

The Passage of the *Altairean Rose*

Poster/Announcement Note

The parplanetary airship *Altairean Rose*, operating out of Port Antarctica, has been posted lost, presumed destroyed with all hands. But some will not accept that verdict. She was not the stoutest of vessels, to be sure, but there is no evidence of boiler explosion or Faraday flux collapse, and no wreckage has been reported anywhere among the known worlds.

You have been commissioned to determine the truth. But if one parplanetary vessel can simply vanish, is it wise for others to seek to follow?

Initial Setup

Explain basic setting idea:

This is a steampunk interstellar travel setting – borrowed, adapted, and much expanded from an old 3rd edition *GURPS* supplement, *GURPS Steam-Tech*, and using material from the new 4th edition *GURPS Steampunk* line. *[It's not fully developed; it might get some more detail in due course.]*

It's set in an alternate history where, in the mid-19th century, a series of scientific discoveries enabled the invention of a form of interstellar travel. Using a “parplanetary” device, a vessel may be sent across space to other worlds. However, for insurmountable technical reasons, these devices can only function within 80-100 miles of a planet's magnetic poles. Somewhat fortuitously, they require very similar physical conditions at each end, so they can only send travellers to other planets with somewhat Earth-like gravity, temperature, and atmospheric pressure and (broadly speaking) atmospheric chemistry. They also have range limits, although those are complex.

However, geophysical conditions vary quite a bit between worlds, and the parplanetary system introduces a little uncertainty into precise arrival positions. Hence, it is safest to operate such devices at altitude – usually aboard specially designed airships. Fortuitously, helium gas can be obtained quite cheaply on various extrasolar worlds.

Exploration of these worlds encountered a number of surprising discoveries, including a few sapient alien races – though none of those met in person have proved to be very technologically advanced. However, there does appear to have been one race active a few thousand years ago who were fully capable of parplanetary travel – and who **visited Earth**, encountered humans, and even took some of them off Earth. They were apparently known to the Ancient Egyptians, and probably worshipped there as gods; archaeologists have called them “Horusians.” What happened to them is a great mystery, but because of them, low-tech but thriving human communities have been discovered on a few worlds beyond Earth.

Today

It is now the 20th century (exact date to be unspecified in this game), and the parplanetary coordinates of a number of worlds have been determined. (Identifying the coordinates for a new world is a complex scientific task with a lot of luck involved in the process.) Most of these worlds have human outposts, and many have colonies of various sizes. Yes, this is “Victorian empires in space”; the options offered by extrasolar exploration and colonisation have taken some of the pressure off the rivalries that led to the First World War, meaning that a somewhat Victorian social system has survived, but with variations and a lot of weirdness round the edges.

Trade and travel between the worlds is now quite frequent, although the need to fly an airship to within 100 miles or less of one of the magnetic poles is obviously a constraint – trade tends to be in low-bulk, high-value goods, and colonists have to be quite strongly motivated, though it turns out that quite a few people are. There are “port towns” – functionally international communities – in northern Canada (under Canadian-British authority) and on the coast of Antarctica (governed under a treaty by several major powers).

The PCs are the crew of a small parplanetary vessel, the *Star Gull*, which is essentially a tramp cargo/passenger craft – but because it’s difficult for such a small vessel to turn a profit on simple shipping work, they’re prepared to take on all sorts of broadly legal missions, including salvage and investigation. They are based in Antarctica, which is rather more rumbustious and flexible than the British-dominated Arctic port.

The PCs

Give the players a choice, if they haven’t chosen already:

Captain Joseph Mead, Experienced airshipman and master.

Myrina Joanschild, Amazon warrior and second-in-command.

Olaf Larsson, Burly Swedish engineer.

Dr. Paul Shadwell, Airship’s doctor and scholar.

Mr. Norrielmæ, Alien, kleptomaniac, and usefully agile ship’s rigger.

Distribute character sheets and explain basics of system as required. Yes, five people is enough to run an airship in this setting (it’s rather a small number by historical standards); the technology is quite mature. Explain a bit about sparrials and their ... interesting view of property rights. Anyhow, these people are essentially a business partnership, all with shares in the *Star Gull*, though the captain has a double share and Mr. Norrielmæ has a half share.

This is very much a parplanetary craft, with a sealed passenger compartment to permit visits to worlds with unbreathable atmospheres, some fancy oxidising chemicals to keep the advanced steam engine running for a few hours even without external air and backup batteries for more of margin, and an assortment of filter and compressor masks for everyone. The exotic electrical technology of the setting also explains the raygun pistols which are standard sidearms for adventurers such as the PCs.

Parplanetary Operations

May be worth giving players an executive summary of this at the start...

For game purposes, each known transfer has a difficulty rating from 1 to 3, largely but not solely determined by distance in space. Longer “jumps” are possible for *some* craft with superior parplanetary technology, but *hard*, using the sum of the difficulties for a multi-step jump for their difficulty; large commercial operations tend to avoid them, as there’s usually stuff that can be done at the intervening ports anyway, and it’s cheaper to build big liners with less advanced technology.

The Jump Crystal: At the heart of the parplanetary system is a large (c. 20 lbs.) artificial crystal with a high internal electrical capacitance, especially when under mechanical pressure. These are produced in bulk, and cost \$100 each, but they then have to be attuned for one specific jump at one specific time. This involves setting up precise electrostatic charges across appropriate facets of the crystal, subjecting it to high-frequency alternating currents, and aligning it correctly for the drive’s standard press and charging mechanisms. It’s then stored in a padded case, with clamps to maintain any necessary pressures, until it can be installed in the drive.

Crystals can be attuned while on a ship. Most jumps of difficulty 3 or less have known settings, but if you're trying to determine them from scratch, roll Navigation (Hyperspace), at a penalty equal to jump difficulty minus 1, with a ship's onboard mechanical calculator as basic equipment for the task, taking base 10 minutes x the jump difficulty level. To attune the crystal, roll Electronics Operation (Paraplanetary), at -2 for jump difficulties greater than 3, taking base 20 minutes. Both rolls (if required) are made secretly by the GM; if either is failed, then re-roll (unless the failure was a critical) to spot the error and start over. (If settings need to be determined, multiple people can try and compare the results.) If a normal failure gets through undetected, the ship will misjump to a completely wrong world within the same jump distance or less – or if there is no such world, there's a 4 in 6 chance you'll go to the right place, else you get *instability*. If there was a critical failure involved, there's a 50-50 chance of such a misjump or instability.

Hence, it's safer to acquire an attuned crystal from the certified Navigation Works that can be found in any substantial paraplanetary port. Those places have experts, high-precision systems, and the incredibly precise equipment needed to check that a crystal is correctly attuned. This reduces the risk of failure to negligible (on a par with the chance of an airliner crashing in our world, though never with a critical success on the preparation roll), but at a financial cost; \$150 for difficulty 1, \$250 for difficulty 2, \$500 for difficulty 3, double the price for each level beyond that. In any case, an attuned crystal is good for 1d+1 days (1d+6 if the preparation roll was a critical success), after which, using it for a jump automatically triggers instability.

In any case, whoever set up the crystal, installing it in the drive needs a roll against Electronics Operation (Paraplanetary) at +1 or against Airshipman at -2, taking base 5 minutes. On a normal failure, start over; on a critical failure, make a DX roll, and on a success on that, start over, on a failure, there's a 50-50 chance of losing the settings entirely or what seems like success but actually instability ensuing when the drive is activated. Respectable commercial vessels have very skilled specialists who take plenty of Extra Time.

Making the actual jump means charging the crystal electrically while subjecting it to precisely calibrated pressures. This requires 1d minutes per difficulty level of the trip. Then, when someone throws a lever, the pressure on the crystal is released, the ship is bathed in St. Elmo's fire for a few seconds, light swirls around it, and it arrives elsewhere. If the crystal does demonstrate *instability* when the jump lever is thrown, roll against Electronics Operation (Paraplanetary) or Shiphandling (Airship) to spot the problem in time to attempt a *stabilisation roll* against Electronics Operation (Paraplanetary); this is usually at -5 (-10 if there was a critical failure on the preparation roll), but if the problem is that the crystal is out of date, it's at -1 per 6 hours past the best-by date or fraction thereof.

If a stabilisation roll is required and succeeds, the craft doesn't jump, but must make a HT roll; if that succeeds, it can limp home at half speed – otherwise, it suffers a series of ruptures and descends at speed (roll vs. Shiphandling to avoid some kind of catastrophic crash). Individuals on board may suffer assorted injuries at the GM's whim. If stabilisation fails, the airship suffers a *real* disaster; *Faradayan Flux Collapse*. This is visible for miles around, as the ship is blow apart by an electrical explosion. Details at the GM's option, but survivors are rare.

A successful jump also requires a roll against Navigation (Hyperspace), at a penalty equal to the journey difficulty, to set some specific parameters. On a critical success, the ship arrives within about a mile (3d x 100 yards, random direction) of a chosen point on the target world. On a normal success, it arrives 2d x 5 miles from the chosen point (random direction again). On a normal failure, it arrives (2d-1) x 10 miles from the target point (random direction again). On a critical failure (or if

the attempt wasn't made properly at all), the miss distance is 3d x 10 miles and the vessel must make a HT roll or suffer 3d damage from the bumpy arrival (which is fairly trivial, but means a repair bill).

One peculiarity of the technology is that a jump to an opposite magnetic pole to that which one is departing from, even on the same planet, is very difficult, and is often disregarded as effectively impossible. As airshipmen know at least in theory, though, it's actually the equivalent of a difficulty 5 jump (difficulty 4 on a tidally locked world), although there are various interesting possible side-effects, involving kinetic energy, that tend to deter people (though those don't apply on tidally locked worlds).

The Scenario

Our heroes are commissioned to investigate an apparent airship disaster by the grieving uncle of one of its victims. Unfortunately, there are a lot of secrets here...

The Setup

The crew, between jobs in Port Antarctica one spring day when the local weather is quite tolerable, are informed by a local agent that he's been commissioned to tell them that there's a well-paid job going from someone who has asked for them specifically. This is good but fairly routine for them, so they can be assumed to be interested, at which point the agent gives them a name, an address, and a time: Colonel Sebastien Grimstone, at Grimstone House, a little way out of town, at 2pm that afternoon. That gives them just enough time to decide who's going, have a wash and brush up, and get over there.

Grimstone House is clearly the manor of a wealthy gentleman, built of imported stone and with a full domestic staff. The visitors are conducted through to what proves to be an open garden space; the elderly and well-wrapped Col. Grimstone tells them to keep their outdoor garb on. "The doctors say that I've been living down here too dashed long; m'body can't handle warmth any more." He reacts well to the crew (+3 if any roll seems necessary); he's susceptible to roguish charm. If anyone asks, Psychology at -2 will pick up that he may see himself as a bit more roguish and less respectable than his social position implies.

He's sitting among a collection of exotic – in fact, literally unearthly – garden plants. PCs will certainly realise that they must come from worlds such as Apex, Mesh, Ilike, or Calgary, where life exists has adapted to extreme cold by terrestrial standards. If anyone asks, he shrugs them off as a hobby.

But he's not asked anyone here to discuss horticulture. He assumes that the PCs have heard about the *Altairean Rose* affair... (They have; it's been in all the news-sheets and a staple of gossip among airshipmen, after all.) In brief, the *Altairean Rose*, a medium-sized passenger vessel, disappeared about two weeks ago on departure from Shalamar, and didn't arrive on Marrakesh as expected. (It was scheduled to stop off there and then proceed to Earth.) However, searches on Ilike and Marrakesh, and even Ys, have failed to find any wreckage, which doesn't suggest a normal misjump, while no-one has reported the signs of a Faradayan Flux Collapse. The Shalamar Navigation Works insist that there can have been nothing wrong with the jump crystal; astronomers and engineers likewise insist that it's very unlikely that there's an unknown world within a low-power jump of Shalamar. High Sirius Paraplanetary, the company who operated the *Rose*, claim to have no idea what happened, but say that they are anxious to find out.

What the PCs are unlikely to know, unless they've made a very good Current Affairs roll or done some rapid digging, is that one of the passengers on the missing vessel was in fact Col. Grimstone's nephew – his sister's son, Richard Cheriton. Richard was traveling to review the operations of a company in which the family have an interest; the Southerly Spice Trading Company. Grimstone was one of the founding partners in this company, though he's now mostly retired, bringing his experience of colonial organisation in India to the early years. Cheriton came into the business recently as a family representative with an honest interest in working his way into a useful role, and Grimstone suggested that he took a tour of the company's outposts to build up a full understanding of its workings. As Cheriton was returning from that tour, Grimstone feels somewhat responsible for what happened to him, and made some inquiries about the fate of the *Altairean Rose*.

Specifically, he commissioned a local private agent on Shalamar, **Benoit Lasalles**, to make enquiries about the incident, independent of the slow-moving official investigation – to ensure that nothing was missed, and to provide regular reports on whatever anyone might find. (Grimstone trusts Lasalles, having employed him previously on commercial matters.) Last night, Grimstone received a report from Lasalles, stating that there may be some kind of oddity in the records of the local Navigation Works, regarding the crystals provided to the *Altairean Rose* for the jump to Marrakesh. Grimstone is worldly enough to know that a failure at the Navigation Works might well be deeply embarrassing for the management, and hence that any official investigation might be steered away from that. And, in the absence of wreckage, he's still holding onto the hope that his nephew might just possibly still be alive.

So the PCs' job, if they choose to accept it (and the pay is good, with a large bonus for a conclusive report), is to travel to Shalamar, meet up with Lasalles, and provide him with assistance, technical advice (he's not an airshipman), and if necessary transport. Beyond that, their task is to find out what happened to the *Altairean Rose*. To get them there as soon as possible, Grimstone has commissioned a pair of crystals for a direct jump from Earth to Shalamar (a significant expense in itself, note); these are available in their carrying cases immediately. Lasalles will be authorised to commission atonement of crystals for a return trip.

What's Going On

Colonel Grimstone has actually been honest enough, but hasn't told the PCs everything about his business, because he honestly doesn't think it's relevant, and he has no reason to trust them that far yet. The fact is, the Southerly Spice Trading Company has always been prepared to skirt the edges of legality, shipping untested pharmaceuticals and mildly addictive narcotics between worlds, not declaring everything they handle for tax purposes, and so on. (Streetwise-based enquiries can pick this up, and it may occur to an expert at some stage that some of the plants in that garden are said to have interesting properties.) However, Grimstone and most of his partners preserved some sense of ethics.

Unfortunately, the second-generation management of the company aren't so ethical, and have slipped into much more dubious activities, notably including shipping sparrial *slaves* from Ilike to remote island colonies on Ys, where a southern US-based faction is setting up a plantation economy. Richard Cheriton, who was brought up with something more like his uncle's ethics, didn't know about this, but discovered a lot of it on Ys while touring the Southerly Spice offices there. Unfortunately, the local management realised what he'd found and decided that he had to be stopped from reaching Earth. Having him murdered might have drawn attention, and they didn't know how much he'd already told anyone (not much, unfortunately); kidnapping him might be

equally problematic. However, Cheriton blundered into danger by his choice of vessel for the return trip.

The conspiracy have been working with a similar group within High Sirius Paraplanetary, while looking for a chance to obtain a paraplanetary vessel for independent operations. So they brought that plan forward. Most of the crew of the *Altairean Rose*, including the all-important Crystal Officer, were subverted, with a view to rerouting the vessel to Shalamar's north pole.

That required a properly tuned crystal, though. So the conspirators suborned a couple of people in the Navigation Works, who tuned up a crystal for a transpolar jump, swapped them in for delivery to the *Rose*, and faked the records. However, this left some discrepancies, and when Lasalles began making low-level enquiries, one of the contacts he made, a clerk named **Gerard Anouile**, commented on them.

Unfortunately, Anouile in turn was a little too open about his questioning, which got back to the conspirators. They put a watch on him, discovered that he was in contact with Lasalles, and got worried. So they arranged a solution; Lasalles was run over by a steam car while out at night – a hit and run accident – while Anouile was silenced by threats to his family.

Meanwhile, the *Rose* ended up at the north pole, close to a secret slaver way-station. Most of the crew were involved in the plan; those four who weren't, and a half-dozen passengers, are currently being held prisoner in spare slave cells, and kept quiet using assorted drugs provided by the company's less unsavoury secret business. A couple of people have been murdered for resisting captivity. The conspirators are interrogating Cheriton to find out how much he knew and has passed on. They may eventually use him as a hostage to keep his family quiet, or just murder him. A couple of the younger female passengers are being lined up for white slavery; the rest may be dumped on an island somewhere on Ys, enslaved, interrogated for useful business secrets, or just murdered – a lot depends on how depraved the conspirators decide they are.

However, the conspirators don't know that the PCs are on their way.

Arrival on Shalamar

The PCs should reach Shalamar quite soon – there's a chance to demonstrate the rules on the way – and can pass through the basic arrival formalities with no trouble. Although the dominant language on the planet is French, pretty well everyone in a paraplanetary port can and will speak acceptable English. Things are a little gloomy, as they've arrived during the polar night, but the town has very adequate electric street lighting. However, when they arrive at Benoit Lasalles's office, they find only a pair of legal clerks packing up the place, watched by a fancily-dressed, attractive young woman, who is visibly crying. These people can give them the news that Lasalles is dead; the clerks aren't terribly helpful, not being impressed by the PCs and needing to follow correct formalities, but the young woman can be more useful. She'll try to catch them when out of sight of the clerks, if they don't approach her.

This is **Giselle Carrier**, a bartender at a nearby café and Lasalles's sweetheart. (Her English is good but cutely accented.) She doesn't buy the line about her boyfriend's death being an accident, and she can and will warn the PCs that the local gendarmerie are generally either corrupt or lazy, and certainly cannot be trusted with secrets. She knows that he was recently investigating some kind of matter that took him to the Navigation Works, where he was dealing with someone called Gerard Anouile. In fact, he brought Anouile into her café only the other night – “a clerk, it was clear – a mousy little man”. Giselle is willing to help the PCs in any way that she thinks will get revenge for her Benoit, but she also wants to keep her neck intact.

The Navigation Works: This is easy to find, and polite enquiries or cleverness can locate Gerard Anouile. However, he's *scared*. Fortunately, he can't hide it terribly well (Acting-6). The trouble is, the more threatened he feels, the more he'll clam up; he may let slip "I have a family!" The other thing he might let slip is mention of "the special store"; in fact, he's now worked out that the crystals delivered to the *Altairean Rose* were drawn from there, swapped in for standard Marrakesh-tuned crystals. "It is supposed to be a special reserve of standard crystals in case of shortages – but it is only drawn upon in unusual cases..."

Getting into the special store requires either ingenuity or cat burglary (or both). Actually, it's a rotating store of crystals tuned for the north pole. Pasted inside the lid of each carrying case is a set of coordinates that are clearly for a location near a north pole *somewhere*.

The Authorities: If the PCs try contacting the local gendarmerie about anything, they are directed to **Inspector de Moulin**. He's only marginally corrupt, but he's not terribly competent either, and he has no time for non-francophone tramps and rogues. He's a dead end.

The *Altairean Rose* inquiry is being handled by the local port authority, and shuffled up the levels of an all-too-French-style bureaucracy. It's being handled by genuine experts, but they're being slow and analytical, and they aren't interested in working with under-educated civilians.

Threats: If the PCs fuff about too much while making themselves too visible, the conspirators will of course latch onto them. This can mean attempted beatings from local thugs (ST 12, DX 10, HT 10, IQ 9, Brawling-12, punch 1d-1 cr) in dark alleys, mostly to slow them down; if they're too visibly successful, they may find a steam car being driven at them on the streets, or even people coming after them with rayguns (skill-11, 2d burn, sur, Acc 2, RoF 3, Rcl 1). Unfortunately, all these people were hired in dubious bars by competent underworld fixers with far too much protection. Ultimately, the PCs should be nudged into action.

Moving On: If the PCs don't acquire a jump crystal from the Navigation Works, they'll eventually get an anonymous note delivered to them at the port buildings; it contains just those same north polar coordinates. This is from Gerard Anouile, whose conscience has got the better of him and who sneaked a look in the special store. It could be any north pole, of course, but checking puts it about 65 miles from the north magnetic pole on *this* world, i.e. jump distance. Checking a map places it in an empty area icy plains, many miles from the world's north polar port. Of course, they'll have to attune their own crystal for the difficulty 5 jump.

And if they're too obvious about anything, the PCs will see a couple more airships take off shortly after their departure. Once they're out of sight of the port, these two armed craft will swing in for an attack run...

The North Pole

Our heroes may arrive in Shalamar's sunlit arctic in some haste, possibly in a damaged airship. However, if they're close to the conspiracy camp, they can swoop in for a surprise attack, and if they're a long way away, they can sneak in. Either way, they do start with the element of surprise; indeed, the conspirators have a strictly nominal guard system. If the PCs think of just going off to the local gendarmerie with a report, remind them that they may need more evidence, and that their opponents will presumably get a message in from the south pole sooner or later. Tactics at +3 remind them that surprise is *really valuable*.

The camp is a cluster of well-insulated huts, the smaller ones acting as quarters for a dozen or so guards, slave-handlers, and now airshipmen, and two larger ones intended as slave-holding quarters,

now being used for human prisoners. However, a couple of cells do hold a half-dozen sparrials, all drugged up the eyeballs in ways that Mr. Norriemae will recognise; terrestrial cinnamon has this effect on his people. The locks used here are chunky but easy to pick (+2 to Lockpicking); they're intended to keep prisoners *in*, not anyone out.

The human prisoners include a rather battered Richard Cheriton (he's been questioned a lot) and a couple of outraged and terrified respectable young women, who have gathered what fate may be in store for them. Getting guns to the prisoners may be effective, but could also cause things to get messy really quickly.

There are also a couple of steam-powered tracked vehicles, designed for arctic operations, in a shed; these might help for a quick getaway.

Conclusions

Getting any prisoners to the arctic port would end the scenario; the local gendarmerie are somewhat corrupt, but not entirely bought, and can't afford to ignore something like this.

Getting Richard Cheriton back to Earth gets the PCs their bonus. It also means chaos for the Southerly Spice Trading Company (and High Sirius Paraplanetary), as different factions clash for control or go to prison. Bonus points to the PCs if they work out that tact could be useful...

Altairean Rose Scenario – World Notes

Altair: A low-gravity ball of rock with a chilly, thin atmosphere (at the poles and equator alike) that can only be breathed with a compressor mask; airships tend to start descending on arrival, and life appears to have died out here. Believed to be at the limit of parplanetary resonant compatibility. Has nothing but a cluster of naval and scientific stations – but the latter may be researching jump data for unknown worlds beyond.

Apex: Another cool, thin atmosphere, but enough air and water to support life – but the latter is not very useful for human purposes. Thought by some scholars to have been the site of some kind of battle or war among the Horusians, so there are more researchers than naval personnel here.

Nusku: A bustling world, with tundra-forested islands at the poles and steamy jungle islands in more equatorial regions. Nusku also seems to have been a major Horusian world, and has a large “native” population of humans who were evidently brought there in ancient times. These have mingled with immigrants to form a bustling, politically complex world with many options for trade and political intrigue.

Ziggurat: More habitable than its neighbours, with a hot climate that scales down to merely “mostly cool” at the poles. The large islands scattered around this mostly-oceanic world are the subject of some colonisation efforts that are however constrained by the clouds of irritant pollen that drift through the atmosphere, making filter masks a necessity while outdoors. The small human population left on some islands by the Horusians is unworried by that.

Agidda: Tidally locked, and mostly developed as a way-station on the route to Nusku; the atmosphere is short on oxygen (and long on slightly irritant gases). However, every parplanetary power insists on having an outpost here, and everything is said to be for sale in the great enclosed markets at the magnetic poles.

Mesh: An ice world – brutally cold at the poles – with an atmosphere that requires compressor masks and only lichens, mosses, and insects by way of life. Holds only a fuelling station and a few astronomer-philosophers researching possible outward parplanetary routes.

Barnard: The second world reached by parplanetary craft, and the first where Horusian remnants were discovered. Unfortunately, it’s a rockball with an unbreathable high-negligible atmosphere – but German, American, and Belgian companies are conducting profitable gem-mining operations near the polar stations, which are guarded by mercenaries and Pinkertons. Horusian relics fetch a high price and are frequently smuggled.

Earth: Humanity’s home world.

Prometheus: Orbits Alpha Centauri, and was the first world reached by parplanetary craft. Forested at the poles and scorching at the equator, it has a scattering of colonial settlements from, seemingly, every culture on Earth, and a few oddities such as the Sisterhood of Penthesilea.

Ember: Mostly an airless ice world, but experiences very variable climate due to a very variable sun. When this flares up, enough atmosphere forms to permit parplanetary visitors. All of which would be nothing but a scientific curiosity if some of the atmospheric chemistry wasn’t so interesting in odd corners of the chemical industry – so the place gets visits from “gas miners”, mostly Germans and Japanese, out of Prometheus and Loki.

Peraspera: An icy world with an actively poisonous atmosphere, that killed many early visitors; hence, this is yet another transit station – but a busy one.

Loki: An icy world racked by freezing acid gales, and covered in frozen acid. Oddly enough, it has no permanent residents.

Marrakesh: Another icy rockball with no known life and an unbreathable, thin atmosphere – but this is a stepping-stone on the way to the colonial wealth of Ilike, so the fuelling station here is busy, and there is a fully functional German-run Navigation Works.

Junction: Tidally locked, icy, and with an atmosphere lacking (of all things) enough carbon dioxide, but with oxygen thanks to its very primitive native life. Junction was once thought of as a potential colonial outpost, until better options were identified. Now, the old colony is declining as former colonists stream through the polar way stations.

Ilike: A pleasant, if somewhat chilly, Earthlike world; the polar regions are as cold as Earth's, but passengers can take ship to the equatorial colonies. Homeworld of the sparrials, who colonists are learning to tolerate.

Midway: Bitterly, bitterly icy, though explorers report Earthlike conditions at the equator, with pockets of life, where a few experimental colonial outposts have been established. Visitors need heated costumes and masks. The polar stations are full of bold explorer types.

Dismal: A cold desert world with nothing to recommend it. A few temporary inhabitants are still confirming its lack of usefulness or appeal.

Shalamar: More recently settled than Ilike, mostly by romantic French colonists who say that they like the heady, dense atmosphere. Cold enough at the poles, mild at the equator, and with large deserts increasingly criss-crossed by colonial railways that link the colonial lake-towns.

Procyon: Thin atmosphere, low gravity, and no surface water – but some mining and good way station facilities.

Hades: Named by an explorer who knew Dante's description of Hell as frozen – yet another way-station on the way to something slightly better. Again, just enough primitive life to explain the traces of oxygen in the atmosphere.

Ys: A tropical world, with sea at both the poles – but with settlement by various minor nations just getting underway, as they seek to escape the shadows of their larger neighbours.

Hephaistos: A hot world with a suffocatingly steamy atmosphere – but a native race of uncanny, two-armed, four-legged amphibious primitives, who offer strange trade-goods to the small human island outposts around the south magnetic pole.

Inferno: Lives up to its name; human craftsmen are still perfecting the refrigerated equipment necessary to visit such places comfortably. Fairly substantial polar colonies pursue reports of rich gold mines, however.

Remus: Recently discovered, warm, and quite promising for settlement aside from the chlorine-tainted atmosphere. One frog-like native species may be sapient.

Calgary: Bitterly cold at the poles and chilly elsewhere, with a dense atmosphere that demands special breathing equipment – but which allows life to thrive in fertile pockets. American newcomers on a few islands are investigating its potential as a mining colony.