location 16.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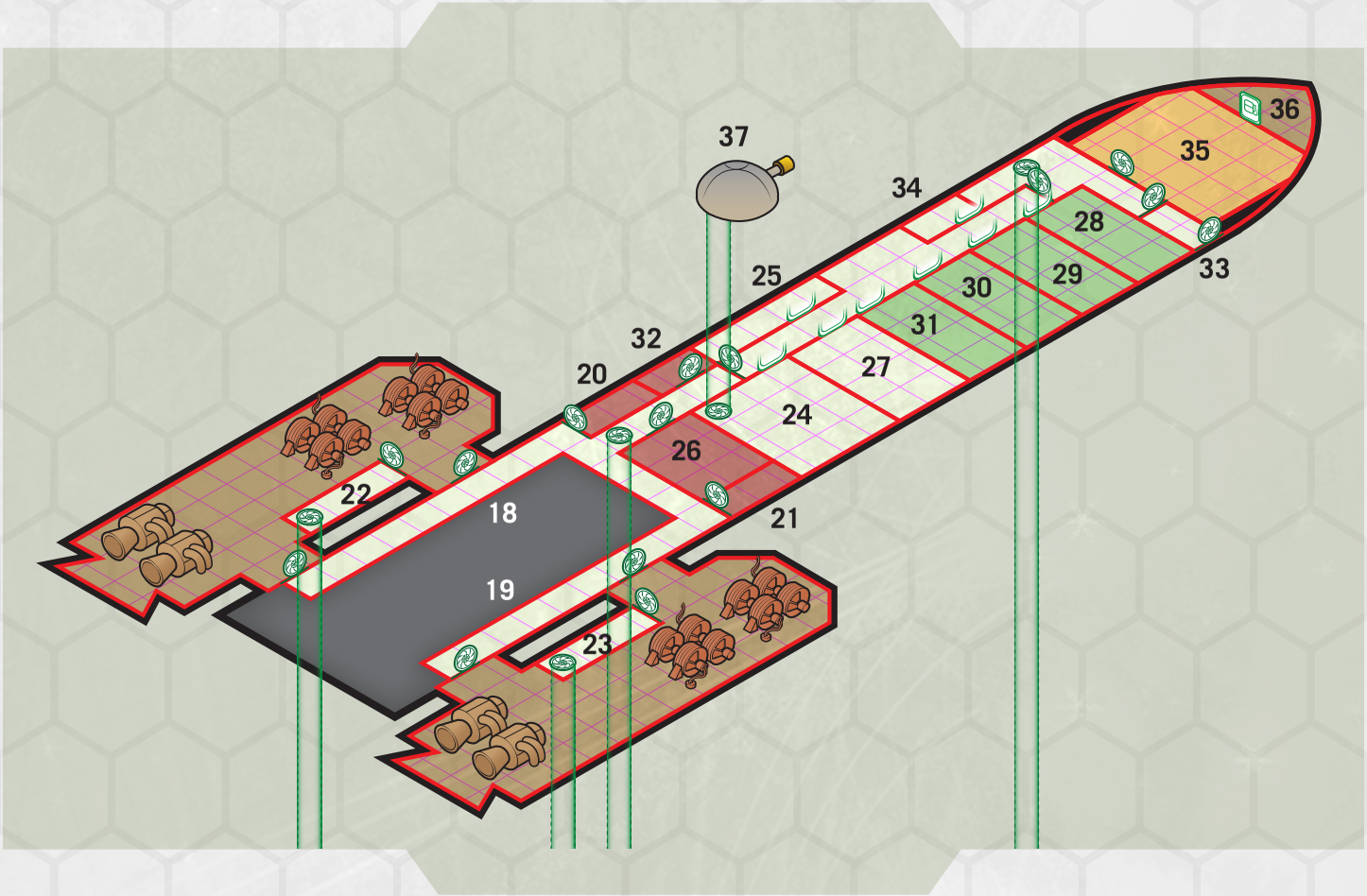
17
Gig
docking
area

Upper Deck Level

The upper deck level contains the bridge, officers' quarters, the galley, and sickbay.

18.	Corridor allowing access to and operation of the port drive module.
19.	Corridor allowing operation of the starboard drive module.
20.	Port Nuclear Damper.
21.	Starboard Nuclear Damper.
22.	Corridor allowing access to and operation of the jump drive.
23.	Corridor allowing access to and operation of the jump drive.
24.	Ward Room for meals and leisure.
25.	Galley for meal preparation.
26.	Sick Bay.
27.	Officer's Lounge for the privacy of officers in their leisure time.
28.	Command Pilot's Stateroom.
29.	Navigator's Stateroom
30.	Chief Engineer's Stateroom.
31.	Medic's Stateroom.
32.	Model/3 Computer Room.
33.	Air Lock.
34.	Ship's Locker.
35.	Bridge with acceleration couches for command pilot and navigator.
36.	Forward Avionics Area.
37.	Dorsal Barbette with access via the ceiling hatch in location 24.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The Gig

The gig serves as a lifeboat for the ship, and access to world surfaces.

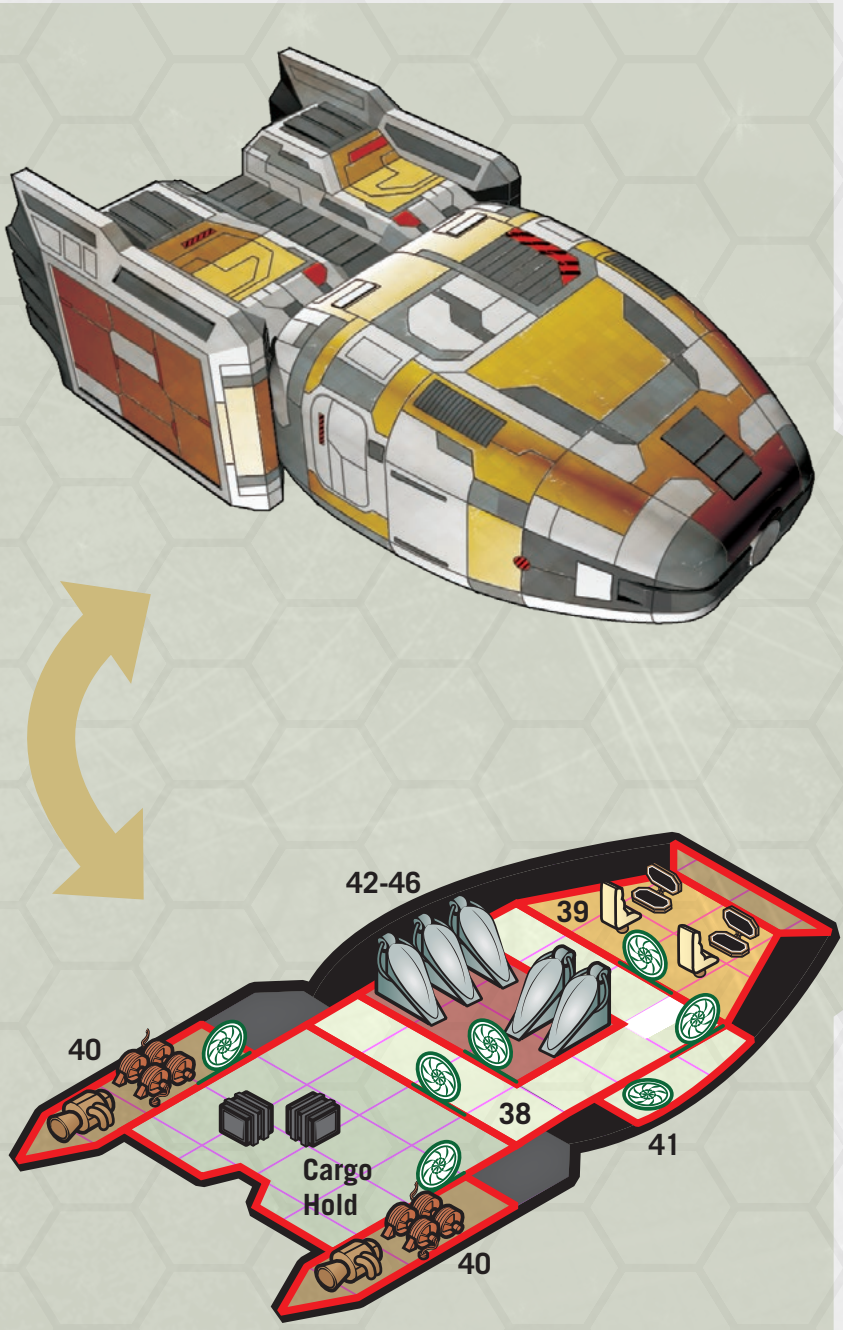
38.	Corridor within the gig.
39.	Bridge with acceleration couches for pilot and gunner.
40.	Drive Room.
41.	Air Lock. Note that the hatches open both up into the ship, and down for exit when on a surface.
42 - 46.	Low Passage Berths. These berths can be used by conscious passengers, one per berth, or as low passage berths with two person in each.

Liquid Hydrogen Tanks

The two longitudinal fuel tanks of the Gazelle are engineered to be droppable in extreme circumstances. The ship has high capacity accumulators in its jump drive, and can completely burn its fuel prior to jump, storing the energy while the tanks are then jettisoned. The decrease in tonnage for the ship results in greater efficiency, and the ship can jump farther. Additional fuel tankage within the ship allows manoeuvre, but the tanks must be replaced before the ship can again jump.

Minimum Crew

Although the ship has a crew of 12, it is possible for it to function with fewer personnel. Minimum crew is four; a pilot (who doubles as astrogator), a chief (doubling as medic), and two engineers, who may also function as gunners. Someone aboard must be capable of operating the gig. In the face of crew casualties, the ship can operate with a crew of two – pilot and engineer – long enough to limp away from a conflict zone.


42-46
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38
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Cargo
Hold
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THE FLORIAN LEAGUE

When the Ancients departed from the galactic scene 250,000 years ago they left the remnants of their advanced civilisation on hundreds of worlds. High-tech ruins, strange artefacts and disconnected Droyne and Chirper societies lay scattered throughout Charted Space. Perhaps most fascinating of all are the dozens of uplifted and genetically engineered strains of Humaniti and other species they left behind.

Most human subspecies were derived from Terran stock, creating the Vilani and Zhodani. However, there is one strain that appears to be unique among them. The Floriani are essentially an entirely new species created by using the human genome as a template with several notable changes.

The dimorphic homo sapiens floriansis consists of the Barnai, small and physically weak but gifted with a superior intellect, and the Feskal, large, strong and highly adaptable. They are so different in size and appearance that one might think they came from two different genera, yet scientific studies have shown the two share over 99% of the same DNA.

PHYSIOLOGY

Barnai and Feskal physiques are quite different from each other but one trait they share is number of digits: Floriani hands have three fingers and an opposable thumb. They also have four digits on their feet.

The average Barnai is 150cm tall and weighs 35 kg. Barnai have small frames and enormous heads containing their prodigious brains. Their bone composition and density is identical to that of homo sapiens but skeletal system is compact and more economically distributed within a smaller trunk. Barnai skin is hairless and of light complexion. The Barnai lack much in the way of athleticism and physical activity is limited to what is absolutely necessary. The subspecies is not known to engage in excessive consumption of food or drink, making obesity extremely rare. Having become accustomed to the assistance of the Feskals, they do little that requires exertion.

The Barnai seem to have been designed with a ‘one size fits all’ approach. Barnai are sterile and have only one androgynous gender. They are grown from the bioengineering vats of their homeworld and while they have vestigial sexual organs, perhaps an oversight by their designers, the Barnai do not reproduce sexually. There is little variation in their features and characteristics. Indeed, it is often difficult to tell them apart which can cause awkward moments when members of other species fail to distinguish one Barnai from another. The Barnai are highly vulnerable in

dangerous or challenging environments but that is where their enormous cohorts, the Feskals, come into the picture.

Feskals average 200cm in height and typically weigh 110kg or more. Feskals have massive frames with immense musculature, particularly in the shoulders, upper back and upper legs. Their frames appear top-heavy but are exceedingly well balanced. The Feskal brow protrudes over deep-set eyes, providing natural protection from intense light and dust.

The Feskal are highly adaptable to a wide range of environments. For example, Feskal who live on frigid worlds grow copious amounts of body hair to provide warmth and protection from the cold, while those on hot or desert worlds grow no hair at all and have adaptive thermal systems to help exhaust excess heat. In addition, Feskals are equally comfortable and nimble on both small planets and massive 'super earths'.

Feskals can perform great feats of strength and endure extreme levels of physical hardship. Their brain size and complexity is typical for a human but their cerebrums, where the majority of the reasoning centres are present, have fewer neural pathways and less variation between the two hemispheres. Unlike a typical human brain, Feskal hemispheres are laterally oriented so the right controls the right side of the body and the left controls the left. The lack of contralateral organisation is attributed for their inability to think creatively, which seems to serve them sufficiently considering they rely on the Barnai to do most of their decision making anyway.

Feskals, like their Barnai masters, were initially manufactured on Floria and have asexual, if seemingly masculine, traits. However, isolated Feskal populations have shown the ability to develop male and female sex organs and exhibit fecundity when the survival of a population is at stake. For examples of this, consider the subterranean population on Trossachs, the lost colony on Vorn, and the feral population on the Hierate world of Ouiyloi. All three populations spontaneously developed the ability to reproduce when cut off from Floria.

There is some dispute among xenopaleontologists about whether or not Feskals were developed on low-gravity Floria. Imperial scientists from the research station on Dostoevsky have postulated that while the common genome of the two Florian subspecies was manufactured on Floria, the nascent Feskal must have been taken to Tanar for further development. The fossil record on Tanar seems to substantiate this but the theory has yet to be subjected to rigorous testing.

A BRIEF HISTORY

The Floriani experience was different from that of other humans uplifted by the Ancients. Most were left with virtually nothing and had to rebuild their civilisations from scratch but the Ancient machines on Floria were left largely intact, enabling them to maintain a high-technology society. The Floriani had only a rudimentary understanding of how the machines worked but tended to them as best they could. Many broke down over the eons, forcing the Floriani to reinvent such things as agriculture and industry.

Their first contact with offworlders was with the Sindalians who engaged in trade with the Florians for decades before their own empire began its fateful decline. A few centuries later the Floriani encountered the Aslan, whose reach extended to Floria in -170. The Aslan had by this time seen many Ancients ruins and were amazed by what they found on Floria. As ihatei, the Aslan began to create permanent habitations on the Florian homeworld but were quickly rebuffed. The conflict was a bloodbath, taking the lives of hundreds of Feskals and killing nearly every Aslan who took part in the expedition. The survivors returned to the trans-rift colonies with the knowledge that dangerous human foes were to coreward.

After allegedly discovering jump-drive technology from crashed Aslan starships, the Floriani began to cautiously reach out to neighbouring star systems where they established colonies. More than three centuries passed before the Floriani engaged in meaningful contact with outsiders. An independent trade mission from the Imperium reached them in 171 and the Imperial Interstellar Scout Service made contact in 185. The Floriani initially welcomed the traders but closed their doors to them in 200 after being contacted by the Zhodani on their spinward frontier.

As they cautiously branched out to more star systems, the Floriani discovered the remnants of Terran and Sindalian colonies and peacefully incorporated them into their society, treating them as they would Feskals. Many of these populations persist to the present day, forming subcultures that exhibit aspects of their Terran origins mixed with the conservative and introspective ways of the Florians.

The task of managing their growing empire became more challenging over time and in 506 they established the Florian League, designating the Council of the Stars to govern it. Shortly thereafter, the Florians cut off trade with the Zhodani and opened it once again with the Imperium. At some point in the late 900s, the Florian League began to recognise the threat posed by the Aslan who were now encroaching upon their rimward border. The Floriani built defensive structures and starship fleets in an effort to create a buffer zone for their homeworld.

The Florians have fought several wars with the Aslan, almost all of which have been caused by Aslan aggression. The only wars started by the Florians have been to regain lost territory. Currently they find themselves in a period of retrenchment, building up defences on their shared border with the Hierate and engaging in trade with the Imperium through the interface world of Yggdrasil.

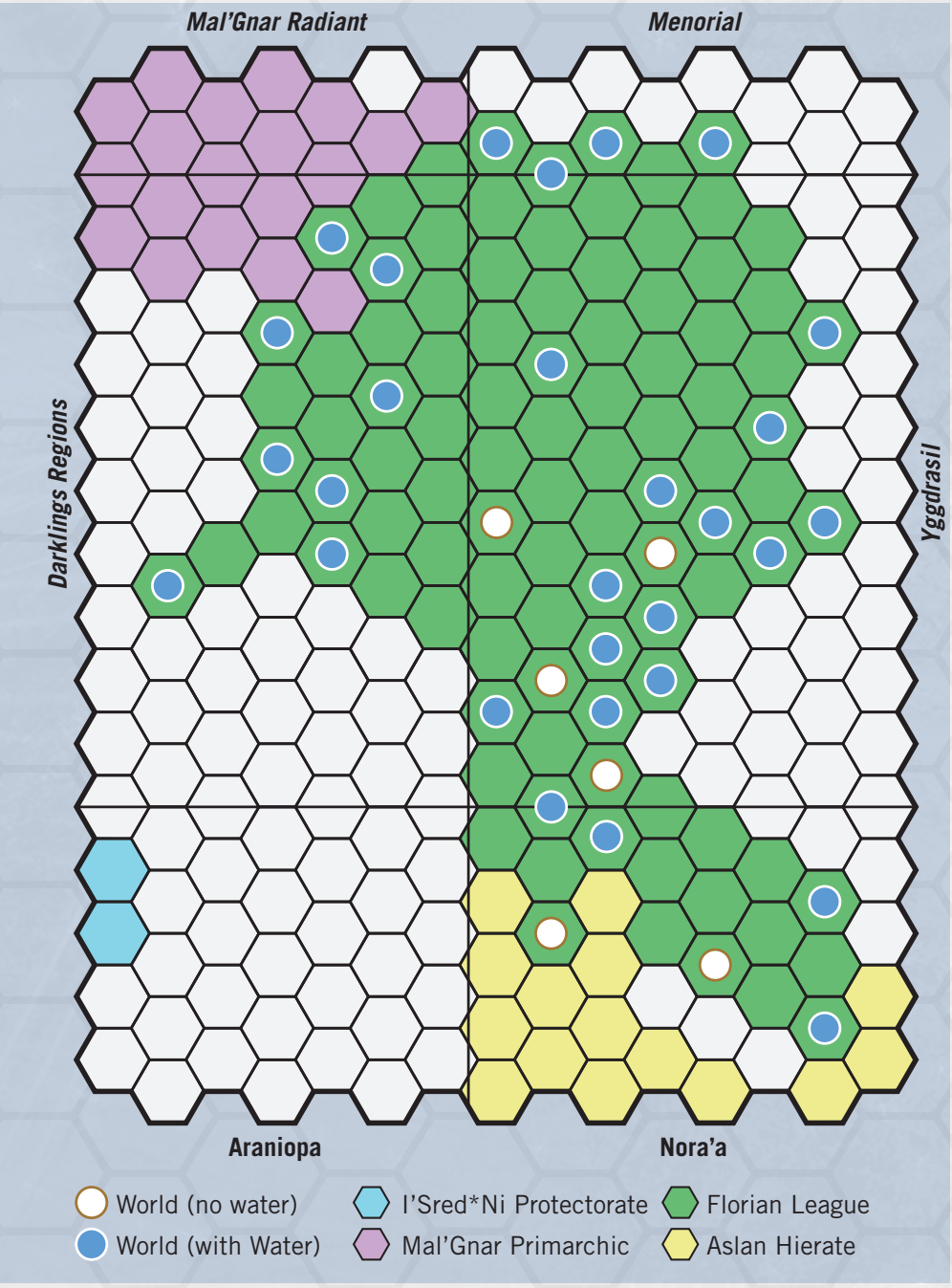
CULTURE AND PSYCHOLOGY

Despite the lack of physical variation among the Barnai, they exhibit a great deal of independence and creativity, perhaps too much given the haphazard and slapdash methods they employ to solve problems. Groups of Barnai often engage in spirited debates about how to address one issue or another. When the Floriani encounter a problem, they investigate it, meticulously collect evidence and then debate it, sometimes ad nauseam, until a viable solution appears. This intellectual method of tackling problems seems to have been programmed into the Barnai, perhaps intended to serve as capable assistants to the Ancients.

Despite the fact that they possess an interstellar empire, the Floriani completely lack interest in the act of empire building. Everything they do is ultimately to protect and preserve their homeworld, an adaptation doubtless programmed into them by the Ancients. Despite the unlikelihood that the Ancients will ever return, the Floriani trudge on, caring for the technological

FLORIAN LEAGUE

The Beyond/Trojan Reach Sectors



wonders they inherited as if they might one day resume the work they were designed to do. They man the oars of a ship that has lost its captain.

Given over to the fulfilment of duty, Florians lead lives wonderfully bereft of ambition but full of purpose. Just what that purpose might be is a great mystery but this is of little importance to them. They are completely and unequivocally engaged in the industry of securing their homeworld and rarely notice the random observations and judgments of outsiders. Had they the capacity for it, the Florians might even pity offworlders, consumed as they are by a void of true purpose in their lives.

Innovation is lacking in the Florian League, but this is of no more consequence to them than the loss of a vestigial organ or unneeded fifth digit on their hands. The League always seems to obtain what it needs and when it needs it from the Ancients machines on Floria.

GOVERNMENT AND LAW

Florian government is conducted by councils comprised of Barnai officials who are elected by lottery. If selected, a Barnai serves for a term of four years at the local, planetary or League level. Governing a star-spanning polity is a complex business and elected Barnai spend the majority of their terms merely learning the job. Barnai councillors have only just acquired the qualifications to govern by the end of their brief tenure. The true task of governing is performed by ex-councillors constantly called upon to advise those Barnai in governmental service. It is an odd arrangement but has enabled them to both protect their homeworld and expand their reach without ever truly meaning to do so.

The transient nature of Floriani government often results in the partial completion of major projects. By the time government service has ended for one Floriani, most projects they may have fostered have not been brought to fruition. The next wave of councillors is then elected and a completely new slew of policies is implemented. The result is a patchwork of partially completed projects, few of which address the problem or challenge they were meant to handle. Look no further than the ecological disaster on Trossachs for an example of bad governance. The Council of the Stars agonises over impending disaster on the planet but the transitory nature of Florian government lacks the ability to effectively manage it. As soon as one solution has begun to be implemented, a council is retired and a new one brought on board with its own ideas.

Law Levels are low on Floriani worlds with few exceptions. Barnai and Feskal were designed to work together and there is little in the way of social strife among them. Disputes are almost universally settled without involving litigation but when a dispute occurs that must be settled in an official manner, a judge and jury of five investigate the claim to determine if what was done constitutes a crime. The Floriani have very loose notions

VADADA AND ITS MOON, JARNO

of the concepts of crime and punishment, instead focussing on the act itself to determine if it was justified.

THE FLORIAN TRIAD

The Florian League currently consists of 34 star systems. Three of those systems are of exceedingly great importance: Floria, Trossachs and Vadada.

Most empires are built upon solid foundations and careful planning. Well-defended capitals are surrounded by strategically placed resources, industrial centres and military bases. Fortresses and fleets defend the frontiers. Not so with the Florian League.

As the League began to expand and Floria's bioengineering facilities created ever more Floriani, the Council of the Stars recognised the overwhelming need for two things: industrial goods and defence.

Trossachs became the industrial engine of the Florian League where over 90 percent of its basic goods are manufactured and disseminated among the other worlds. Vadada, located precariously on the League's periphery, became its primary military base and shipyard. Unfortunately, both Trossachs and Vadada have been threatened time and again by Florian

incompetence. The impending ecological collapse of Trossachs could very well threaten the League's ability to provide for the worlds of its empire and Vadada has historically found itself constantly under siege from the Hierate and Glorious Empire.

As vulnerable as the triad appears to be, it has withstood the test of time. Whenever one member of the triad is threatened, the Florians seem to be able to pull some sort of deus ex machina from the Ancients machines to save them from utter annihilation.

STARSHIPS

Florian starships are highly advanced, achieving TL14 with many TL15 prototypes in service. Their spacecraft are blocky utilitarian monstrosities, most bristling with weaponry. Their naval ships are designed to fight asymmetric wars by overwhelming enemies with force followed by orbital bombardment, nuclear warfare, or even biological attacks if need be.

When entering a Florian star system, Travellers can expect to receive a signal from a fast interceptor, essentially a high-speed system defence boat with breaching tubes and forced linkage apparatuses. Travellers are advised to establish communications with these ships quickly to ensure no misunderstandings occur.

Merchant and other craft exhibit the same disregard for aesthetics. They are completely devoid of comfort and elegance, and constructed only for the task at hand. Traders have immense cargo holds and few accoutrements for passengers. Scout ships are overloaded with redundant sensory equipment, and unnecessary armour and armament.

CHILDREN OF THE STARS

Created to assist the Ancients and left to their own devices, the Floriani find themselves in a state of developmental stasis. They were gifted with civilisation and high technology by the Ancients but lack the capacity for innovation to exploit the immense well of knowledge at their disposal.

Like children serving an absent paternal master, the Florians tend to their worlds in a bumbling, naïve fashion, overbuilding defences, wreaking ecological disasters, and engaging with their neighbours in stumbling, awkward fashion. They move neither forward nor backward but do not lack a common purpose. Barnai and Feskal work together amiably to preserve and protect the homeworld that has fostered and protected them for hundreds of thousands of years.

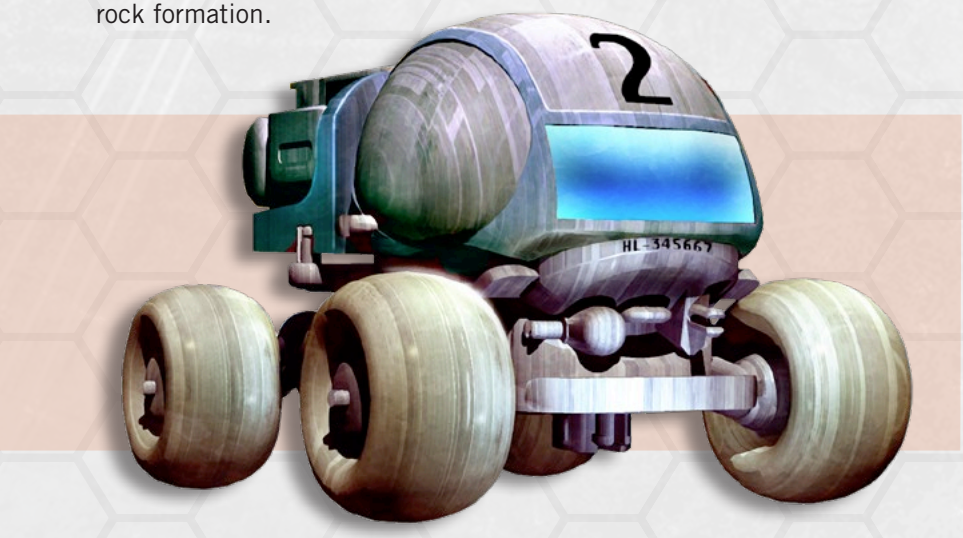
GROUND VEHICLES

SPLORABUG

The vehicle almost universally known as a Splorabug has a variety of official designations. Variants on the concept are sold by several companies seeking to dominate a particular segment of the market. The Splorabug (Explorer Buggy) consists of a rectangular equipment block with a bubble-like canopy on the front. This is pressurised and can support a 'shirtsleeves' environment but has no airlock; personnel commonly wear vacc suits with the helmet off to operate the vehicle and 'button up' to go outside.

The vehicle has an extensive sensor and electronics fit, which can be tailored to various missions, but has virtually no cargo capability other than tools and sample bags fastened to its many external racks and holders. The fuel-cell power plant is designed for long journeys at slow speeds over rough terrain, driving four large balloon-tyre wheels that can clamber over surprisingly large obstructions. A Splorabug will float on water and can propel itself – albeit very slowly – by the rotation of its wheels.

Perhaps the most attractive feature for many users is the heavy protection a Splorabug offers against meteorites. It is well-armoured all round – capable of defeating heavy machinegun fire from any direction – with particularly heavy armour on the upper surfaces. This makes the Splorabug popular with prospectors and explorers operating on rockball worlds. It is not uncommon to find examples with the second crew position replaced by yet more electronics, sometimes specialist gadgets invented for the purpose of finding a particular mineral or rock formation.



SPLORABUG

Armour	
Front	16
Sides	20
Rear	16
TOP	30

Traits

ATV

TL	10
Skill	Drive (wheel)
Agility	+2
Speed (cruise)	Medium (Slow)
Range (cruise)	1500 (2250)
Crew	2
Passengers	-
Cargo	-
Hull	24
Shipping	6 tons
Cost	Cr 169 000

Equipment	• Autopilot (enhanced), • Communications System (improved, satellite uplink, increased range), • Control Systems (enhanced), • Fire Extinguishers, Hostile Environment, • Life Support (short term), • Navigation System (improved), • Sensors (advanced, increased fidelity, increased range), Smart Wheels

Equipment	
Autopilot (skill level)	2
Communications (range)	5000 km
Navigation (Navigation DM)	+2
Sensors (Electronics (sensors) DM)	+2
Camouflage (Recon DM)	-
Stealth (Electronics (sensors) DM)	-

TALSON AUTOMOTIVE 'CHALLENGER' GROUND CAR

According to the rather aggressive marketing by Talson Automotive, their Challenger ground car is intended to challenge the notion that grav vehicles are better than ground. Marketed as a 'prestige performance and security' vehicle, the Challenger is aimed at executives and celebrities who value comfort as much as high speed, and might someday have to escape an assassination attempt… or who want everyone to think they are important enough to worry about such things.

With a top speed of well over 700kph on a test track, the Challenger is certainly quick. However, no amount of electronics will permit a car to reach such speed on normal roads. Enthusiasts talk about top speeds but what really matters is the ability to reach 200kph within seconds of a standing start. The only way the Challenger can do this is to use variant Smart Wheels. Rather than being optimised for rough terrain, the wheels are designed to maintain traction and permit braking, steering and acceleration under conditions that would send a lesser vehicle careering off the road. Of course, at 200kph an average city street might well be considered rough terrain…

The electronics fit includes a highly advanced auto-drive feature which is set at the factory to take over and save the vehicle if the driver exceeds the limits of rationality. For an extra Cr25000 (and a signed waiver), the manufactures will fit a cut-off that allows the user to manually disable the auto-drive with an ostentatious flick of a finger. It should also be noted that the purchase price includes around Cr100000 of cosmetic touches, with additional options adding up to Cr250000 more. The entertainment system and contents of the wet bar both come in at Cr50000 each… and an upgrade package is of course available for those who consider 120-year-old Scotch to be a 'base model' feature.

CHALLENGER GROUND CAR

Armour	
Front	4
Sides	4
Rear	4

Traits

-

TL	12
Skill	Drive (wheel)
Agility	+2
Speed (cruise)	Very Fast (Fast)
Range (cruise)	900 (1350)
Crew	1
Passengers	3
Cargo	-
Hull	20
Shipping	5 tons
Cost	Cr 316 000

Equipment	• Autopilot (advanced), • Communications System (advanced), • Computer/3, • Control Systems (advanced), • Entertainment System (very expensive), • Fire Extinguishers, • Navigation System (improved), • Sensors (improved, increased fidelity), • Smart Wheels

Equipment	
Autopilot (skill level)	3
Communications (range)	1000 km
Navigation (Navigation DM)	+2
Sensors (Electronics (sensors) DM)	+2
Camouflage (Recon DM)	-
Stealth (Electronics (sensors) DM)	-

LATIEN HAULER SMALL FREIGHTER

The Latien Hauler is small by the standards of freighters, but is the largest ship many ports will ever see. Built on a boxy 2,000-ton hull, the standard version is constructed at TL10 and license-built almost everywhere. With 2g acceleration and the capability to make two consecutive one-parsec jumps, a Latien Hauler can reach most markets.

The Latien Hauler is aimed at a market niche somewhere between bulk freighting and tramp-trading. It will often be encountered on a long haul with several hundred tons of a single cargo type aboard plus an assortment of small freight lots much like those found aboard a typical subsidised merchant or free trader. It is capable of making planetary landings and can service small ports that do not see many ships of this size, though its handling characteristics in an atmosphere have been described as being 'like a pig on stilts'.

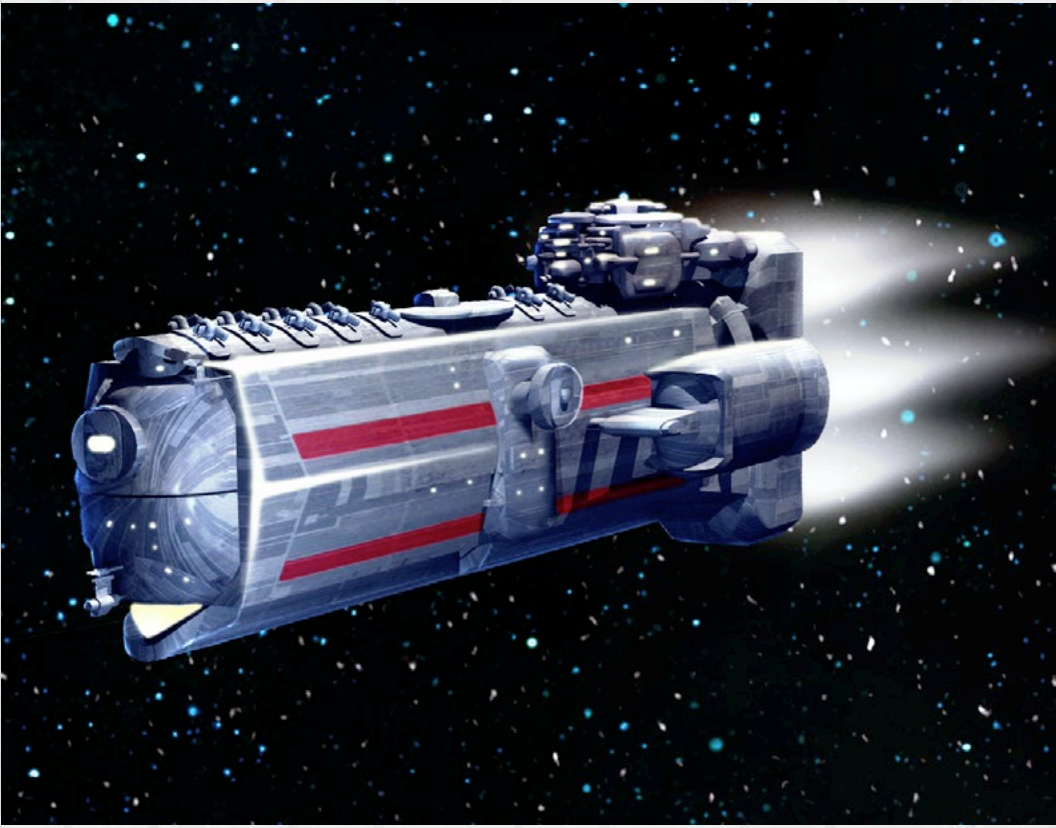
Hull form is rectangular, with a flared stern and rounded bow containing the primary cargo airlock. The cargo hold is two decks high and runs almost the length of the ship, with two additional cargo locks on the flanks. Passenger accommodation is at the stern, with a dedicated passenger airlock on the lowest level giving access to a reception and common area. Each deck has eight passenger cabins. Where the lower deck contains the main common area, the upper houses the medical bay and a smaller common area normally used by the duty steward.

All crew and control areas are aft, in an additional partial deck protruding above the line of the main hull. This area is accessed by an elevator/lift shaft running from the lowest deck, but requires crew identification to access the command/crew area. The lift opens into the small crew lounge, forward of which is the training room and bridge. Aft is a small workshop area and the engineering chamber, containing the jump drive and part of the ship's power generating machinery. The rest of the power plant is dispersed as two modules, along with the manoeuvre drive, on the flanks of the main hull. Reaching these areas is rarely necessary due to remote operations and automation; they are cramped and not designed to be accessed on an ongoing basis.

The Latien Hauler is most definitely a cargo ship rather than passenger carrier. The cabins are comfortable enough and there is adequate common space, but passengers are incidental to the ship's main business. Despite this, the ship has a decent medical bay, in keeping with its role as a reputable cargo hauler forming part of a recognised shipping line. The training facility is normally set up for piloting or astrogation revision rather

than the more robust physical and combat training aboard mercenary ships. Many a spacer started their career with on-the-job training aboard a Latien Hauler, and most shipping lines like to cross-train their personnel or offer career development to assist retention.

It is typical for ships of this type to have a 'flight' crew of two pilot/bridge personnel, an astrogator, and a captain (who is often also the astrogator), six engineering staff, and a 'deck' crew of about half a dozen multi-skilled personnel acting as stewards, medics and cargo-wranglers as needed, in addition to carrying out maintenance and administrative tasks.



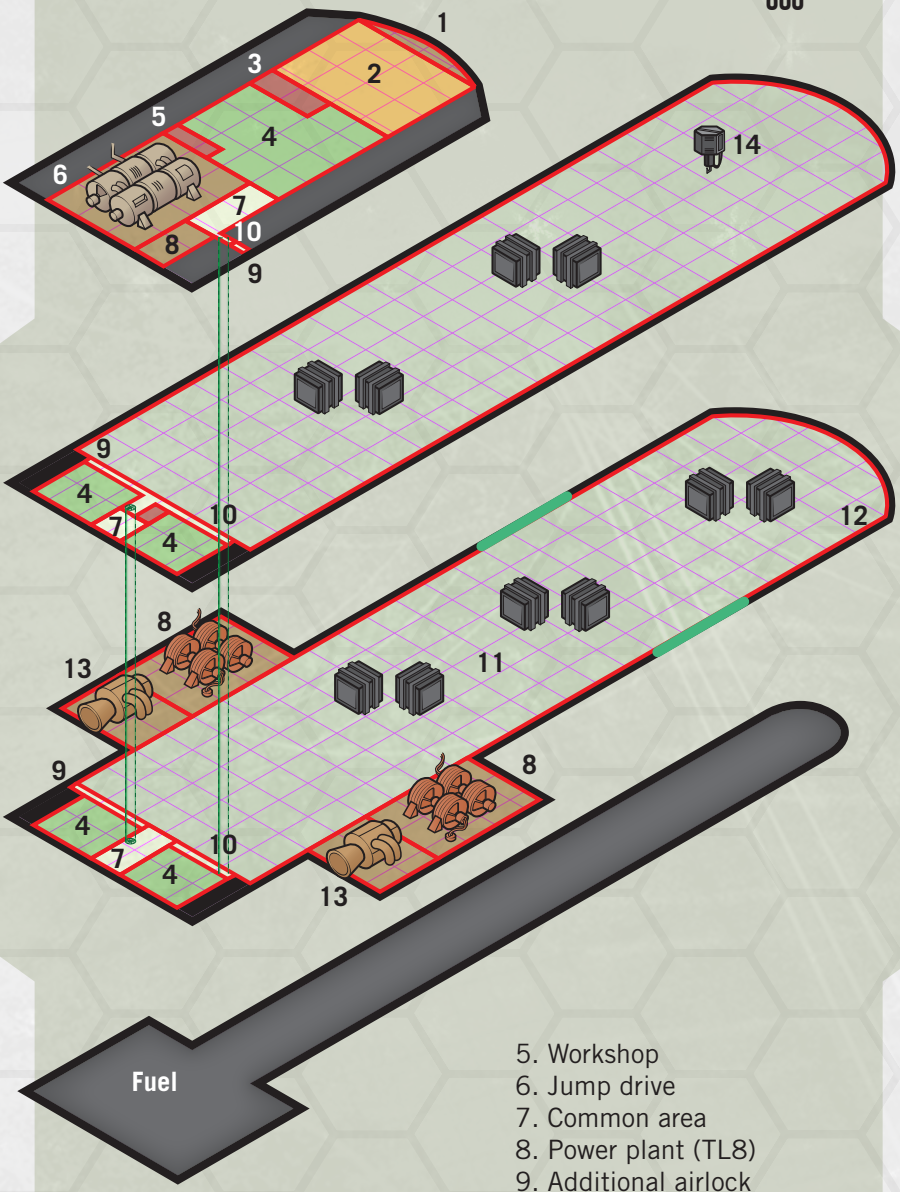
CREW	RUNNING COSTS
Captain, Pilot, Astrogator, Engineers x 6, Maintenance x 2, Medic, Steward, Administrator	**Maintenance Costs**: Cr30155/month **Purchase Costs**: MCr361.86

LATIEN HAULER CLASS SMALL FREIGHTER

TL10		TONS	COST (MCR)
Hull	2,000 tons, Standard	-	100
M-Drive	Thrust 2	40	80
J-Drive	Jump-1	55	82.5
Power Plant	Fusion (TL8), Power 1,100	110	55
Fuel Tanks	J-1 x2, 8 weeks of operation	422	-
Bridge	Standard Bridge	60	10
Computer	Computer/10	-	0.16
Sensors	Civilian Grade	1	3
Systems	Cargo Crane	7	7.5
	Additional Airlocks x3	6	0.6
	Medical Bay	4	2
	Workshop	6	0.9
	Training Facilities	4	0.8
Software	Library	-	-
	Manoeuvre/0	-	-
	Jump Control/1	-	0.2
Staterooms	Standard x32	128	16
Common Areas		32	3.2
Cargo		1125	-
		Total	361.86

POWER REQUIREMENTS

Basic Ship Systems	400
Manoeuvre Drive	400
Jump Drive	200
Sensors	1
Weapons	0



LEGEND

1. Sensors
2. Bridge
3. Training facility
4. Staterooms
5. Workshop
6. Jump drive
7. Common area
8. Power plant (TL8)
9. Additional airlock
10. Lift
11. Cargo hold (2 decks high)
12. Primary airlock
13. Manoeuvre drive
14. Cargo crane

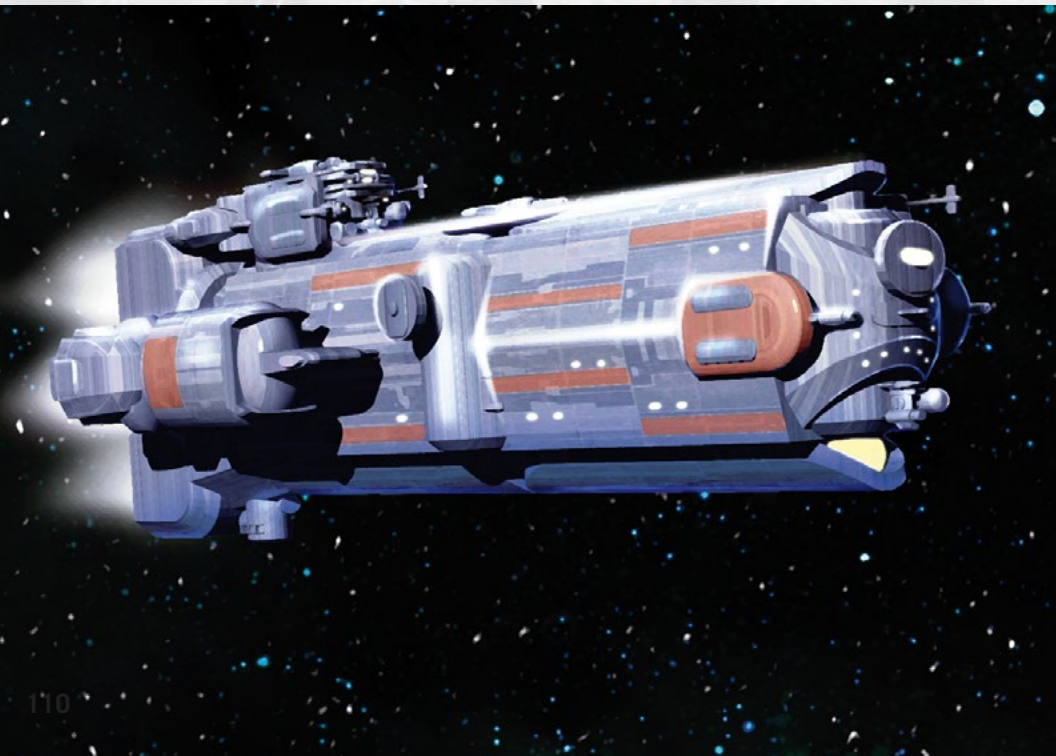
LATIEN HAULER Q-SHIP

The size and commonality of the Latien Hauler makes it ideal for conversion to a Q-ship. Visually identical to the standard version until it deploys its weaponry, the Q-ship retains all the equipment of the standard model, with additional TL12 items installed in the cargo hold.

The vessel's two batteries of fusion barbettes are located along its flanks whilst twelve pulse laser turrets are mounted in pairs around the dorsal and external surfaces of the manoeuvre drive compartments. All weapons are in concealed pop-up mounts, including the fusion barbettes.

The Latien-Q has potent sucker-punch firepower but can be spotted by a wary pirate. The additional power plant, if active, alters the ship's emissions; if it is not online this clue will be missed hostiles, but the ship lacks power to fire all weapons until the plant is started.

The other way to spot a Latien-Q is to watch for passengers. No additional accommodation is added during the conversion process, so gunners must use the passenger cabins. A Latien Hauler that does not take on passengers is by no means unusual, but could be a clue that there may be more to this ship than meets the eye. Cargo capacity is not greatly reduced by incorporating the weaponry; a Latien-Q can still carry over 1,000 tons of cargo, so its Q-ship role might not be immediately apparent. Indeed, a Latien-Q may still be a viable commercial starship.



LATIEN-Q CLASS SMALL FREIGHTER

TL12		TONS	COST (MCR)
Hull	2,000 tons, Standard	-	100
M-Drive	Thrust 2	40	80
J-Drive	Jump-1	55	82.5
Power Plant	Fusion (TL8), Power 1,100	110	55
	Fusion, (TL12), Power 360	24	24
Fuel Tanks	J-1 x2, 8 weeks of operation	427	-
Bridge	Standard Bridge	60	10
Computer	Computer/10	-	0.16
Sensors	Civilian Grade	1	3
Weapons	Pop-Up Double Turrets (pulse lasers) x8	16	28
	Pop-Up Fusion Barbettes x12	72	60
Systems	Cargo Crane	6.5	7.5
	Additional Airlocks x3	6	0.6
	Medical Bay	4	2
	Workshop	6	0.9
	Training Facility	4	0.8
Software	Library	-	-
	Manoeuvre/0	-	-
	Jump Control/1	-	0.2
Staterooms	Standard x32	128	16
Common Areas		32	3.2
Cargo		1008.5	-
		Total	473.86

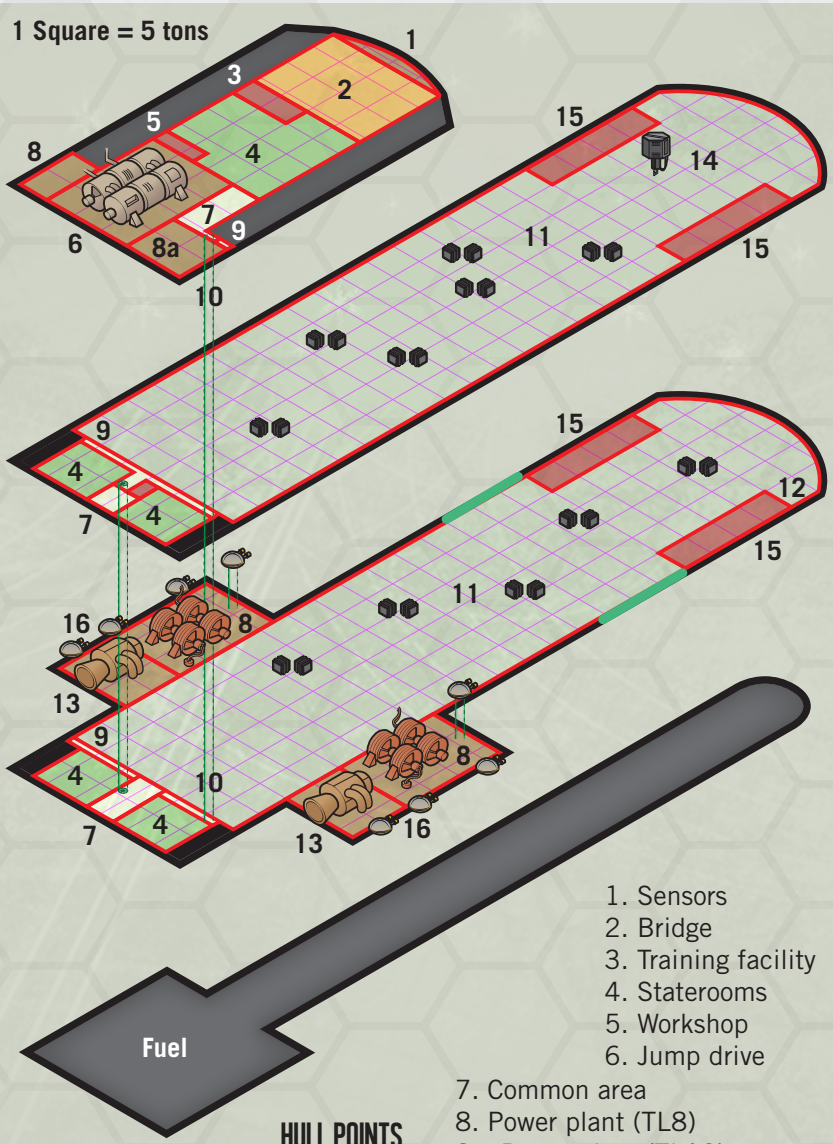
CREW

Captain, Pilot, Astrogator, Engineers x 6, Maintenance x 2, Medic, Gunners x 20

RUNNING COSTS

Maintenance Costs: Cr39488/month

Purchase Costs: MCr473.86



1. Sensors
2. Bridge
3. Training facility
4. Staterooms
5. Workshop
6. Jump drive
7. Common area
8. Power plant (TL8)
8a. Power plant (TL12)
9. Additional airlock
10. Lift
11. Cargo hold
12. Primary airlock
13. Manoeuvre drive
14. Cargo crane
15. Pop-up barbettes
16. Pop-up pulse laser turrets

HULL POINTS
800

POWER REQUIREMENTS

Basic Ship Systems	400
Manoeuvre Drive	400
Jump Drive	200
Sensors	1
Weapons	312

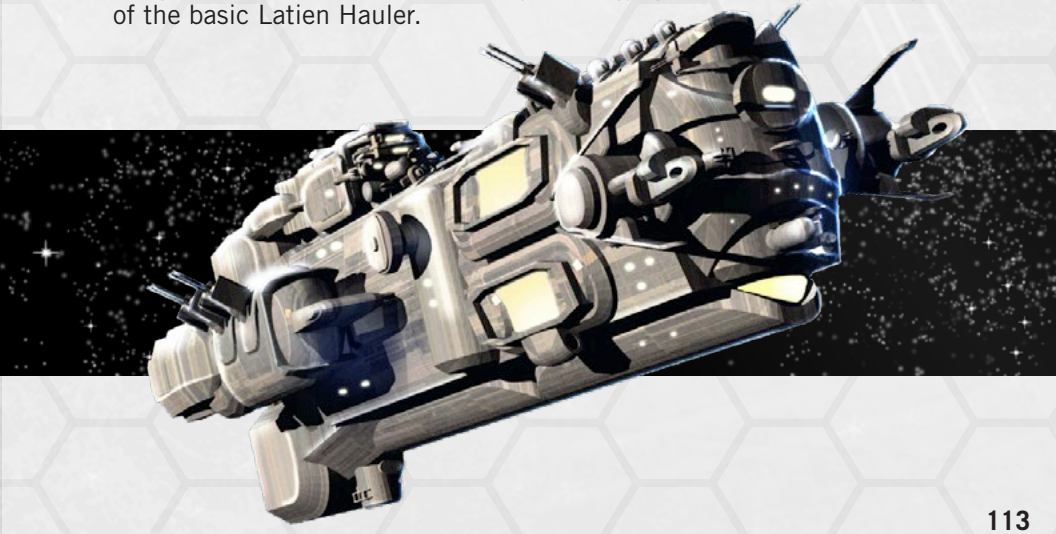
LATIEN HAULER GEM

The GEM-ship (Gunship-Equipped Merchant) comes and goes over time. It is essentially an expedient conversion, adding the capability to operate fighters or other small armed craft to a merchant vessel. Where the Q-ship conceals weaponry, the GEM-ship advertises it in the hope of deterring hostiles. GEM-ships are sometimes deployed as armed merchant cruisers in wartime, but are much more effective in peacetime commerce protection. Since the vessel retains some cargo capability, it can function as an armed transport though it will stand little chance if it encounters a proper warship even a fraction of its size.

The Latien Hauler GEM-ship trades most of its cargo capacity for 400 tons of small craft hangars, accessed from the flanks of the ship. A range of craft can be carried, depending upon the mission; it is common to operate a mix of light fighters and pinnaces if the GEM-ship is engaged in patrol or escort work. Alternatively, up to four 200-ton system defence boats can be carried to their station or deployed as heavy gunships. The hangar is configured so unused space can still be used for freight, though this can make handling of both cargo and small craft awkward.

Likewise, there is no missile magazine; the ship's cargo hold is used to carry missile reloads. There is no protection for the bays or the reloads, so a hit amidships, aft of the hangar area, risks blowing the whole ship in two. Aft of the missile bays and remaining cargo space is a small accommodation block for the small craft pilots. There is no additional power plant, unlike the Q-ship version, so the Latien-GEM cannot operate weapons whilst preparing to jump.

Although quite heavily armed, with a powerful missile armament and complement of armed small craft, the Latien-GEM is still a cargo ship, and a very clumsy one at that. The terrestrial equivalent would be putting a flight deck on an oil tanker – an apt analogy, given the shape and layout of the basic Latien Hauler.



LATIEN HAULER GEM

TL12		TONS	COST (MCR)
Hull	2,000 tons, Standard	-	100
M-Drive	Thrust 2	40	80
J-Drive	Jump-1	55	82.5
Power Plant	Fusion (TL8), Power 1100	110	55
Fuel Tanks	J-1 x2, 8 weeks of operation	422	-
Bridge	Standard Bridge	60	10
Computer	Computer/5	-	5
Sensors	Military Grade	2	4.1
Weapons	Medium Missile Bay x2	200	250
	Dual Turrets (pulse lasers) x8	8	20
Systems	Cargo Crane	3.5	3.5
	Additional Airlocks x3	6	0.6
	Medical Bay	4	2
	Workshop	6	0.9
	Training Facility	4	0.8
	Full hangar (400 tons)	800	160
Software	Library	-	-
	Manoeuvre/0	-	-
	Jump Control/1	-	0.2
Staterooms	Standard x48	192	24
Common Areas		32	3.2
Cargo		55.5	-
		Total	801.8

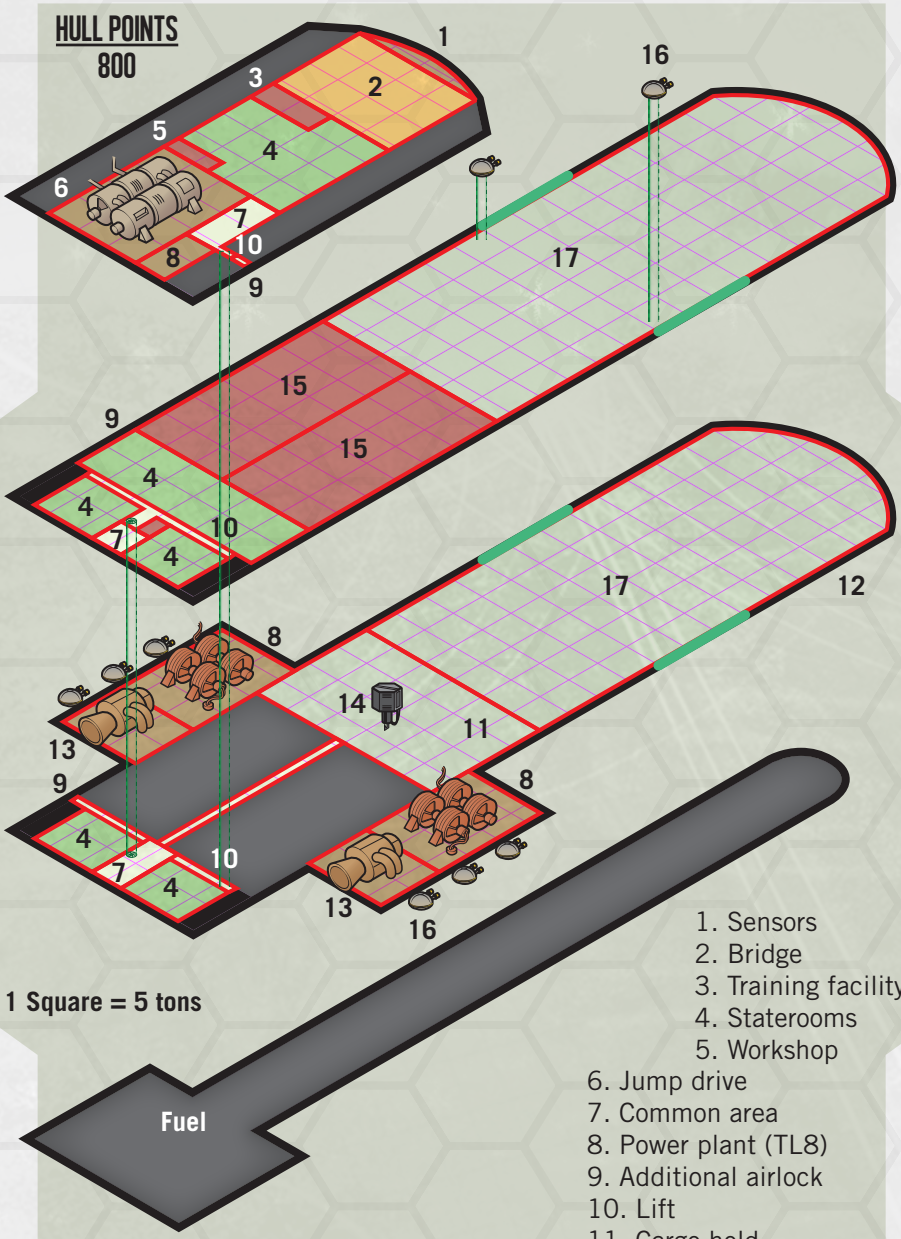
CREW

Captain, Pilot, Astrogator, Engineers x 6, Maintenance x 2, Medic, Gunners x 16

RUNNING COSTS

Maintenance Costs: Cr66816.66/month

Purchase Costs: MCr801.8



1. Sensors
2. Bridge
3. Training facility
4. Staterooms
5. Workshop
6. Jump drive
7. Common area
8. Power plant (TL8)
9. Additional airlock
10. Lift
11. Cargo hold
12. Primary airlock
13. Manoeuvre drive
14. Cargo crane
15. Missile bay
16 Pulse laser turrets
17. Hangar
18. Medical bay

POWER REQUIREMENTS

Basic Ship Systems	400
Manoeuvre Drive	400
Jump Drive	200
Sensors	2
Weapons	172

ASHUSHUM

The ashushum, which roughly translates as ‘leather snake’, is a creature native to Vland which sheds tough skin that can be worked into leather or a flatbread analogue. Its eggs have extremely well known nutritional properties and preparation methods. The ashusum was one of the earliest domesticated animals on Vland, its food and clothing products well integrated into society before written history and serving as a model for other efforts to make food from what resources were available. Ashushum leather is the traditional material for a number of traditional garments throughout former First Imperium space and is more available than Terran cow leather in many sectors.

Ashushum change colour as they age, from a brilliant purple through blue, green, yellow and eventually a dull red (centering on the near infrared), moulting once every four months on average and living for about 30 moults. An ashushum that can no longer moult grows within its skin until it crushes itself to death, producing a distinct tough meat akin to jerky, which is usually softened into a delicacy. Ashushum eyes are sensitive to ultraviolet and it is generally believed their colour change helps ashushum identify potential mates, looking for those not too bright in ultraviolet but not completely dark in that wavelength either. Older ashushum shed tougher skin, more usable as leather and less edible. Some breeds grow tough beads on their tails that can be ground into spice or fire-hardened to stud the leather. Ashushum are not poisonous but archaeology suggests they once had venomous kin, apparently exterminated as Vilani spread across their world.

NAME	Ashushum
HITS	3
SPEED	2 m
SKILLS	Melee (natural) 1, Recon 0, Stealth 2, Survival 2
ATTACKS	Bite (D3)
TRAITS	Heightened Senses, Small (-3), UV Vision
BEHAVIOUR	Omnivore, Hunter

A common example of Vilani conservatism is that, while many other domestic animals have been engineered and bred for higher utility, most ahushum today have the exact same genome as those on pre-spaceflight Vland, having never benefited from augmentation beyond selective breeding. Some ashushum farms on Vland have been in continuous operation, providing seed stock for numerous colonies, for over ten thousand years and are quite the sight to behold, with automated food distribution and moult gathering machines poking out of several square kilometres of ashushum pens, which look from a distance like writhing, slithering ground. Many Solomani report a sensation of slight unease when first beholding such an operation.

AUWOIL

The auwoil are small rodents that Aslan like to keep around to hunt. Fast but dumb, they are easily tricked into enclosed spaces, around which they run until they are caught or find a way out. This behaviour comes from being bred to get euphoria from running. In zero-g environments they will often 'treadmill' around a room, running around in circles so long as their clawed toes can find footholds.

Auwoils use their large hind legs to almost fly over the ground, being capable of horizontal leaps of six metres in rapid succession. This quick gait makes up for their small size, allowing them to nearly outrun an average adult Aslan.

Some Aslan ships carry tiny treadmills as a source of temporary emergency power, the idea being to put auwails on them and get at least several minutes of life support and communications, potentially enough for a rescue if the ship is disabled. The amount of power generated is minuscule enough that this would be a desperate measure but prideful male Aslans cannot be bothered with such details, assuming females can make the numbers work.

NAME	Auwoil
HITS	2
SPEED	6 m
SKILLS	Athletics (dexterity) 1, Survival 1
ATTACKS	Bite (1)
TRAITS	Fast Metabolism (+2), Small (-4)
BEHAVIOUR	Herbivore, Intermittent

EAUEAL

"Eaueal" translates from Trokh as "river gun", and that is a fair summary of the species. Some landowners within the Aslan Hierate view it as traditional to create small streams to mark territory boundaries, if no other landmarks are handy. Many of these streams host this imported eel analogue. In theory, they eat any small animals attempting to cross from one territory to another without permission (being incapable of language, they never ask). Many get by in practice, but said small animals are the mainstay of adult eaueals' diets even at some distance from the streams.

NAME	Eaueal
HITS	10
SPEED	4 m (8m swimming)
SKILLS	Athletics (dexterity) 2, Melee 1, Stealth 3, Survival 1
ATTACKS	Bite (1D), High Pressure Spit (1D, Range 30, Magazine 12, Silent)
TRAITS	Camouflaged, Small (-1)
BEHAVIOUR	Carnivore, Pouncer

Freshly hatched young eaueals and adults who can not find bigger prey dine on small insects, though mated eaueals with recently hatched offspring will see the mother guarding the offspring while the father brings back fresh kills.

The most notable feature of eaueals is their 12 high pressure water chambers, which can be discharged rapidly to produce high velocity bolts of water, capable of hitting with the force of a low-grade air rifle. These chambers are present from birth, but capable of much less range and power in juveniles. The region of the throat above these chambers is reinforced, shaping the bolts to allow for impressively long range attacks for a natural weapon (though by no means record setting). They can be recharged in water, at a rate of 1 per round. While a substantial threat to small, weak, unarmored animals, they are of little danger to sufficiently armored Aslan hunters or to those who fire from further than the eaueals can reach.

Attacking from a distance is best done with thermal or other enhanced vision, as eaueals can change their skin coloration to sneak up on their favored prey. They are also adept at using water to hide their presence, particularly fond of digging up dirt to hide their presence when they think some larger predator (such as an Aslan) is nearby. Ironically, trained hunters know the sudden appearance of these muddy clouds in the water is a sign an eaueal may be present, if not exactly where. Analogies have been made to electronic warfare giving away the presence of previously undetected vehicles, where the crew feared they were already detected.
Eaueals are air-breathing amphibians. Varieties have been bred that can handle thin, dense, and most varieties of tainted atmospheres. Inevitably, eaueals roam whatever water sources their streams are connected to, colonizing them over time. While they are freshwater creatures, ill adapted to saltwater oceans, they have short fin-like legs that allow a decent overland speed. They must keep their skin moist, usually only able to spend three to six hours out of water depending on humidity, though one eaueal was found to have spent dozens of hours aloft in a hurricane and suffering no ill effects, apparently having hunted and fed while aloft. On most worlds where they are present, Aslan are their main predators: while eaueals do not trigger the same instincts as auwoils, their larger size and increased danger can still make for satisfying hunts, especially for those who use only dewclaws when seeking eaueals.

Eaueals use Athletics (dexterity), rather than Gun Combat (archaic), to fire their water bolts.

EYEWING

Eyewings are genetically engineered sentries that change their feather colour to blend with the sky when viewed from below or with the ground (or clouds) when viewed from above. They have sharp enough senses to avoid incoming grav craft or spacecraft, are acclimated to a particular installation (most often a starport) and squawk in radio frequencies when they see something unfamiliar, which alerts security to investigate an area. If intruders shoot the bird they give away their hostile intent and, more importantly, position: they can expect an immediate response if any armed ship allied to the installation is in line of sight, assuming they are not close to vital infrastructure.

Eyewings will also squawk, though in a louder and more frequent pitch, if they witness some major calamity, such as an earthquake or spaceship crashing into a starport. On some colony worlds this is the only early warning system, buying colonists a few precious seconds to brace or summon help from far flung emergency services.

By most accounts, the eyewing was engineered to justify the development of DNA that could create an organic radio transceiver: a solution looking for a problem. Natural variations in length and strength meant organisms would broadcast in inconsistent wavelengths (much inferior to cybernetic implants), with all the lack of formality and training of any beast, meaning use was confined to what were frontier worlds at the time. As these worlds grew, some eventually outlawed them (using their radio speech to hunt and exterminate), while others cordoned off the portion of radio spectrum that eyewings use. Some of these latter worlds have bred and trained songbird variants, producing symphonies only audible via radio.

NAME	Eyewing
HITS	1
SPEED	3 m
SKILLS	Athletics (dexterity) 1, Melee (natural) 1, Recon 3, Stealth 2, Survival 1
ATTACKS	Talons (1)
TRAITS	Alarm, Camouflaged, Flyer (Medium), Heightened Senses, Small (-4)
BEHAVIOUR	Omnivore, Hunter

GIANT SILKMAKER

These cat-sized spiders are the source of certain brands of cloth armour, as well as less durable textiles and ornaments. They have diverged heavily from their ancestors, no longer possessing venom and exclusively herbivorous. Bred for zero-g environments, they fare poorly in even 0.1 G and will not survive long on any world of Size 2+ or in a spaceship that does not have zero-g compartments available. Most spacecraft are too small to have more than one gravity aboard, meaning these creatures must be shipped in low berths.

Porcupine-like spines on their backs catch and weave the silk they produce. Pheromone trails can alter the pattern of quills and lead the silkmakers along paths, doing most of the work to create garments, especially when multiple silkmakers are coordinated. While at work, the silk trailing behind a silkmaker often looks like a miniature scarf until the end result begins to take shape. Their silk is naturally white but dyes in their food will pass through their digestive systems and colour the silk. Certain families of silkmakers weave in well-known patterns, which become prized then passé then prized again in difficult to predict cycles. Larger garment makers keep multiple families, stockpiling the output of the less popular for decades, then making a fortune when they are once more in style.

If left unguided (such as in an abandoned but functional space station), they tend to form nests and webs as they revert to simple survival and breeding. If there are no predators aboard, they will eat themselves to extinction, resulting in a tangled mess for any subsequent explorers to slice through. It is more often the case that they will serve as food for a small predator population, sustaining carnivores and omnivores capable of hunting and slaying unarmoured Travellers. Some survival guides thus call out the existence of silkmakers on abandoned space stations as a warning sign.

NAME	Giant Silkmaker
HITS	3
SPEED	3 m
SKILLS	Recon 1, Stealth 2, Survival 0
ATTACKS	None
TRAITS	Small (-3)
BEHAVIOUR	Herbivore, Intermittent

HORSE

Most sophont races have a native equivalent but the Rule of Man thoroughly established the horse's iconic status throughout much of Charted Space. When the Third Imperium finally rose thousands of years later, horses were still the most commonly used riding animal. Millennia of development of the basic saddle have not changed the basic concept. Countless varieties have been bred, adapted to local circumstances on thousands of worlds; commonly available horses can breathe the air of any world with atmosphere codes two through nine.

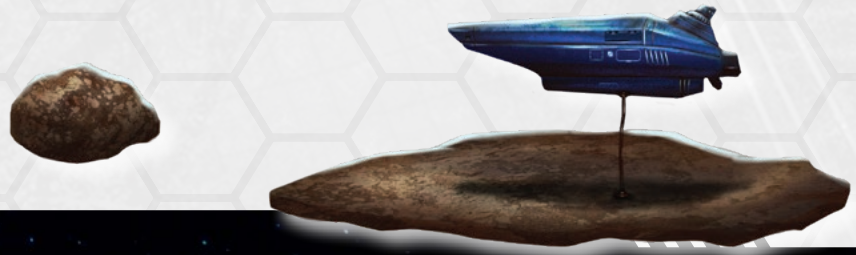
Some worlds that forbid high technology, require travellers to ride horses (or walk) if they go beyond the starport. Every class D or higher downport on such a world has horses for lease (Cr100 to Cr1000 per day, higher prices where rentals are less common or supply is scarce, sometimes requiring D3 weeks' lease as a deposit and refunding any unused deposit upon return). The image of a veteran pilot, master of vehicles from g/bikes to the largest capital ships but clueless about animals and needing to ride (often sidesaddle) with someone who can handle a horse, has been iconic in popular media since the solomani first encountered the vilani. When vehicular stats prove useful, a horse can be treated as a TL 0 open light walker vehicle with a maximum speed of Slow and cruising speed of Very Slow, maximum speed Range of 90 and cruising speed Range of 120 (a daily limit of endurance that can be reached in a few hours, assuming a breed tailored for long distance travel), the ATV trait (DM+2 to negotiate rough terrain, cancelling the usual DM-2) and uses Animals (handling) to instead of Drive. A horse is not actually a vehicle and may not have vehicular components mounted beyond riders and cargo.

NAME	Horse
HITS	32
SPEED	11 m
SKILLS	Athletics (endurance) 2, Melee 0, Recon 0, Survival 1
ATTACKS	Kick (2D), Bite (1D)
TRAITS	Large (+1)
BEHAVIOUR	Herbivore, Grazer

Where horses are required and vehicles forbidden, there will usually be a vendor in a nearby system (or elsewhere in the same system) providing equine robots with very good biomimetics (TL 10+ and Cr120000, with stats equal to a horse but triple the Range as a robot does not tire) and a tiny fuel processor (to refuel from water, taking 6 hours): if the world truly forbids high technology, that includes forbidding the scanners necessary to tell the difference. Given the relatively high cost, this is usually about ornery pride rather than customization, familiarity and the other typically stated advantages. Citizens who suspect this cheating will sometimes claim it is customary to give a stranger's horse a friendly pat or look in the horse's mouth, as an excuse to check for motors instead of muscles under the skin, which results in a contest between the examiner's Animals (veterinary) (INT) and the robot's maker's Deception (INT); an advanced skin package (changing the cost to Cr150000) gives the maker DM+ equal to the TL the robot was made at. Against technological sensors, this is Electronics (sensors) (INT) versus Deception (INT) and the advanced skin, if present and of a higher TL than the sensor, gives DM+ equal to the robot's TL minus the sensor's.

LIVING REFINERY

A silicon-based lifeform similar to a fungal mat, engineered by one of the subject races of the Hive Federation, which floats – usually under direction – from asteroid to asteroid, eating just the stony parts, ejecting ore and ice, living off sunlight for energy and stone for nutrition. Entire cultures of sophonts are based on living refineries, living on docked spaceships (occasionally briefly leaving to tug more asteroids into their host's path) until enough ice and/or ore has been accumulated, then heading to a nearby world to trade the goods for manufactured wares (tens or hundreds of thousands of tons of ore, for a new spaceship to house the clan's expanded population, is common).



NAME	Living Refinery
HITS	20 (spacecraft scale)
SPEED	0.01 G, 40 hours
SKILLS	None
ATTACKS	None
TRAITS	Dispersed, Gigantic 1, Reaction Drive, Vacuum
BEHAVIOUR	Omnivore, Eater

Living refineries require a certain minimum light intensity, meaning they can not survive in the outer reaches of a solar system without artificial light. It is easy to construct and maintain a fusion-powered light source to sustain a living refinery but in most cases their riding clans prefer to stay in the inner system.

Living refineries usually use their ingested rocks to grow, but maintain a reserve mass to eject for thrust, though they can barely get from planetary orbit to a satellite or (via longer, low energy transfer orbits) from asteroid to asteroid in a typical belt. When a living refinery grows large enough, it can be cut to make two smaller creatures, with any sophont clan aboard likewise dividing. Alternately, a living refinery can be put in shade from the sun for a while, killing it but making the equivalent of a spaceship's planetoid hull in whatever shape the living refinery was folded into as it died.

Planetoid hulled ships are strongly cautioned to stay away from these creatures, as they will consume said hulls just like any asteroid. Damage varies by the amount of surface area in contact with the living refinery but usually 1% of the ship's maximum Hull per combat round, ignoring Armour. Ships with an outer skin made of metal (which is most ships) are safe.

PSIBEE

A telepathic/group mind bee swarm, originally developed 693–698 by a joint Third Imperium/Zhodani Consulate group, exterminated within the Third Imperium during the Psionics Suppressions (800–820). The queen grows large enough to function as a mobile central hive, while retaining her ability to fly. Psibees are used as pollinators on worlds with psions, where the queens can be psionically controlled. One variant known as a 'magbee' is magnetoreceptive, so as to be also controllable via magnets but retain their telepathy.

NAME	Psibee Swarm
HITS	3
SPEED	2 m
SKILLS	Recon 0, Telepathy 1
ATTACKS	Sting (D3)
TRAITS	Composite (1+10000), Flyer, Psionic (6), Small (-3)
BEHAVIOUR	Herbivore, Gatherer

Queens are usually sessile, serving as a base around which honeycombs are constructed. The queen (with the only developed stomach in the swarm) digests all pollen and nectar brought by the workers and secrets it as wax (which the workers fashion into honeycombs around the queen), larvae (which all become workers, unlike Terran bees) and honey (the only thing the larvae and workers actually eat). They can be directed to abandon honeycombs and move to another location to facilitate harvesting but care must be taken to only move the hive when it is strong. Creating new queens is done only on command: the queen will secrete a measure of royal jelly, triggering a larva to grow rapidly, up to half as large as the existing queen before growing wings and leaving, taking a portion of the swarm.

Psibees are also intended for guerrilla defence of an invaded planet. Unsealed armour offers no protection from their stings. The queen can hide nearby in full cover, attacking with a seemingly endless supply of workers. Whoever is controlling the queen must be able to see the target but this can be via camera. If the queen is killed, the workers disperse then starve in a few hours unless they find another psibee queen to take them in, such as one whose workers have been depleted fighting the invaders.

RAMUMI

Ramumis, also known as 'Vilani rats', are small furred egg layers found throughout coreward Imperial space. Their eggs are the core ingredient in many Vlani dishes, suggesting they are from Vland but their ancestry is disputed. There are no records of ramumis on Vland prior to their discovery of the jump drive, although this was about 10,000 years ago so absence of evidence is not evidence of absence.

They appear to have been a favourite of the Vlani shugilii, in the caste's role as food preparers and eventually preservers of tradition. At some point training them to sing was adopted as a tradition; ramumi-sung hymns were composed to mark the Ziru Sirka's founding, a few of which were sung for

NAME	Ramumi
HITS	1
SPEED	3 m
SKILLS	Recon 1, Stealth 2, Survival 2
ATTACKS	Bite (1)
TRAITS	Heightened Senses, Fast Metabolism (+1), Small (-4)
BEHAVIOUR	Omnivore, Gatherer

Cleon I upon the founding of the Third Imperium. Ramumis bred for song are slimmer, longer lived, more colourful, slightly more intelligent and less frequently laying than ramumis bred for egg production. Their high pitched tonal squeaking is known on worlds from Cruicis Margin to Fulani, from Gashikan (where certain groups have them sing as part of ceremonially executing Vargr) to Banners (where they are traditionally hidden from Aslan guests). Meat from singing ramumi (readily discernible by their thinner and leaner texture) is outlawed on many Vilani worlds, which in almost every case has resulted in a black market. There have been underworld chefs who prided themselves on making feasts for their organisations featuring this ingredient. Some criminal groups use ramumi meat heists as training runs for new members, recording the heists to provide blackmail to secure said members' loyalty.

Ramumis are also, according to legend, favoured assassination tools in certain circles: train one to seek out a target's scent, force feed it explosives, let it scamper where few think it a serious threat, and detonate via radio when it perches on the target's shoulder. Damage is equal to a grenade (type depending on the choice of explosive, usually frag), ignoring the target's armour unless the target is wearing something covering the full body (specifically, the neck).

SHIP'S CAT

Terran cats have been aboard ships since before the solomani discovered jump drive but ship's cats are specifically bred for life aboard ship. They can sense pressure differentials and electric fields, which can help find problems in ship systems and in the event of depressurization will instinctively seek out pressurized areas or enter rescue balls (which they sometimes inhabit for no apparent purpose beyond fun). Certain breeds can survive a short time in vacuum (so long as they are in contact with a surface to draw heat from) and in distress are able to operate simple airlock controls to get back inside (they never do this when in normal atmosphere). Many ship's cats will refuse to exit the ship on all but standard atmosphere worlds (or in standard pressure regions of thin or dense atmosphere worlds) but have natural filters for tainted atmospheres. They have been thoroughly bred and engineered to not chew on wires or otherwise ruin sensitive systems and become temporarily infertile while in jumpspace, remaining so for several days after breakout. Most breeds can distinguish ship's crew from passengers and will stay away from the latter if they seem to be the type who would not appreciate cats.

Ship's cats are kept for companionship and to hunt vermin that get on board. This latter trait endears them to hivers, who use them as convenient on-board predators to hunt the grubs that hivers shed. Some Vargr keep ship's cats for their company, especially lowborn Vargr without many friends. Aslan instinctively see ship's cats as competitors for the same prey and so rarely keep them. K'kree see ship's cats as a symbol of all that is wrong with meat-eating aliens. Ship's cats on Droyne ships are

exceptionally well cared for and some crews use them as divinatory aids to suggest future ventures, essentially using the ship's cat as captain.

Some breeds, developed in the Third Imperium before the Psionics Suppressions, are psionic, favouring teleportation the way sophonts favour telepathy. These add the Psionic (9) trait and Teleportation 2 skill, and rarely teleport with equipment: collars are left behind but implanted transponders (standard for ship's cats, to make sure they are aboard when it is time to leave port) will teleport. They are known for teleporting through walls (never into vacuum, and are able to escape sudden depressurisation of a compartment this way), disappearing around corners or behind furniture and generally going anywhere in a ship they want to. There is many a tale of a depressed spacer, locked inside their stateroom and refusing all company, whose ship's cat would not take no for an answer and cuddled the spacer until suicidal thoughts went away. If using the Sanity rules from the Traveller Companion, the daily attentions of a friendly ship's cat count towards establishing a 'safe and supportive' environment for recovering Sanity even if there is no one else to be supportive.

NAME	Ship's Cat
HITS	5
SPEED	6 m
SKILLS	Athletics (dexterity) 1, Melee (natural) 1, Recon 2, Stealth 3, Survival 1
ATTACKS	Claws (1)
TRAITS	Clever, Heightened Senses, Small (-3)
BEHAVIOUR	Carnivore, Pouncer

ZIAVBRO

Terra does not have a monopoly on the basic concept of a furred four-legged domesticated companion animal. The ziavbro is an example native to Zhodane. Most breeds are waist-high to a Zhodani as adults, easily capable of carrying a human child. They are also psionic, having been bred to very high levels of talent. While they have no language as sophonts know it, they can empathise, as well as channel psi power to boost their bodies when danger is near. Compared to Terran dogs, they have a single extra mid-forehead eye tuned to the infrared, which helps them spot hidden living creatures (or in modern times, hidden power sources, such as powered armour in cover).

In ancient times they were used as hunters, guardians and herders, much like animals on countless worlds. They still fill that role on lower tech worlds but are more often seen as intimacy surrogates, bonding with someone deprived of family. They are also frequently used in elder care, tending to charges unable to speak and baby care, tending to charges unable to speak on their own. Ziavbros who served on exploration, military or police duties, where their handlers died in action, often return to their handler's family where they serve as protector and caretaker in place of their missing person.

NAME	Ziavbro
HITS	10
SPEED	9 m
SKILLS	Athletics (strength) 1, Awareness 0, Melee (natural) 1, Persuade 0, Recon 2, Survival 1, Telepathy 0
ATTACKS	Bite (1D)
TRAITS	Alarm, IR Vision, Psionic (12), Small (-1)
BEHAVIOUR	Omnivore, Hunter