

ION TRAILS

The WSFS Armadillo Inflight Magazine

PREMIER ISSUE

August 3005



Never underestimate the power of local knowledge

Earth



Neighbours

Skaro



Slaves

R'lyeh



Food

With branches in over 700 planetary systems,
Hainish & Shing Banking Corporation knows
that a little local knowledge goes a long way.

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**The galaxy's
local bank**

White Star Federated Spacelines



Welcome Aboard



Welcome to the WSFS ARMADILLO

White Star Federated Spacelines is delighted to welcome you on board its newest and most luxurious cruise liner, the *WSFS Armadillo*. Built by the Govan shipyards in Glasgow, the ship is the first commercial spacecraft to be fitted with Scottish Leyland's revolutionary Rennie-McGrory "fittle" engines allowing safe in-system FTL travel. This new technology promises to revolutionize space tourism by vastly reducing the time spent underway in real space. Further details about the ship can be found in How the Ship Works and the Technical Specifications section at the end of this brochure.

Our voyage in the coming months will take in many of the most stunning sights in the galaxy. This brochure features descriptions of many of the attractions on offer by leading travel writers. Please take time to browse our Destination Guide section.

As well as a multitude of tourism opportunities, the *Armadillo* will be offering a wide range of in-flight entertainment. White Star staff are busy recruiting the biggest stars from the many star systems that the ship will visit. Due to relativistic effects caused by our hyperdrive engines, we are unable to list the full entertainment programme in advance. However, you can find details of our Glasgow-based events schedule in the Pre-Flight Entertainment section of this brochure. Details of In-Flight Entertainments available during our time in hyperspace are also given.

Captain Standlee and his crew are delighted to welcome you on board their ship. To further your enjoyment of your journey we encourage you to browse the Meet the Crew section so that you can better make the acquaintance of the White Star staff and guest entertainers who are here to make your time on board the *Armadillo* the voyage of a lifetime.

Passengers are also requested to pay careful attention to the safety announcements featured in this brochure.

Destination Guide

The Armadillo will be visiting many interesting destinations during its voyage, all of which are guaranteed to bring joy of some sort of one or more species amongst our passenger list. Sadly not all passengers appreciate the same sort of environment. In order to better help you decide the best destinations for groundside tours we present this guide written by some of the most famous and brilliant travel writers in the galaxy.

Visiting Bad Town

By Jay Lake and Ruth Nestvold

The port of Bad Town is for the truly adventurous at heart. Built around a cometary body orbiting the red giant Qualle-a17 (a class B2 star) it provides an interplanetary experience unlike any other. The vistas are unique, the city's atmosphere something you will never forget. If you are interested in visiting, be sure to inform the ship's purser upon boarding: the *WSFS Armadillo* only makes port at Bad Town when sufficient passenger demand exists and restraining orders have lapsed.

In the event that a stop has been scheduled, the casual tourist is advised to remain on board with the cabin's intrusion countermeasures set to "fatal" or higher. If you intend to venture forth, management recommends at least a Class IV munitions license with ranged energy weapons endorsement and appropriate armaments of your choice. It is also possible to hire off-duty crewmembers for escort duty, at their own risk and for a substantial fee.

As a free-floating city in a power-assisted cometary orbit, Bad Town experiences highly variable seasons. During close approach to Qualle-a17, Bad Town's methane ice cores flare and outgas in a spectacular show which the city's Tourism and Salvage Committee claims results in a fatality rate of just under

**"Visiting Bad Town is like a series of vicious kicks in the teeth."
- Dozois the Gardener**

eighteen percent. (Unfortunately, this particular attraction cannot be viewed during a trip with the *Armadillo*, as management prefers to avoid the port during approach.) In the immediate postperihelionic period, Qualle-a17's blood red light sets the duraglass towers of Bad Town sparkling with a luminance that the great poet Dozois the Gardener once described as "hell's own ruby lasers shining in my sweaty eye." Nearer to apohelion, methane sublimation and the city's gaseous exudations combine to form an astonishing lacework that interweaves the towers with, to quote Dozois again, "a glittering grace rarely seen outside the dreaming mind of God."

Bad Town's healthy economy has its basis primarily in a transcription error in the trade factoring clauses of the Third Treaty of Epsilon Eridani. As a result, unregulated time-compression futures and produce massing less than 800 grams per individual harvestable unit (IHU, as defined by the Treaty Authority's Trade Board) cannot be taxed within Bad Town's orbital jurisdiction. The corresponding gray markets control civic operations. Tourists should be aware that the classic New Old New Zealand Oxygen Scam (NONZOS) is frequent in Bad Town, but as it is operated by what serves as Bad Town's government, it cannot strictly be considered unlawful.

When visiting Bad Town, be sure to shop in the delightful Skank Quarter, where native handicrafts in imitation of a hundred worlds can be purchased alongside delicious freshly-roasted skewers of meat-related protein mass. Please note that upon re-boarding *WSFS Armadillo*, tourists who have breached oral-esophageal barriers will be required to remain in quarantine in the UV chamber for seventy-two hours.

Enjoy your stay in Bad Town! Should you choose to remain in your cabin in the case of a stopover, pay-per-experience entertainment fees will be waived while in port.

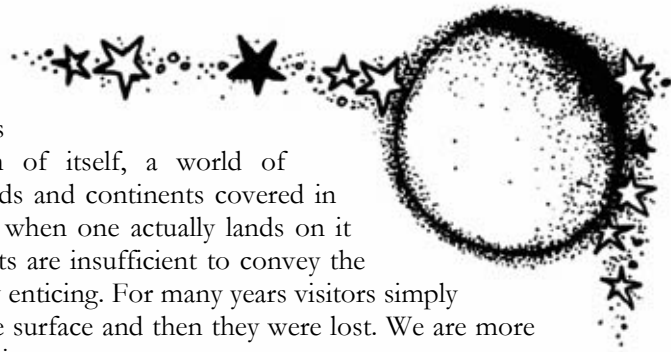


Visit ***Bad Town***, and be yourself!

The Planet of Perfect Happiness

By Rhys Hughes

The planet of perfect happiness is called Inclova and it is important that visitors are aware how to enter it safely. From space it appears exactly like a fictional description of itself, a world of beautiful oceans and delightful islands and continents covered in trees heavy with delicious fruit, but when one actually lands on it one soon learns that written accounts are insufficient to convey the true allure of the place. It is infinitely enticing. For many years visitors simply leapt out of their spacecraft onto the surface and then they were lost. We are more careful now and take suitable precautions.



A visitor who is unaware of the peculiar hazards of perfect happiness will arrive at Inclova eager to be greeted by the smiling people he has seen strolling the forest glades or swimming the warm surf. The moment he leaves his spacecraft and approaches them it will seem to him that they have vanished. The forests will be deserted, the surf empty, and worse than this, he will vanish himself. In a rush of confusion he will be aware only of intermittent flashes around him, then a sense of reeling, of falling into a runaway future, followed by oblivion, a natural death from old age.

This planet is not a deliberate trap. It just so happens that our moods dictate the velocity of time. A painful or boring event slows time, whereas an exciting or joyful event speeds it up. The happiness in Inclova is perfect. Therefore time reaches its maximum velocity. The inhabitants are barely aware they are alive before those lives are finished. To an outside observer, everything proceeds at a normal pace, the lives under scrutiny are full and measured. The moment this observer steps over the threshold of his spacecraft and becomes part of the planet, suffused with its perfect happiness, he loses his grip on his own existence.

The old methods of entering Inclova safely have been discredited. An assistant with a long pole would stand inside the open airlock of the spacecraft and jab the visitor at frequent intervals to keep him in pain and thus slow down his subjective sense of passing time. But if the visitor ventured beyond the pole's reach he was doomed. Cords tied around his neck and tightened from afar also failed. These cords became snagged on trees or were entangled around the legs of inhabitants visible from inside the spacecraft but invisible from the planet's surface, so rapidly did they live their lives, one blink from birth to death.

This planet is not a deliberate trap. It just so happens that our moods dictate the velocity of time. A painful or boring event slows time, whereas an exciting or joyful event speeds it up.

The only reliable technique is to stuff the visitor's many pockets with letters. Every ten paces he reaches for a letter and reads it. The first is from his father: he has been disinherited. The second is from his employer: he has no job to return to. The third is from his

girlfriend: she no longer loves him. And so on. Whether these letters are true or not is irrelevant. The regular reinforcement of bad news will keep him miserable enough to explore Inclova without plummeting instantly into a vertical future. The more pockets he has, and the more to regret, the longer his possible stay on that blissful, deadly world.

NOTE: *The planet of perfect happiness, Inclova, can be pronounced either as "In Clover" or "Ink Lover." Both are correct and appropriate in meaning. But the name is actually an anagram of the surname of Italo Calvino, author of INVISIBLE CITIES, the book that inspired the composition of this piece.*

Chernobyl

By Ken MacLeod

Chernobyl (PSR B1871+13 II) is high on the list of places to visit before you die. Indeed, many who have visited it have died shortly afterwards! Tidal-locked to a fast-spinning pulsar which it orbits at 0.3 AU, its unique attraction is its location – right in the pulsar beam! Sweeping across the sky every 2.7 seconds, the beam delivers as much radiation as a nearby nuclear bomb. The pulsar sheds no light, of course, but you'll hardly notice – the sky glows in the dark!

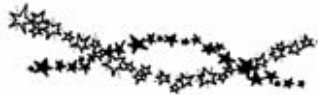
The peculiarly eroded landforms provide a dramatic setting for the cave systems, ruins, and alien and posthuman artefacts, which you can observe through your porthole of heavily leaded glass. In many cases, you'll find that the artefacts observe you!

Radiation shielding is provided for all excursions. Resurrections are observable for all provisions. Decorum is preserved for all resurrections. Chained-logic verbal loops are symptomatic, diagnostic, and recursive. Exorcisms are provided for all observations.

Before embarking, please back up your memory to a secure server.

Recommended for: adventure, sightseeing

Not recommended for: school trips, family holidays, honeymoons



Lubricia, Pleasure Planet (“World of Lust”)

By Ian Watson

A little way past Tau Ceti a wormhole allows a visit to a remarkable and colourful parallel universe and a world devoted to radical delight. Recommended only for mature travellers with special needs, eager to explore extreme pleasures of the flesh. Tour insurance is invalid for this 5-night excursion (equal to 3 hours *Armadillo* ship-time, thus a bonus way to extend your vacation). Sanity waivers must be signed.

Supplement payable: 31,428.57 credits – including local taxes, security charges, powerful hexes, joy-juice aphrodisiacs, accommodation in one of the famous Sensuality Suites of the Lubricia Hilton (including 2 phantom bed companions), free entry to 2 houses of ecstasy & 3 obscene rites or 3 perverse revels depending on availability.

Local religion: worship of Slaanesh, Lord of Pleasure. Admire the many extravagant statues of this God in the streets. Be amazed at His/Her temple and the rituals of its priestesses.

Local language: Imperial Gothic. Useful phrases: (to summon room service): *Veni, Voluptas!* (to deter over-persistent Daemonettes): *Ego te exorcizo!*

NB: As opposed to the “human” inhabitants of Lubricia, Daemonettes are paranormal manifestations of lust, tall and white-skinned with big green eyes and long flowing white hair. A must for connoisseurs of bizarre body-art. Daemonettes will provide exquisite ecstasies; speciality: sweet torments. However, the default form of their hands is a crab-like claw, and of their feet eagle-like talons; and if over-excited they may assume this physiognomy. Beware, too, of their very flexible, razor-edged tail. An auto-activating adamantium cod-piece may be worn for protection, alternatively an impervium “40kondom” plus scroto-shield. Woundfix body-lotion should be applied liberally beforehand.

Mementoes of your visit are available from Ann Summers Slaanesh Souvenir Shop at Lubricia spaceport. Don't miss the erotic jewellery and Daemonette chainmail underwear.

Phantasie-Clichay

By Glenda Larke

Planet size, gravity, proximity to sun, day/year/season length etc

Identical to that of Earth to an extraordinary degree.

However, travelers should be aware of the peculiarity of this planet – there is no southern hemisphere. Regions to the north are always colder and bleaker than those to the south.

Note also: no matter where you are on the planet, traveling east invariably means reaching an ancient culture known for its vast learning, beautiful women and martial arts, coupled with a nasty reputation for incomprehensible barbarity. Neither of these paradoxes is fully understood.

Geography

The shape of each country of Phantasie-Clichay is more or less the same: square, with high mountains invariably forming the northern borders. Geomorphic studies indicate a low correlation between surface features and any known logical explanation of such land formation.

Note: Impassable mountains can be passed by navigating through underground cave systems.

Politics

The politics of Phantasie-Clichay are as antiquated as its socio-economic base. Do not expect to find any nation that has even an elementary oligarchy, let alone a decent democracy. Rulers are absolute, and are generally absolutely awful. If there *are* benevolent monarchs, then they about to be overthrown by a Dark Lord. Further along in this cyclical history, the overthrown Dark Lords will be replaced by benevolent heroes, not by democracies as one might expect.



The planet of Phantasie-Clichay has no southern hemisphere

Customs & Courtesy

Take special care to be extra polite to goatherds or shepherd boys or lowly apprentices. At least one will turn out to be a long-lost prince or a future sorcerer of power.

Money

Gold coins are the preferred currency in all nations, invariably mined by dwarves, and hoarded by dragons. Who mints the gold remains a mystery. Neither mining nor hoarding has an effect on inflation, recession or other economic trends. Travelers are advised to bring their own bullion as electronic instant money or credit transfers are not accepted.

Transportation and Getting Around

Usual mode of travel is on horseback, or foot, or sailing ship. Wheeled transport is rare and carriages are almost unheard of, which is puzzling, given the sophisticated level of carpentry, crafts and metalworking on the planet. Winged transport is available in some countries, but tends to be unpredictable.

Maps

Don't waste your money. Like most tourist maps everywhere, they don't make sense and distances are invariably inaccurate. At best, maps are incomplete with missing cities and towns that will mysteriously turn up at a future date on other maps.

Guides

Guides are available. They are usually elderly, venerable, sporting beards, long white hair and magical staffs. Unfortunately, they have a propensity to speak in riddles, and an inexplicable tendency not to explain things known to them until it is too late. Be warned.

Health concerns

Doctors and hospitals are unheard of. However, herbalists and healers can be outstandingly good. For reasons not fully understood, normal diseases (e.g. diabetes, cancer, Parkinson's, or even minor problems such as urinary infections and the common cold) do not occur on the planet. However, wounds as a result of violence are commonplace and can be fatal. Bullet-proof vests are an excellent addition to your packing and work well against a variety of weapons, including many magical bolts.

Sex tourism

The good news is that unwanted pregnancy, even in the absence of contraception, is rare and sexually transmitted diseases do not exist. Prostitution is not all that common, although a female sex-worker is always a Woman-With-a-Heart-of-Gold-and-a-Sad Story-To-Tell. Male sex workers do not exist.

Advice to gay travelers: sorry, gay communities of any kind are hard to find.

Security

War involving vast armies (and occasionally dragons) is common. Please consult your embassy on the present situation before travel. Travelers are advised that Galactic laws concerning Human Rights do not apply anywhere on the planet and that dungeons are not monitored by any Human Rights group. Or, in fact, by any Elvish/Halfling/Dwarvish/Orcene Rights group either.

A special note on Dark Lords: Every country has one. Their peculiarity is their need to destroy anything and everyone, a puzzling aspiration not yet fully explained by psychologists. They are usually – after considerable trouble – kept in check by the local heroes and heroines, but travelers are nonetheless advised to avoid all Dark Lords. Especially dangerous are the charming Dark Lords, who may not be instantly recognisable. Other types can be identified by their dark cloaks with hoods, evil smiles and/or sardonic comments.

Shopping

Phantasie-Clichay is *the* place to purchase Artifacts of Power. Most commonly gold rings or swords, they can also take the form of gemstones or other jewelry. Note that the cost of such items may be higher than you expect, and all Artifacts of Power can also make you the target of Evil Sorcerers and Dark Lords. Be careful you don't get ripped off.

Accommodation

There are four main types to suit all pockets: The Castle Hewn From Living Rock; The Wayside Inn; The Shepherd/Goatherd's Hut; and The Cave. Castles are by invitation only. Huts are free, but the accommodation is very basic. Needless to say, the owners of huts are poor. Friendly, but poor. Caves can be dank and exceedingly dangerous, inhabited by inhospitable sentients (e.g. dwarves, orcs or trolls) or predators (dragons rank high on the list). Inns are always the scene of extraordinary happenings, namely cheating at cards, performances laden with meaning by famous bards and minstrels, brutal fights involving bullies, raids by law enforcement officers hunting fugitives, and the spectacular escapes of said fugitives. In fact, most inns will guarantee to give you a hectic evening. Do not expect to get a good night's rest.

Sight-seeing

The best plan for off-world travelers is to join a Quest. This takes the form of a Motley Band traveling with a Guide (q.v.). A Quest invariably visits all major tourist sites, inclusive of Wayside Inns, Castles Hewn of Living Rock, Impassable Mountain Ranges, Raging Torrents, Dragon Lairs, Dark Dungeons, etc. In addition, you will meet many of the local celebrities: a wise mystic, a cryptic crone, a good wizard, an evil sorcerer, a seasoned wise warrior, a clueless but honourable hero and so on.

As a Motley Band always includes some non-humans – such as Halflings, Dwarves, Elves, Talking Animals, etc – a Quest is also a splendid opportunity to come to know and love different sentient species. Especially recommended for those who retain politically incorrect prejudices. In addition, for single tourists, a Motley Band will also include the Love of Your Life, although you may have a hard time believing that in the beginning. She or he will probably be in disguise or will give a good imitation of being either a virago or an arrogant sod. Be patient (success is guaranteed) and enjoy your trip!

Further reading

Passengers intending to visit Phantasie-Clichay can find further information on the ship's intranet at: <http://members.ozemail.com.au/~imcfadyen/notthenet/fantasy.htm>.

Alternatively, copies of the excellent *Tough Guide to Fantasyland*, by Diana Wynne Jones, are available in the on-board store.

The Dark Side of Vilkinshneep

By Jeffrey Ford

For those who think Light is overrated and in far too great an abundance in the universe, come over to the dark side on the planet which the famous galactic traveler, Bib Zikyith described as a hot, hard wikkiffle up the old rootdootheer of wanderlust. That's right, swim through the night, like a three finned Shinswil and bask in the wonder of the iridescent gibblepips, flitting like sparks of green puufshee above the roiling, black grasslands of the Oinidule Plain. Lighten your load in Vilkinshneeps meager gravity where the even the truculent can dance the Furknop like Simi Shmuth-Tog of the Royal Denvilian Ballet. Guaranteed!!! Bathe blindly in the onyx, Perullian springs, allowing spyra-spine organisms to bore clean those hard to reach memories, and then go for a larchthorf bleeding in the heated Caves of Utter Night. Once you've been bled and bored like a supine Quenkilspo, take a seat on the Hunchelbex Speeder for a first-class journey to The Coal Palace (Oodiguterat) where you will be treated like a visiting dignitary from the Shmeckdulian system. Check your eyes at the door, for at this five star resort, you will be slimpered, gabbledapped, storpeed, and drepbeckled in the foodar like a red nailed Goosher. Be entertained by the great Earth songster, Daddy Long Legs of the Afternoon. Witness his galactic command performance of "Excentuate the Bleshmo" while you sip shitjip from lipdippers to your hearts' content. On Vilkinshneep, the endless Night is sheer Delight.

Never underestimate the power of local knowledge

Earth



Plant

Middle-Earth



Person

Trantor



Miracle

With branches in over 700 planetary systems,
Hainish & Shing Banking Corporation knows
that a little local knowledge goes a long way.

HSBC
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Biblios

By Andrew J. Wilson

One of the pleasures of taking an interstellar cruise is the chance to relax with a good book, so what could be more refreshing than a world full of literature? Beautiful, baffling and bizarre, Biblios is nothing less than a planetary library dedicated to the accumulated knowledge of a mysterious arthropod race.

In an electronic era when we use screens and head-up displays, it's amazing to think that everyone once read from dumb matter: publications issued on paper, a form of pulped tree, that was marked with ink, a coloured fluid ejected by squid! Other species had their own kinds of "hard copy" too, but none so amazing as the inhabitants of Biblios, who were their own records.

This destination was originally thought to be a planetary necropolis – a chilly thought indeed! – but happily, its discoverers soon realized that the creatures preserved in the sky-scraping termite mounds that cover the surface were not dead but simply dreaming. Every dormant insect is covered with similar but definably different markings; not just on their carapaces, but in the membranous patterns of their wings and even their compound eyes. In effect, they're living books!

Alex Anders, Chief Curator and Head of the Tourist Board, explains: "Scientists now believe that the Biblioids, as we call them, evolved this very personal way of recording information because they couldn't communicate complex information by either sound or movement. They read each other by both sight and touch."

Alex is fascinated by the creatures he studies and preserves. "The Biblioids developed such a complex social system that they needed to preserve their knowledge from one generation to another. We believe, that the success of this strategy meant that they then evolved specific castes of insect, each individual member being part of a different category of living book, like a biological Dewey Decimal System!"

The researchers on Biblios think the extraordinary inhabitants finally reached a pinnacle of achievement that meant there was nothing else for them to learn – about their own planet, at least. "That was the point where the entire civilization went into hibernation," Alex says. "Now they sleep in suspended animation, waiting for something to awaken them again..."

What could that be? Alex has a few ideas. "The Biblioids are all hosts to what were originally thought to be parasites – the bookworms, we call them. But now we believe these are actually genetically engineered symbionts designed to catalogue and index this living library. And after so much time, the process must almost be complete.

"Of course, alternatively, the bookworms could be a kind of library ticket because they expire after less than a month outside their hosts."

Visitors to Biblios are encouraged to explore the towering library mounds, and experiment with the prototype translation software Alex and his colleagues are developing.

"There are so many fascinating forms of this species, each with its own story to tell," Alex says. "Some are relatively young – or recent, if you prefer – but if I had to pick favourites, I'd go for the really great old ones." It's hard not to imagine the enthusiastic curator capitalizing his words for emphasis when he speaks about his subjects.

So have fun on Biblios. You never know, you might help Alex and the team solve this fascinating riddle.

"After all," he adds, "the Biblioids could wake up at any time. And I want to read them before they start reading us!"

Come To Z'Ha'Dum For The Holiday Of A Lifetime!

After an extensive period of repair and refurbishment, the government of Z'Ha'Dum is proud to announce the opening of its borders to tourists from all across known space.

From any one of the many nebula-class hotels in our planet-spanning canyon cities, you will be whisked off to sights that will challenge your senses. Under the watchful eyes of our arachnid guides you will be secure and safe at all times when you behold such marvelous spectacles as:

- **The Inaugural Z'Ha'Dum Flower And Decorative Biomass Show**, featuring astonishing and occasionally sentient plantlife from a thousand worlds;
- **The 98th Interstellar Virtual Reality Festival**, bringing a whole new meaning to the word 'interactive';
- **The Shifting Shadows Exotic Floor Show**, displaying Shadow fashions both ancient and modern;
- and the ever-popular **Z'Ha'Dum Military Tattoo**, complete with hoverbike acrobatics, spacecraft flybys, and re-enactments.



Fun For All The Family!

Personal testimonials from recent happy visitors:

"Particularly enjoyed the underground rollercoaster ride..."

- **Mr Sheridan, Babylon 5**

"...the Obelisk Gondola Rides were quite breathtaking...." - **Mrs Delenn, Minbar**

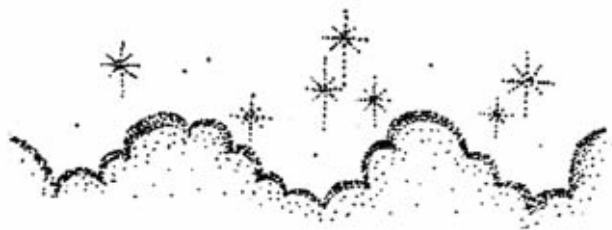
"Nice decor, moody..." - **Mr Bester, Earth**

"Whatever you do, you have to see at least one Shadows soccer game! Those eight-legged boys can really kick a ball!" - **Mr G'Kar, Narn**

"Loved the Morden Centre for the Arts, just couldn't get away!" - **Mr Molari, Centauri Prime**

Yes, Z'Ha'Dum - Live The Dream

(Mike Cobley wrote this of his own free will without any coercion whatsoever, honest.)



Phlogistara

By Juliet E. McKenna

For the ultimate in adventure destinations, visit Phlogistara – the galaxy’s hottest new holiday spot!

Start your vacation in our lively capital Ignis City. Be dazzled by the Phoenix Club’s nightly Combustion Cabaret.¹ Dine on mouth-watering barbecue and local char-grill specialties at Hephaestus’ Restaurant.² Shop for the latest in neo-asbestos fashions and flame-retardant accessories in the Alighieri Mall before taking a hydrocarbon safari with Dante Excursions³. See the fabulous gas geysers of the Prometheus Peninsula and go salamander watching on the burning rivers of Periphlegeton⁴. Be astounded by the natural grandeur of the Vulcan Canyon and the White Phosphor Coast. When we say our sunsets set the sky on fire, that’s no idle boast⁵.

Phlogistara! The coolest place for you this summer. Your friends will be incandescent with envy.

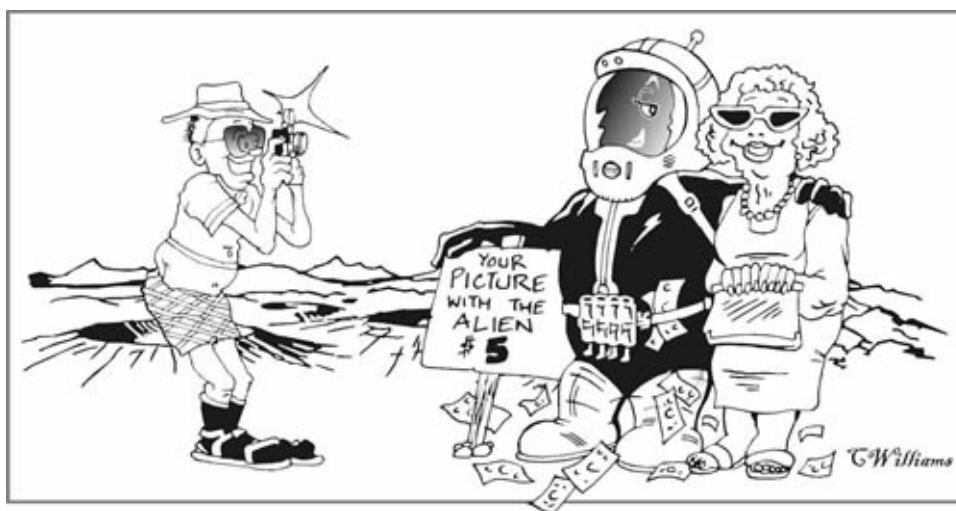
¹ 25% insurance surcharge for all hydrogen-exhaling species. No exceptions.

² When transshipping at our orbital facilities, tissue-typing with an accredited medical facility familiar with your species is recommended.

³ Dante Excursions accept no responsibility for anything less than full-thickness burns of any passengers’ epidermis, exoskeleton or carapace.

⁴ Visitors are reminded that salamanders are a protected species. Exporting any goods made from their eggs or skin is strictly forbidden under Inter-System Haz-Mat Regulation 451.

⁵ When hiring sub-orbital craft for independent travel, visitors are recommended to ensure hull plating is rated to 1500°C minimum.



PreFlight Entertainment

To celebrate the launch of the **WSFS Armadillo**, White Star's most modern and luxurious and spaceliner, a full programme of pre-flight entertainment is being provided for passengers and the people of Glasgow. In particular a series of gala events will build up to the launch party on Monday. Star entertainers with a galaxy-wide reputation have been engaged to wish the *Armadillo* well on its voyage. These include the famous comedy duo, Phil Raines and Ian Sorensen, of whom Zaphod Beeblebrox once said, "whom?"

Naming Ceremony and Civic Reception

The festivities begin on Thursday afternoon with the naming ceremony for the *Armadillo*. Civic duties permitting, this will be performed by The Rt. Hon. The Lord Provost of Glasgow. White Star senior executives, Commodore Sir Vincent Docherty and the Rt. Hon. Sir Colin Harris, KBE, will welcome passengers on board and introduce our most honoured first class passengers to the ship.

Lucas Back In Anger

Our Friday night play, *Lucas Back In Anger*, is Reductio Ad Absurdum's latest epic production. Following on the huge success of their previous shows (which include *The Matrix: Remaindered*, *A Fistful of Hobbits* and *Dune, or The Sand of Music*), Phil Raines and Ian Sorensen present their allegedly spectacular version of the complete *Star Wars* saga – all six movies in 60 minutes. See how expensive special effects can be recreated using only cardboard and a vivid imagination. See amateur dramatists being much more amateur than dramatic. You'll laugh, you'll cry, you'll kiss an hour goodbye!

Masquerade

Not sure what to wear on distant planets and in alien cultures? Fear not, on Saturday night Mme Giulia de Cesare and a host of lovely and talented assistants will present a spectacular costume show featuring outfits for all parts of the universe (and perhaps beyond). Costume designers from all parts of Known Space (and other universes) will compete to display the best and brightest ideas in fashion to our passengers. Leading fashion experts, Sue Mason and Teddy, will introduce the show. Additional entertainment will be provided by a live performance of the famous game show, *Ready! Steady! Sew!* (webcast as *Iron Costumer* in some planetary systems) introduced as always by Kevin Roche.

Hugo Award Ceremony

A particular feature of the *Armadillo*'s inaugural voyage will be the presence on board of some of the galaxy's finest science fiction writers. On the Sunday evening the *Armadillo* will pay host to the presentation ceremony for this year's Hugo Awards (now the longest running annually presented literary awards on any human-inhabited planet). The ceremony will be preceded by a gala reception for first class passengers hosted by Captain Standlee, and followed by a night of partying leading up to...

The Launch

Monday is when it all happens. The *Armadillo* will leave Glasgow for Alpha Centauri on the first leg of its galaxy-spanning cruise. Due to relativistic effects she is not due back in Glasgow for several centuries so we expect a fine send-off from the city.



The Time-Warp Hugos allow everybody to go back in time, and all claim authorship of the same book.
Everybody wins a rocket!

In-Flight Entertainment

On-board performances by a range of galaxy-wide famed performance artists are being arranged for each port of call. However, while we are in hyperspace the *Armadillo's* crew of experienced entertainers will be available to help you while the days away.

Concerts and Shows

Topping the bill on board the *Armadillo* is the interplanetary singing star, Diva Plavalaguna. She will be performing arias from favorite operas on a weekly schedule. Also resident on the ship is the famous clone singing combo, the John Lennon Sisters. And in honour of our homeport of Glasgow we welcome on board the Franz Ferdinand tribute band, Darts of Pleasure.

Other entertainment will be provided by our comedy duo, Phil Raines and Ian Sorensen, and by the renowned performance artist, Raven O'Neill.

Holodeck

The *Armadillo*'s holodeck will be providing a range of community entertainments during our voyage. These will include Roman Orgies, Mediaeval Banquets, Venetian Masked Balls, Country House Murder Mysteries, and the ever-popular Dallas Episode Recreations.

Gymnasium and Sports Events

The *Armadillo*'s gym and swimming pools are equipped with a wide range of exercise machines and bathing environments. Gravity is fully configurable. Recreational swimming on the Aquatic Deck and in other liquid storage areas is strictly forbidden (see Safety section). Please use the official pools instead.

Also available on the gymnasium deck are a wide variety of recreational activities including Zero-G Squash Courts, 3D Pool Tables and a Glacier Wall.

While space on board precludes major live-action sporting events, passengers are welcome to try their ball skills in VR environments. Soccer enthusiasts can partake in simulated games against the mighty Manchester Buccaneers. The VR opponents are a classic side made up of veteran stars of the past including Bobby Charlton, George Best, David Beckham and Da Marcus Beasley Jr. If your taste runs to more full contact sport, why not take the BloodGrid field against the kings of the Galaxy Bowl, the Orkland Raiders.

A number of VR Extreme Sports activities are also available. These include hang gliding in Chasm City, the Fist of God Ski Run, Sandworn Riding on Arrakis, Dragon Riding on Pern and Captain Standlee's personal favourite, the Casey Jones Train Driver Simulation.

Educational Opportunities

Want to spend your time on board improving your skills? The *Armadillo*'s crew offers a wide range of educational opportunities.

Learn Jewelry Making from an expert. In addition to staging fashion shows, Mme Giulia de Cesare is a skilled jewelry maker. Passengers who have attended her classes on other White Star cruises have sometimes gone on to successful careers in the fashion industry.

Klingon Language and Culture. Never have to say jIyajbe' again. We will have you up to speed in Klingon by the time the *Armadillo* reaches their homeworld. You can also learn how to eat gagh gracefully and without giving offence.

Martial Arts. Worried about your safety on alien worlds? Learn proven self-defence techniques at Staff Captain Morgan's weekly workouts.

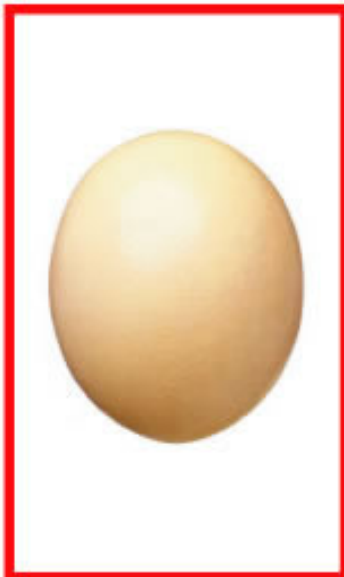
Uplift your pet. Have you or your children ever wished that you could talk to your dog, cat, ferret or ewok? Professor Daffyd Brynne can teach your pet to talk during the course of the voyage. Please make sure that you are treating your animal well before enrolling it in this course.

Debating Society

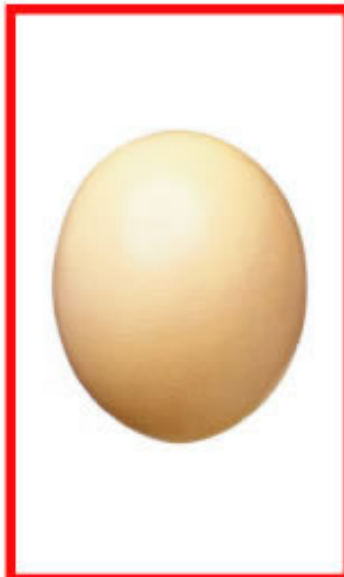
For those passengers of a more intellectual bent, the *Armadillo* has its own debating society. Weekly meetings allow passengers to pit their wits against each other over a range of controversial subjects. All debates are conducted using Yalow's Rules of Order (23rd Edition, Newly Revised). In honour of our science fiction writer guests, the first week's motion will be, "This House believes that fantasy trilogies should be no more than 33 volumes long."

Never underestimate the power of local knowledge

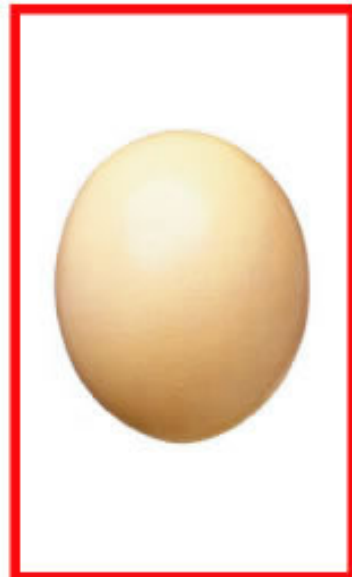
Earth



Pern



Oz



Ostrich

Dragon

Wizard

With branches in over 700 planetary systems,
Hainish & Shing Banking Corporation knows
that a little local knowledge goes a long way.

HSBC
Hainish & Shing
Banking Corporation



**The galaxy's
local bank**

Duty Free Shopping

White Star Federated Spacelines is pleased to make available a wide variety of high quality goods for sale on board the *Armadillo* at exceptional value prices.

Travel Goods

CONVERSE: The Complete Alien Communication Kit

A must for all first time travelers! Includes “The 25 Most Essential Words in Every Known Alien Tongue Dictionary” plus the following: Orifice probes of all sizes; “scratch and identify” chemical identification strips; body language interpretation goggles; portable subliminal sound translators; bodily fluids and saliva tables for easy comprehension of all alien secretions. And for an added 1,000 space dollars, a hand-held cosmic reader to identify alien sexual identity and the status of sexual arousal, inclusive of a special pheromone/hormone blocker for tourists not wanting to experience unwelcome advances on foreign planets...

Lemon Scented Towels

We regret that we are unable to supply any Lemon Scented Towels at this time. We have been assured that a new consignment will be delivered at the next planetfall.

Organ Adapters

Visiting an alien planet and not sure if your sexual organs will be compatible with the native species? Fear not, our full range of organ adapters will outfit you for romantic adventure on any of the many planets we will be visiting. You can even try them out in a private booth in the store.

Of course while artificial adaptors are fully functional and guaranteed, nothing quite beats the real thing. Don't forget to check out the full body makeovers available in the ship's beauty salon. Also check out the pheromone range in our perfumery.

Note: *while no organ adapters are required for visitors to Paros VII (always assuming that you have a skin of some sort) passengers who wish to make landfall on the planet MUST wear a full body condom at all times. Failure to do so may result in your being denied permission to re-board the Armadillo.*

Clothing

During her voyage, the *Armadillo* will call at a wide variety of planets with differing climates and cultures. Luggage allowances mean that no passenger, no matter how well prepared, will be able to pack for all eventualities. Fortunately the *Armadillo*'s shop is equipped with the latest top of the line model of clothing replicators designed by Interplanetary Custom Garments (ICG). This sophisticated nanotechnology-based system, known as the Chaos Costume Mk IV, is capable of taking existing garments of appropriate mass and converting them to any other designed in the machine's databanks. We recommend that passengers pack several worn and unwanted outfits that can be used for recycling.

We note with considerable pleasure that licensed versions of many of the outfits displayed in the Saturday night masquerade will be available from the onboard shop after departure from Glasgow. These high quality designer creations will not be available on any planet that the *Armadillo* visits. You can only buy them on board.

A wide range of clothing bearing the *Armadillo* logo, much of it available only on this, our maiden voyage, is available in the shop. Want to dress just like the crew? Or have a perfect souvenir of your trip? We have everything you need (including the popular tour t-shirt that lists all of the planets we are visiting). We are also particularly pleased to be able to offer official Spaceport Glasgow merchandise.

Cosmetics

Unhappy with your body shape or appearance? The *Armadillo* has been fitted with the very latest model in the Madonna™ range of full body makeover machines. Our catalogue includes an enormous variety of skin colours and textures, including Treen Green, Demonic Red, Fur, Scale and Chrome.

Favorite makeovers amongst female passengers include Leopard, Cutesy Bunny, Lubricia Lust Daemonette, Snake Goddess and the ever-popular Hello Kitty. Male passengers may prefer Werewolf, Troll, Nightcrawler (see illustration) and that staple of fancy dress parties everywhere, James Tiberius Kirk.

Passengers are warned that White Star will not be responsible for the safety of anyone opting for a full kzinti makeover if there are actual kzinti passengers on board.



Perfumes and Pheromones

The *Armadillo* boasts a wide range of attractive scents guaranteed to please the most sensitive of noses and covering a wide variety of tastes. Our perfumes are made from only the finest ingredients, such as orchids from Inclova and the glands of the Denebian slime devil. We also stock a range of classic scents from previous eras including Jean Paul Gaultier's Leather & Sweat, and Channel No. 5.

For those of you with an immediate practical requirement for body odor we recommend our pheromone range. If you are into cross-species romance, we can supply guaranteed chemical attractants for almost any alien race. Each scent comes with a handy manual detailing the common mating rituals, genders and sexual organs of the target species. Alternatively, if you are being pestered by an overly amorous fellow passenger, we can supply scents that are a guaranteed turn-off. He won't come near you again!

Note: *in cases of persistent sexual harassment please report the incidents to Staff Captain Morgan who will deal with the offender.*

Electronic Goods

Sonic Screwdriver

Ideal for reversing the polarity of the neutron flow, and countless other routine maintenance task. Guaranteed to fix almost anything, permanently. Warning: these devices are not permitted anywhere on the engineering decks.

Quark Charm Bracelet

Feeling Down when you want to be Up? Wear one of these and you'll never be Strange again.

Toys

Need a present to give to your great-great-grandchildren when you return from the voyage? Sure, it is hard to work out what sorts of toys kids will want hundreds of years in the future. But one thing kids will always want is a beautifully crafted model of the vessel in which you have traveled.

Our shop has models, not only of the *Armadillo* itself, but of all other vessels in the White Star fleet. Collect the set!

Female offspring just love our collection of soft toys featuring creatures from many different planets. A particular favorite is the baby ursine. (Mr. Baden wishes it to be known that he was not the model for this toy, though he does enjoy being petted by human children.)

For the older child, or perhaps someone you know who has never quite grown up, why not check out our custom-designed Lego model of the *Armadillo*. Comprised of over 23 million separate pieces, this fully animatronic kit is capable of just about everything the real *Armadillo* does except hyperspace flight. We advise you to buy early, because it might take you the entire voyage to put it together.

Legal Narcotics

Passengers are warned that while the following substances are all legal during inter-stellar flight, it may not be legal to import them to specific planetary systems. If in doubt, please check with one of our friendly customs advisors.

Chocolate

Although banned in almost every planet of the galaxy, this highly addictive substance is still legal on Earth where the natives claim to suffer no ill effects from its consumption. White Star is proud to have an exclusive relationship with a small, specialist chocolatier based on the island of Jersey near France. Passengers have been known to leave our vessels weighed down with 10-kilo bars of raw chocolate purchased at our on-board shops. Please don't be foolish: our staff will be happy to advise you about options for having your purchases shipped directly to your home.

Catnip

Kzinti passengers, are the other species on board annoying you? Feel like pouncing on them and ripping their throats out? Worried that you may inadvertently breach some stupid ship's protocol by eating the occupants of a neighboring cabin? Don't be concerned. If you feel your emotions getting the better of you, why not stock up on our fine supplies of premium grade catnip: guaranteed to keep you in a playful mood for the whole of the voyage.

Ginger

Yes, we know, perfectly harmless. Just don't take the stuff groundside on Rabotev, Halless, or anywhere in the Tau Ceti system.



Scottish Whisky

Yes, we do. The most famous alcoholic drink in the galaxy is stocked on board all White Star vessels. You won't find a better selection of single malts anywhere. You name it, we've got it. Novice Scotch drinkers may like to sign up for Staff Captain Morgan's whisky tasting classes which will take place once a week as soon as we are in flight.

Jynnan Tonnyx

The drink of choice amongst the more intelligent and refined species of the galaxy. Ideal with a cube of frozen H₂O (or CH₄ if you hail from Strepskittle 6) this comes in a delightful presentation box with a free lemon/melon slicer as appropriate.

The Old Janx Spirit

Made famous in the Orion mining song this has become ever more popular with our less refined passengers and those who wish to remain unconscious through out their journey. Comes in Litre, Gallon and Budget Bucket sizes.

Pan Galactic GargleBlaster

The drink made, and made famous by, Zaphod Beeblebrox is only available in a lead lined casket due to an earlier unfortunate incident involving the loss of the starliner Hyperion. A number of planets refuse entry to anyone carrying this drink and we recommend checking ahead before purchase.

Saurian Brandy

Distilled from the grapes of the Ru'ath Vineyards on the slopes of the Luur Mountains that line the equator of Saurius, Saurian Brandy is guaranteed to deliver a kick to the head of precisely the correct force to bring tears to the eyes, and tingles to the unmentionables.

Romulan Ale

Freshly smuggled across the Neutral Zone, this beverage is guaranteed to leave you feeling nicely neutral yourself.

Klingon Blood-wine

The Warrior's drink! The beverage of choice for those about to go into battle. Ideal for strengthening your resolve. So a Worrier's drink, too.

Altairian Glowater

Fresh from the seas of Altair 5, where the legendary Liver fish has evolved precisely for the purpose of extracting and refining the sea's high alcohol levels, Glowater is everything you've ever heard about that intoxicating world ... in a bottle!

Green

What is there to say about green? Why, that it's green of course! Drink it immediately.

Prune Juice

What can one say about this Earth delicacy that hasn't been said already? Nothing!

Meet the Crew



Commodore Sir Vincent Docherty – President, White Star Federated Spacelines: Former captain of *WSFS Intersection*, one of the early Worldcon Class liners.

Rt. Hon. Sir Colin Harris, KBE – Chief Executive, White Star Federated Spacelines

Captain Kevin Standlee – Distinguished service in the space cruising business, including captaincy of the *WSFS Quetzalcoatl*, and Staff Captain of the *WSFS Maple Leaf* under Captain Mansfield.

Staff Captain Cheryl Morgan – Ex-military, served under the notorious Commander Susan Ivanova. For several years captain of the tramp freighter, *RS Emerald City*. Scourge of space pirates and suspected of involvement in the massacre at Planet Trufen.

First Officer Tom Veal – White Star officers love to be in space. Mr. Veal is the retired captain of the venerable *Tasfic II*, one White Star's earlier cruisers. When a job vacancy opened up on the *Armadillo* he jumped at the chance to get back into action.

Chief Purser Alison Hopkins – Former crew of the *WSFS Intersection*

Cruise Directors Michael and Debby Moir – also former crew of the *WSFS Intersection*

Banqueting Manager Gay Ellen Dennett – purveyor of the finest foods in this or any other galaxy, party manager to the stars

Chief Engineer Alistair Cameron – please do not disturb his engines, they bite

Impresario Mme Giulia de Cesare – famous for staging theatrical spectacles throughout the galaxy

Mr. Ian Sorensen & Mr. Phil Raines – famous Scottish comedians, authors and playwrights

Mr. Kent Bloom – director of the naming and launch ceremonies, our liaison with the City of Glasgow

Mr. Kevin Roche – host of the famous game show, *Ready! Steady! Sew!*

Ship's Photographer Chaz Boston Baden – our ursine crew member will be happy to help you with your holiday snaps

Ship's Media Guy Lillian III & Rose-Marie Lillian – the editors of our in flight magazines will also keep you up to date with news as we cruise through the galaxy

Yeomen Gigi Gridley & Linda van der Pal – personal assistants to Captain Standlee

Plus various members of crew and civilian stars.

Spaceport Liaison Mr. Mark Meenan – Has kept White Star ships moving smoothly in and out of Spaceport Glasgow for over a decade.

Spaceport Representative Mr. Kenny Kane – Spaceport Glasgow officer with specific responsibility for the *WSFS Armadillo*.

Safety

White Star staff will take every step possible to ensure your safety and comfort while on board the *WSFS Armadillo*. However, passengers are requested to take note of the following safety announcements, which will enable us to make your stay on board more enjoyable.

General Announcements

1. Smoking is permitted only outside of the airlocks
2. Silicon-based life-forms are requested not to devour parts of the ship as this may result in health problems.
3. The use of energy weapons, nuclear explosives, nanotech plagues and bioweapons is strictly forbidden while on board.
4. Beings with restricted mobility (e.g. Daleks) are requested to contact our Electrical Eggs service for assistance with stairways.
5. White Star will not accept any responsibility for passengers who stray into parts of the ship that exhibit unnatural geometries.
6. Although passengers are encouraged to sample all of the many legitimate delights on offer in Glasgow during our stay on Earth, White Star will take no responsibility for the safety of anyone entering the Argyll Cantina. Spaceport authorities have informed us that this establishment is a known hangout of the infamous Plokta Cabal, some of the most dangerous space pirates in the galaxy.

Water and Other Fluids

Mr. Andrew Wilson, our fluids safety officer, would like to remind passengers that the **ONLY** water tank which they may use for zero-gravity scuba-diving is situated on the Gymnasium Deck. Passengers attracted to liquid environments should note the following:

1. The tanks on Deck 9 are used exclusively for the storage of potable fresh water. The introduction of any foreign matter — including skinny-dippers — requires the contents of the entire tank to be recycled. This process is not only time-consuming, but also expensive. Passengers who flout the regulations will be billed for the costs involved.
2. The tanks on Deck 10 are the recycling units, and unauthorized entry can be fatal — particularly during the boil wash and spin cycle. The relatives of the deceased will be billed for the disposal of any fatalities.
3. The tanks on Deck 11 store used water which is awaiting recycling. Once again, unauthorized entry can prove fatal, although not so immediately as in the above example. Anyone who has swum in these reservoirs should immediately report to sickbay for treatment. Passengers should be aware that their travel insurance will not cover the costs of any therapies they require.
4. The holding tanks on Aquatic Deck are **NOT** for general recreational purposes. They are the cabins of marine life forms, who are paying passengers themselves, with as much right to privacy as any other ticket holders on the ship. Unauthorized entry can prove fatal for both parties. Thus, not only are these entities entitled to treat uninvited guests as trespassers, they are well within their rights to deal with such intruders as they would any other invasive foreign body.

Finally, please note, spear fishing for mock turtle and all other mock forms of aquatic life in the recreational tank on the Gymnasium is only allowed during designated hunting times. The underwater use of energy weapons is, of course, expressly forbidden.

Health and Fitness

Ship's Doctor, Sean McMullen, provides some advice on how the body copes with space flight.

I would like to share some thoughts with you on landing. Yes, I know that landing generally doesn't often happen with a spacecraft like this – mostly we stay in orbit and use shuttles – but the process of arriving in-system is still often described, for historical reasons, as “landing”, and a ship in orbit a planetary system is generally described as “parked” rather than “in flight”. So we will be “landing” many times during our voyage.

Why is this a health issue? Consider how this spacecraft functions. It travels by ceasing to exist. Now this sounds alarming, but it is not at all dangerous. Not at first, anyway. We merely enter a universe where mass does not exist. Distance is not quite what we know it to be, either, so travel becomes easier. When you shove some mass into this universe, it is something of a novelty, but it causes no real trouble. The trouble starts when you return to our universe – land, as we call it, because this is a universe where there is land, here and there.

Return to our universe at the surface of a planet, and the air above will be jammed, atom-by-atom, into the ship - and us. This would cause a pretty impressive explosion, and shatter the ship and its contents, part of which is you. If the ship-shaped volume of air happens to include a passing bird, it would result in an even more impressive explosion. This will be of little interest to the passengers and bird, however, because death would set in after about ten milli-microseconds. Thus spaceports are in space, shuttle ports are on the ground, and you are shuttled up to spaceports because starships must rematerialise in vacuum and then descend to the surface if the spaceport is big enough. Correct? Sort of.

Starships can dematerialise anywhere, because they merely leave an absolute vacuum in the place they occupied – for a very short time, anyway. Rematerialising is harder. This is because space is not an absolute vacuum. In low planetary orbit it tends to contain all sorts of cruddy things like bits of old satellite, frozen urine from ships' toilets, the odd meteorite, and of course the (very attenuated) top of the atmosphere. Rematerialise in the same bit of space as even a fleck of paint, and the result will be along the lines of “Bang!” Not a very large bang, but try telling that to the guy in the next seat who is covered in bits of what used to be you.

So, we rematerialise in an orbit high enough to be clear of most of the detritus, but not so far away that the shuttle can't reach it. If a meteorite happens along when we rematerialise, well tough, we did our best. I'm told that our flashy new engine systems will prevent such eventualities but I'm a medical man and don't trust engineers, especially Scottish ones – probably because my father was a Scottish engineer. This orbit will still have a few molecules of air, but not enough to do substantial damage when jammed into the structure of the ship – and a few cells in your body. A few glasses of scotch at the in-flight bar will destroy the same number of brain cells in your head, for example, and thus cause the same sort of hangover effect. You will leave this flight with a hangover, and very few memories – including of reading this article. Thus in order not to notice the trauma of landing, please now proceed to the ship's bar and develop a proper hangover, well in advance of landing.



Immigration requirements

On our return to Glasgow, all passengers not holding Earth passports will be required to pass through Immigration. A day before landing the crew will pass out copies of Form G6-118. In order to help you fill this in correctly we reproduce a copy of the form here. If the meaning or intent of any question is unclear to you, please ask our immigration expert, Ms. Karen Traviss.

FORM G6-118

IMMIGRATION AND CUSTOMS CONTROL

VISA WAIVER FORM

Please complete this form, tear it out and hand it to the Immigration Desk Officer on disembarking. Failure to complete this form in advance may result in delays.

NAME

HOME ADDRESS (Please specify galaxy; if *not* in the Milky Way Galaxy, contact cabin staff for assistance.)

GENDER(S): M/F/ MULTI/ ASEXUAL REPRO/ VARIABLE

AGE (If your species does not perceive linear time, please indicate.)

SECTION 2

Have you ever been accused of or convicted of any of the following?

1. Genocide or planetary destruction Y/N
2. Improper use of a wormhole Y/N
3. Causing a breach in the time-space continuum without a licence Y/N
4. Committing an indecent act while a pan-dimensional being Y/N
5. Laying eggs and hatching offspring in the body of another galactic passport holder Y/N

If you have answered YES to any of the above, please give details:

CUSTOMS and PORT HEALTH DECLARATION

1. Are you importing methane cylinders, other than for personal use? Y/N
2. Are you importing any eggs or larvae? (Other than those traveling with you as accompanied family members.) Y/N
3. Are you or any members of your party likely to reproduce by budding or protoplasmic division during the duration of your stay? Y/N
4. What is the value of goods or arcane lost knowledge you will be bringing in as permanent exports? (Euros/ sterling equivalent)
5. Have you traveled to Paros VII within the last 12 months, or have you been in close physical contact with anyone who has? Y/N

If you have answered YES to any of the above, or the value of your imports totals more than £100,000 or equivalent, please complete FORM 16/GH/00091.

DECLARATION

I certify that the above detail is correct to the best of my knowledge. I understand that if I have deliberately withheld or falsified information I am liable to six months' imprisonment, or cryo-suspension where applicable.

Signed:

Date:

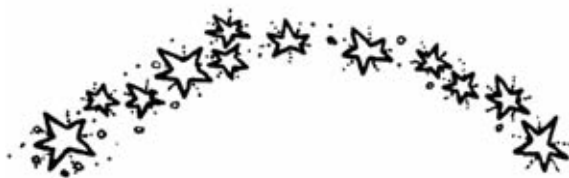
FOR OFFICIAL USE ONLY

Entry allowed:

Entry refused: undesirable alien

Entry refused: desirable alien (Paros VII only)

Entry deferred: secondary interview required



Never underestimate the power of local knowledge

Earth



Middle-Earth



Known Space



Married

Evil Artifact

The World

With branches in over 700 planetary systems,
Hainish & Shing Banking Corporation knows
that a little local knowledge goes a long way.

HSBC
Hainish & Shing
Banking Corporation



**The galaxy's
local bank**

How the ship works

Rennie-McGrory “Faster Than Light” Engines

The Gateway To The Stars

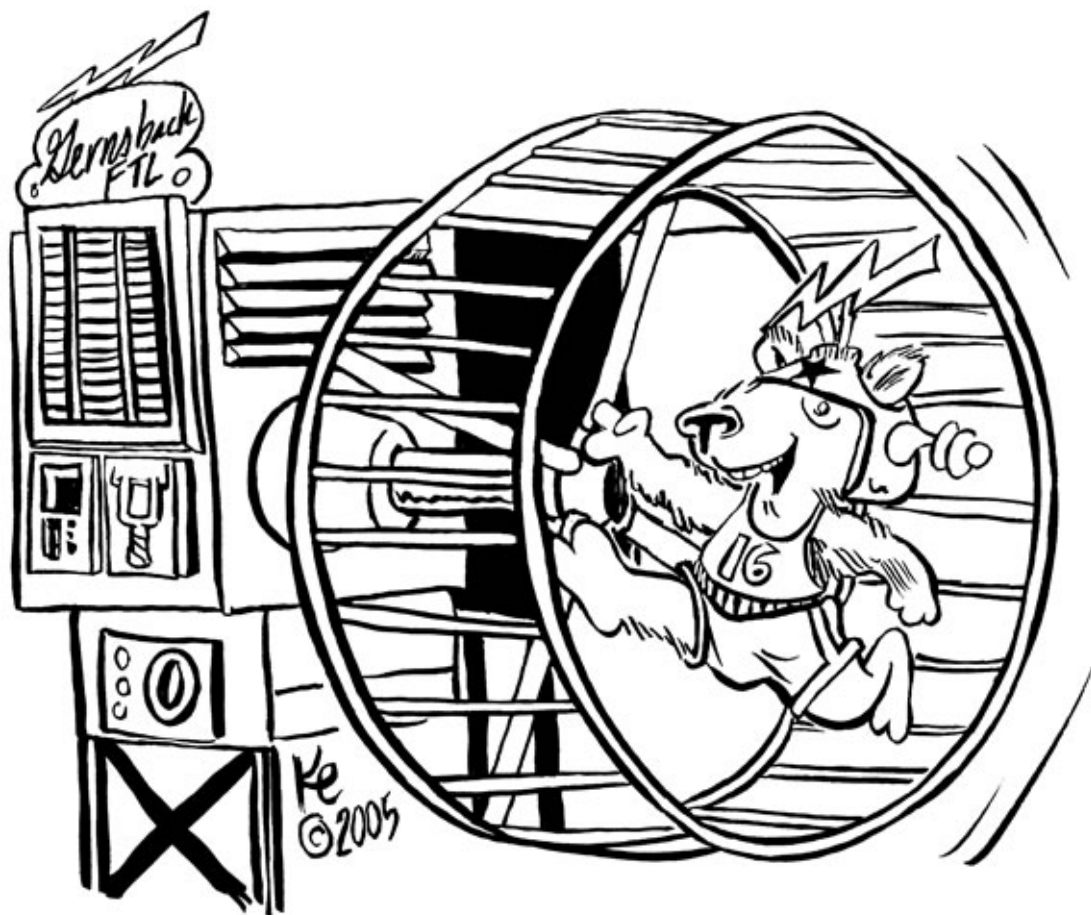
The *WSFS Armadillo* is proud to be the first ship in the White Star fleet to boast being powered by the new Rennie-McGrory Faster than Light Engines (commonly known as R-M “fittle” Engines). These engines are the latest in Faster Than Light propulsion and the *Armadillo* is the first civilian vessel to have them fitted. The R-M fittle engines are the first to allow in-system FTL travel due to the unique way they operate.

The theory behind FTL technology has been available for humans since the mid 24th century. In fact FTL communications had been developed earlier in 2017. By using a practical application of the Klein-Gordon equation, $((d/dt)^2 + (d/dx)^2 + m^2) \Phi = 0$, information can be attached to spin free tachyons. As most schoolchildren know, the solution to the equation allows the tachyon waves to propagate faster than light. The development of tachyon radio allowed for almost instantaneous communications across vast distances. This allowed mankind to expand into the solar system and maintain settlements on Mars and several orbiting colonies around the other planets. Unfortunately, colonists and settlers still had to travel using fuel propulsion systems, for example at best a round trip to Mars would take eighteen Terran months! Travel to the outer planets could take years and the logistics of such exploration and colonisation cost trillions of credits a year. By 2236 colonisation of the solar system was well under way. Work by Karl Werner and RCW Ettinger on cryonics allowed colonists and crew to be kept in suspended animation until their destination was reached. This not only reduced the psychological and physical trauma of extended space travel but also protected travelers from the effects of acceleration and decelerates involved in interplanetary travel. This was to be the standard form of transportation within the solar system for the next seven hundred years. The development of the Chrysler-Royce plasma drive did decrease the times taken to travel between the planets, reducing the journey time from an average of thirty-eight months to around eighteen months.

From the development of improved plasma drives which harnessed the power from the fusion generators allowed researchers to design experiments that would test the practicality of supra-luminous theories suggested as early as 2005 by Miguel Alcubierre. The first functioning engine was built at the *George Gamow Io Research Facility*. By distorting the tachyon flow around the engine, space could be “warped” by compressing it in front of an object and expanding it behind, to all intents and purpose the object would be travelling at supra-luminous velocity. However, technical problems meant that it was purely a laboratory based phenomena for another half century. The basic problem was that the computational power required to navigate the FTL test ships meant that although faster than light travel could be undertaken there was no guarantee where an FTL ship would end up. This was brought tragically into focus with the so called Iapetus incident in 2315, when one of the first experimental FTL ships *The Lumen* hit Saturn’s third moon upon deceleration from a test flight between the Research facility at Io and the research vessel *The Other Side of Nowhere*, which was in position between the orbits of Saturn and Uranus. The resulting explosion destroyed Iapetus, killing the 35-strong crew of the *Lumen*, and approximately one and a half million colonists on the moon. The resulting investigation halted development of any faster than light engines for ten years while government agencies argued about the cause of the incident. After the recommencement of research in 2325, the focus of the faster than light effort was changed. Engine design was put on hold while control mechanisms were developed. Computer designers and software engineers worked on the development of Artificial Sentient (AS) machines with the speed and computing power to calculate the navigational solutions required by FTL ships.

By 2403 AS computers were commonplace although early models like the HAL series did have some problems. Parallel to this work an effort was made to overcome some of the psychological

and physiological problems arising from the relativistic effects of traveling at speeds greater than light. The simple solution was to use the well-tested technique of cyronics, simply keeping the crew in suspended animation for the whole trip. This meant initially that computers would fly the ships to the edge of the solar system and then enter FTL mode without the input of any human crew. In 2398 the first interstellar human flight was undertaken. The crew of three; Commander Campbell, and Lieutenants Blish and Shaw, were kept in suspended animation for the two and a half year round trip from the termination shock research ship *Edge of Darkness* situated 127 AU's from the Sun, to Rigel Kentaurus 4.3 light years away. Traveling at an estimated 5c the *Time for the Stars* allowed mankind for the first time to step out of his own backyard and into the rest of the galaxy. Over the next two centuries, exploration was undertaken by only the richest and most powerful industrial conglomerates. FTL travel was expensive and dangerous. Three percent of faster than light ships were lost each solar year. Yet research and development continued, better AS technology slowly improved the safety margin along with route surveys and navigation aids. As exploration expanded colony ships were built and man expanded his realm to other stars.



Harry the Psychic Hamster powers the FTL drive

By the time of the First Contact with the Aîné in 2589, mankind had developed ships that had taken him to 34 different star systems. However, it was still a relatively slow process with the best ships only managing to accelerate to 30 or 40c. Travelling was still a painfully slow process. After the Aîné-Earth peace accord of 2572, the Terran colonies were subsumed into the Aîné Protectorate and new technological advances were made utilising alien technology. New FTL engines were built that were much faster than their predecessors. The new Ford FTL engines

were capable of 150 c, more than three times as fast as previous engines. However passengers and crew still travelled in suspended animation. That was soon to change with the development of the tachyon counter flow technique discovered by “→↗▽↑▷↓⇄→” of the Flammarion Academy in 2665. This neutralised the relativistic effects of travelling faster than light, so that crew and later passengers could be awake during flights. The immediate result of allowing ship crews to monitor for other ships in real time was a spate of corporate piracy on the shipping lanes. To overcome this The Protectorate authorised Earth’s military to protect the shipping lanes, which in turn lead to the development of faster and more manoeuvrable ships. Engines became more powerful in an attempt to create fast response ships.

By 2715, most of the corporations involved in piracy were destroyed or taken over in the acquisition wars. Tourism to the colonies was on the uptake and companies like *White Star* and *Proxima and Orion* had started to build FTL cruise ships. The first commercial cruise liner launched was the *Pe&O SL Phases of Gravity* followed swiftly by the *WSFS Kings of Infinite Space*. Unfortunately, this phase of civilian space travel did not last long, with a strong military Earth and the Human colonies decided that independence from the Ainé Protectorate was a fundamental right of the human race. The War of Independence lasted between 2745 and 2813, by the end of which the Terran Alliance had broken away from a weakened Protectorate and had set itself up as a trading power in the galaxy. During the war a major step was taken in FTL travel. It was still impossible to use FTL engines within the shock terminator of any star system as the amount of debris and other objects with a system made safe navigation impossible. An engineer at the Clyde based *Tsiolovsky-Yarrow* ship building yards, called Thorndike J Rennie speculated that switching the engines on and off in a controlled manner would allow ships to navigate at faster than light speeds within planetary systems. During the off time the AS would scan the area for debris, before making navigational corrections and switching the FTL engines back on for another small jump. A deep space research facility was constructed to develop the theory and Rennie and his colleagues worked on development of the first Rennie-FTL engines.

Rennie died in 2872 before the first working prototypes were in production. The main problem was the development of quantum switches allowing the AS controlling the Engines to manipulate the switching of the tachyon field on and off at a high rate. By 2875 the control mechanisms had been developed by the McGrory corporation under contract to the military. Improved tachyon counterflow technology, meant that even the fast switches between sub and supra-luminous velocities were no more than a mild discomfort for a minority of people.

The efficiency of the R-M FTL ships was illustrated during the *Newton’s Wake* Police action undertaken by Terran Alliance forces in 2887 against a terrorist held moon. The manoeuvrability and speed of intra planetary and even atmospheric flight using the engines lead to a swift and successful completion of the mission.

Since then R-M engines have been purely for military use, but White Star are proud to have the first set of civilian R-M engines fitted to our new flagship the *WSFS Armadillo*.

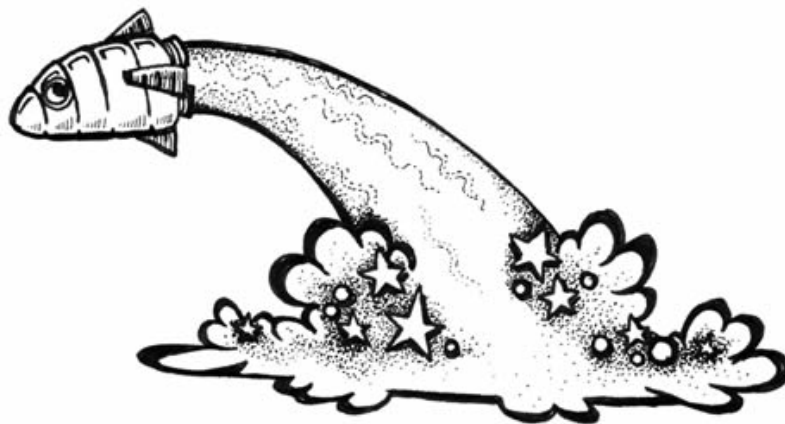
The *Armadillo* boasts two Scottish Leyland R-M Engines rated at a maximum velocity of 1000 c with a switch speed of 1q second. The control AS can navigate the ship in jumps between 200m and 10,000 light years. The theoretical jump length is smaller, but practically the ship cannot jump a distance that is less than its actual length. Passengers will be amazed as the *Armadillo* takes a leisurely two-week trip to all the major planets within the Terran system before leaving Pluto and Charon behind as they cruise to the stars!



Technical Specifications

No of Crew	75
Max no of Passengers	5000
Atmospheric Displacement	201600 cubic metres
Length	160 metres
Max Width	40 metres
Max Height	126 metres
Gravity	9.8 metres per second * per second unless otherwise specified
Atmosphere	78% Nitrogen, 21%Oxygen +trace * unless otherwise specified
Engines	Scottish Leyland Mark 4 “Clyde” Rennie-McGrory FTL Units
Power Source	4x “Windscale” Class 9 Fusion Generators Generating 34 exa joules per second
Maximum Velocity	1 kilo c
R-M switch speed	1 pico second
Min ‘jump’ distance	200 metres
Max ‘jump’ distance	10000 light years
Tachyon Distortion Index	133 peta Feynmans
Artificial Sentence	
Model	Computer-Tabulating- Recording Co. (C-T-R) Lovelace1852 ‘wetware’ integrated CPU with Atanasoff 3000 Operating system
Processing speed	1 Pebibyte per second

* Earth standard



Credits

Editor in Chief

Kevin Standlee

Commissioning Editor

Cheryl Morgan

Production Editors

Guy Lillian III & Rose-Marie Lillian

Cover art

Frank Wu

Internal Art

Kurt Erichsen, Sue Mason, Charlie Williams

Armadillo Logo Design

Feòrag NicBhrìde

Photography Credits

Armadillo: Scottish Exhibition & Conference Centre; Nightcrawler: Paul Holroyd

Technogeekery

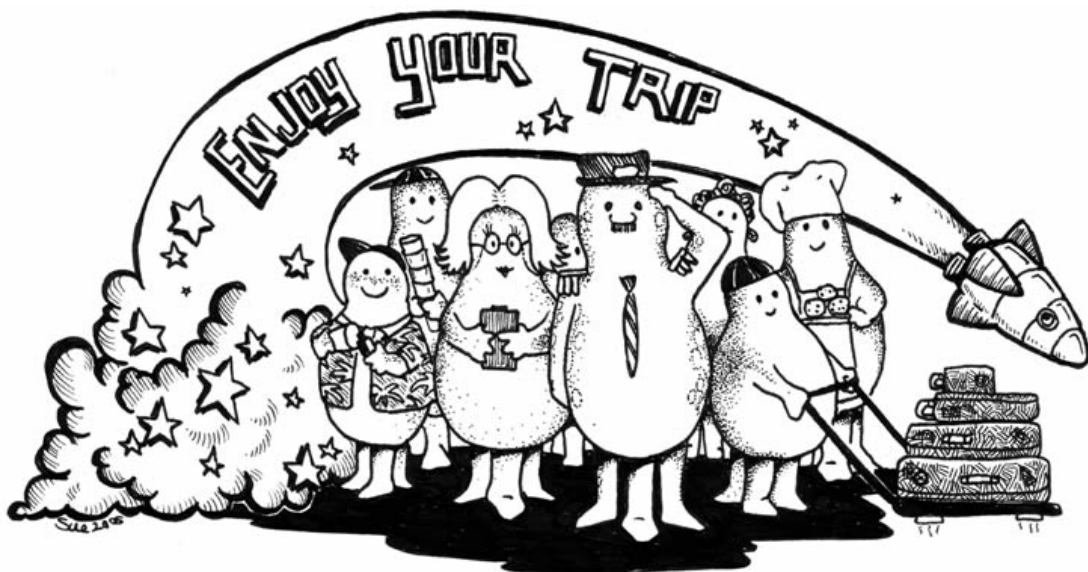
Michael Rennie

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Never underestimate the power of local knowledge

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Garden Animal

Qo'noS



Food

Arrakis



God

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