

FREELANCE TRAVELLER

The Electronic Fan-Supported Traveller[®] Magazine and Resource



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Freelance Traveller is published monthly in PDF form by the editor. The current issue is available from the Freelance Traveller web site, <http://www.freelancetraveller.com>.

From the Editor



First, an apology and correction: In our introductory issue, we credited the profile of Judith Shreipm in Up Close and Personal to Dan Roseberry. We're not sure how that error crept into the issue, but all of our notes except the actual working copy of the magazine (and, of course, the final production copies) show that it is, in fact, an error. We apologize to Alan Spik, the true author of the piece, and to all of our readers for misleading them. The PDFs, unfortunately, will continue to reflect this error, but the website itself will note the error and provide corrected info. Dan Roseberry does have an Up Close and Personal item in this issue—Dain Thrangar.

We're discovering one of the hazards—if you can call it that—of having an active, intelligent, well-read, and diverse Traveller community writing material to share: it becomes difficult to keep the size of an issue from expanding. This issue is larger again than last issue, and there were some other articles that we were looking at including. One must draw the line somewhere, however, and

we've managed to keep this issue down to 30 pages. The big article is Bill Cameron's article on Commerce Raiding and Convoys; while much of it is a historical overview, we couldn't cut it because it did such a good job of establishing context for his discussion of raiding and convoying in the Traveller context.

We're already starting to line up material for a 'theme issue'; what that theme turned out to be was a surprise to *us*; we think you'll be just as surprised—and hopefully, just as pleased. We're not going to say more now; we don't want to spoil the surprise, and we're not yet certain about when the theme issue will show up—we're still working on compiling material for it.

Thanks to you, the Traveller community, it looks very much like we'll be able to continue to publish monthly. Freelance Traveller as a magazine is very much an experiment, and we are really quite gratified at the reception it has received. We hope to have your continued assistance in the future so that we can continue to meet your expectations.

Mongoose Traveller Supplement 4 - Central Supply Catalogue

reviewed by Jeff Zeitlin

Traveller Supplement 4 - Central Supply Catalogue. Martin Dougherty and Bryan Steele

Mongoose Publishing [http://](http://www.mongoosepublishing.com)

www.mongoosepublishing.com

192pp, hardcover

UK£25.00/US\$39.95

Mongoose's fourth Supplement for their Traveller line covers a broad range of goods that can be purchased and which will have use in a Traveller campaign.

On the Shelf

This Supplement sports the usual yellow Traveller logo. The tag line for this book is "Credits to Burn".

Initial Impressions

The Central Supply Catalogue does a good job of living up to its name: the supplement is chock-full of stuff to buy for a campaign. There is a heavy bias toward weaponry and armor, but non-combat items are included as well.

On Closer Inspection

Central Supply Catalogue is more than a listing of Stuff - the volume starts off with twenty-five pages of background, providing a general description of broad characteristics of the specific tech levels, and what they might mean in a campaign. This section also contains rules for prototypes, lower-tech reverse engineering of higher-tech items, higher-tech improvement for lower-tech items, building custom items, and their quirks. This is followed by information on refereeing legality, and some special rules for situations that become possible with the use of equipment from this volume, but which is not adequately covered by the core rules.

The following section is eighty pages of personal and light support weapons, ranging from TL0 blunt objects to energy and neural weapons at TL16 and up. Basic shields, but not other protection, is included in this section as well. A summary of ammunition types and characteristics, and the same for accessories such as sights, magazines,

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Supplement 4: Central
Supply Catalogue

Credits to Burn

stocks, and so on, is also provided. A nice artistic touch is that "ads" from the "TravTech Arms Group" are included, with rendered images of weapons and some informative "ad copy".

The light weapons are followed by twenty-four pages of support/artillery weapons, from grenades through crew-served heavy weapons up to bomber-delivered and missile munitions. Again, information on ammunition is included.

Twenty-two pages of armor, from basic 'jack' all the way up through Battle Dress (and its associated accessories), follow.

The remaining thirty-six pages cover non-combat-related items, from cold-weather clothing to medical kits and supplies to rescue balls to vacc suits, to.... Most items are described in a short paragraph, no more than a half-dozen lines or so. There is a section on "augments", or prosthetic enhancements to the living body.

It should be noted that some of what is described here might not meet the image of a Traveller campaign that a referee or player of long experience may have; this, however, should not be considered a flaw, as Mongoose has determined that

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Critics' Corner

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Traveller is not just the 'traditional' setting, but a rules set that can - and does - support multiple settings. The authors specifically point out that whether a particular item described here is available in a campaign is strictly up to the referee - the mere presence in this volume does not mean that it must be available to players.

Fifth Imperium

Shannon Appelcline



This column is intended to be a referee's guide to Mongoose's Traveller, the fifth incarnation of the Traveller game system. Often it'll talk about the many printed resources out there and available to the gamemaster, supplementing my own reviews on those topics, but sometimes it'll offer more specific advice for GMing the game.

Editor's note: The initial Fifth Imperium column was published on the RPG.Net website in July 2009, and appeared in Freelance Traveller's initial issue in November 2009. The first part of this column originally appeared on the RPG.Net website in October 2009, and the second part in November 2009, and appear combined in this issue of Freelance Traveller.

Three months ago I kicked this column off with **Setting a Campaign: Eras of the Imperium**, which provided an overview of the 5000-year period which has been well-detailed within the canon of *Traveller* and which is available for you to center your own campaign within.

Most of those far-flung eras have their own, corresponding locales. The Interstellar Wars are set mainly within the Solomani Rim, Milieu 0 centers upon the Sylean stars, and the Gateway Era focuses on the Gateway Domain. However, once your approach the best-developed *Traveller* campaign settings—starting with the Golden Age that was the basis for both Classic Traveller and Mongoose Traveller—you'll find that there are a wide variety of different settings you can use, spanning the length and breadth of the Third Imperium ... and lands beyond.

Summary

Central Supply Catalogue is a supplement that should probably be considered a 'must-have'. The emphasis on combat items can be seen as a deficiency if the referee is running a campaign which does not feature combat heavily, but plenty of useful items may still be found. Perhaps Mongoose might be convinced to eventually come out with a second supplement with more emphasis on non-military goods.

An Overview of Space

Space in the *Traveller* universe is broadly divided in three different ways.

First, you have clusters, which are a relatively new geographical notation, mainly pushed by Martin Dougherty through the T20, Classic Traveller, and Mongoose Traveller books published by Avenger Enterprises. A cluster is a set of 10 or 20 stars that are bound together by politics and/or by geographical closeness.

Second, you have sectors, which are an official geographical designation within the Third Imperium. They encompass all of the stars within a grid that's 32×40 parsecs (and which includes sixteen 8×10 subsectors). Going back to Classic Traveller days, campaigns were typically defined by a sector.

Third, you have domains, which are also official Third Imperium geographical designations, and which include four sectors arranged in a square. They're ruled over by an Archduke. In the Mega-Traveller era, DGP started to write about the Domain of Deneb, an area which included the Spinward Marches, the Deneb Sector, the Trojan Reach (es) sector, and the Refit sector. Some more recent books have also detailed four-sector areas.

For the purposes of this article, I'm going to mainly talk about sectors, as that's overall the most frequent size for a campaign setting, though you'll see one domain and a number of well-detailed sectors that have less well-detailed sectors nearby.

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With that said, here's a look at the many sectors that you can set your campaigns in. In this article, I'm going to cover the first half of them, from Core (at the center of the Imperium) to the Hinterworlds (on one of its frontiers).

If you'd like detailed information on the stars of the sectors, I'll point you to The Traveller Map (<http://www.travellermap.com>), a superb resource that we only could have dreamed of back in the 1980s, when I was last an active Traveller fan.

Traveller Sectors: Core to the Hinterworlds

Core Sector. The Core Sector could offer an interesting basis for a very political campaign, as it's the center of the Imperium. As we'll see, it's also one of just a few campaign settings that lies toward the interior of the Imperium rather than sitting upon a frontier.

Unfortunately, the material detailing Core is pretty limited. All of the Milieu 0 material for Traveller 4 (aka Marc Miller's Traveller) is set in the area, but some of it's pretty bad (other, perhaps, then the main book, Milieu 0)--and it is 1000 years out of date if you want to to run a Mongoose-era campaign. However, you could supplement the T4 material with information from issues #9-10 of The Traveller's Digest and maybe also with some of the books and articles detailing Imperium nobles [nobles].

Generally, however, Core is one of the weaker settings that I'll be suggesting in these articles, and it's included mainly because of the information produced in the T4 days.

Diaspora Sector. During the first part of the MegaTraveller era, GDW flailed around a lot without establishing a base campaign setting. There was a half-hearted attempt to introduce a sector in Challenge magazine in 1989 (the Hinterworlds, which I'll return to at the end of this article), but it wasn't until 1992, five years after the release of MegaTraveller, that the game got a home base: the Diaspora sector.

Diaspora lies just coreward of the Solomani

Rim and just spinward of the Old Expanses, two other sectors that I'll be discussing in this article series. Thus, it lies in good relation to a few other Traveller game settings. It's also almost entirely the vision of one author, Charles E. Gannon, who not only wrote the primary sourcebook for the area, but also wrote many adventures and other articles in the setting, for both Challenge and Traveller Chronicle magazines.

However, other than that those plusses, I don't find Diaspora a very good locale for most eras of Traveller play. Firstly, that's because it's a pretty central sector of the Imperium--and unlike Core, it doesn't have a lot generally going on. That means it's not very interesting until the Rebellion starts breaking the Imperium apart, and that's probably out of scope for your Mongoose campaign. Second, almost all of the description of the sector comes from sourcebooks set in the Hard Times era, which is markedly different than how the sector would have been in the Golden Age, before the Rebellion caused it to shatter.

If you're nonetheless interested in the sector, you can find the best information in Astrogators' Guide to the Diaspora Sector and in Traveller Chronicle #2-6 (though Traveller Chronicle, which I'll be mentioning throughout this series, as it's generally a great source for setting material, is relatively hard and/or expensive to collect; I'm still missing a couple of issues from my own set).

I should also note that Diaspora (and Old Expanses, which I'll talk about later) was the main setting for Traveller: The New Era, though things have changed so much by then that the the data for that era is largely useless for any other play.

And now, having talking about two sectors that are pretty outside the norm for Traveller campaigns, I'm going to plunging into the frontiers more typical for the game ...

Far Frontiers Sector. In the days of yore there was an event called the Great Land Grant. This was when a very young GDW supported its early licensees by giving them sectors in the Official Traveller Universe to play with. We'll meet a number of these land grants over the course of this article se-

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ries. One of them was the Far Frontiers sector, which was the official sector of FASA.

The Far Frontiers Sector is one of the furthest flung of all of the official sectors of Traveller (only exceeded by Group One's Theta Borealis Sector). It lies two sectors spinward of The Spinward Marches, just past Foreven. Half of the sector is dominated by the Zhodani Consulate, while the other half contains a number of pocket empires, some of which support the Zhodani and some of which support the Third Imperium.

All of the FASA adventures were set in the Far Frontiers sector, which is probably the prime reason to run a game there; many of FASA's thinking-man Traveller adventures are considered classics. Unfortunately, there was no official description of the sector as a whole until well after FASA stopped publishing. If you decide to run in Far Frontiers, you'll probably need to pick up Ares Magazine Special Edition #2 (which had a short article on part of the sector) or else Traveller Chronicle #2-8, which expanded that article, then went well beyond it to produce a very complete look at the area.

If you wanted to expand the Far Frontiers sector into a full domain-sized area of space, you could supplement it with the Foreven Sector to trailing (which I'll talk about next) as well as the Vanguard Reaches Sector to rimward and the Beyond Sector to trailing-rimward. The latter two sectors were land grants to Paranoia Press, but I haven't given them full descriptions in this article series because they were the foundations of their own sector books and not much else (as Paranoia Press spent most of their time putting out rule books and gaming accessories, not settings or adventures).

Foreven Sector. The Foreven Sector lies just spinward of The Spinward Marches, so it should be a great place for adventure, especially since it's even more of a melting pot of the Zhodani and the Imperium than the Spinward Marches, with several client states of each of these mighty empires lying scattered between them (much like the Far Frontiers sector). Unfortunately, it's received almost no support to date, and is now officially a "blank

land", open for any GM's individual interpretation.

Personally, I hate blank lands, because as a GM you have the ability to replace anything that you want anyway. Naming Foreven a blank land just means that we'll never get an official look at an area that should be pretty important to many campaigns because of its proximity to the Marches. On the plus side, you can download an official outline of Foreven Sector online. In addition, some third-party *Traveller* publishers (namely, Hell Creek Sanitarium, Jon Brazer Enterprises, and K Studio) are just now starting to publish Foreven Sector supplements, under a special license from Far Futures.

At the moment Foreven is too sparse to run a campaign within, unless you do a lot of work on your own. However, I suspect that'll change within the next year.

Gateway Domain. The one area of the Traveller universe that's always been described as a domain is the Gateway Domain. It includes Crucis Margin Sector, Gateway Sector (aka Maranatha-Alkahest Sector), Glimmerdrift Reaches, and Ley Sector. The Gateway Domain is an interesting locale because it's a set of largely unaffiliated worlds and clusters that lies between the K'Kree's Two Thousand Worlds, the Hiver Federation, and the Third Imperium. This is the sort of true frontier that's been the heart of most of the Traveller campaign settings: just on the edge of the Imperium and interfacing with a couple of other societies.

Of the various sectors I've described in this article, the Gateway Domain is the only one that has had two largely incompatible descriptions.

The Gateway Domain was originally the home of the Judges Guild Traveller supplements (and thus the earliest land grant). Judges Guild published all four sectors as standalone books and put out numerous adventures set in them. For reasons that boggle me, GDW decided to throw out all of Judges Guild's work by revising all the star positions and names when they published the Atlas of the Imperium. Still, if you want a fully detailed domain supported by almost 20 modules, the materials describing the non-canon Gateway Domain are all still out there (though from what I hear, the ad-

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ventures aren't that great on average).

In more recent years a new, canon version of the Gateway Domain has been published in two very well-received books. The first was *MegaTraveller Journal #4*, which features "Lords of Thunder", an extensive campaign by the Keith brothers, set in the Rebellion time period. The second was *Gateway to Destiny*, which was set in the Gateway era, when the nearby wars between the Solomani and the Third Imperium have their own effects upon this region. There are several PDF adventures and sourcebooks which have followed up on this latter book, making it a very rich location for adventure.

Besides the four sectors that make up the Gateway Domain, proper, there are also two nearby sectors that have received some attention. One is *The Hinterworlds*, which lies just rimward, and which I'll talk about separately, because it was released as a standalone sector (and in a different time period). The other is the *Empty Quarter Sector*, which has been the default sector for the online fanzine, *Stellar Reaches*; it's been presented largely as an add-on to the Gateway Domain and lies just coreward.

Though I'll talk about the big two Traveller campaign settings—*The Solomani Rim* and the *Spinward Marches*—in my next article, the Gateway Domain certainly has the potential to be the third, thanks to the fact that it's a real nexus for stories and that it's been detailed in good books by some of the top authors for the game. Unfortunately Mongoose GMs will have to extrapolate from these sourcebooks to come up with an 1105 Golden Age Gateway setting.

Hinterworlds. We've already looked at *Diaspora*, the second sector for *MegaTraveller*. GDW's first half-hearted attempt to detail a sector for *MegaTraveller* occurred when they detailed the *Hinterworlds* sector in *Challenge #39*.

It's a sector with as much potential as the classic frontier sectors of Traveller, because it's situated between the Third Imperium, the (somewhat distant) *Two Thousand Worlds*, and the *Hiver Federations*. Thus, as with the other true frontiers,

you've got a few different alien races competing with the Imperium. Even better, the sector itself belongs to no one, but instead is the home for a bunch of pocket empires.

Unfortunately, the sector was never supported, except as a place to set *Challenge Magazine* articles. As such, it's probably largely forgotten and inaccessible to modern Traveller GMs.

Traveller Sectors: Old Expanses to the Trojan Reach

Old Expanses. This was another land grant, which is to say another sector given by GDW to one of their third-party licensees. The *Old Expanses* sector was the home base of the *High Passage Group*, a short-lived Traveller publisher whose main claim to fame was *High Passage* magazine.

The *Old Expanses* lies on the trailing border of the Third Imperium, adjoining the K'Kree's *Two Thousand Worlds*. It's thus another of Traveller's classic frontier sectors. Because the *Old Expanses* wasn't in print for very long, it's been largely overshadowed by other nearby realms like *Diaspora* and the *Gateway domain*—both of which I covered earlier. However, issues #2-5 of *High Passage* (which were published by FASA) are pretty easy to find, so the *Old Expanses* might be an interesting sector if you want just a little bit of definition for your campaign.

Old Expanses (along with the aforementioned *Diaspora*) was also the main setting for *Traveller: The New Era*, though things have changed so much by then that the data for that era is largely useless for any other play.

Reavers' Deep Sector. The most scattered of all the Traveller sectors was the one land granted to the Keith brothers. They used it for their own *Marischal Adventures* folios, but also for some of their material published by FASA, *Gamelords*, and (eventually) *Steve Jackson Games*.

Located between the Third Imperium, the *Solomani Sphere*, and the *Aslan Hierate*, *Reavers' Deep* is yet another frontier. As is often the case, there are a number of smaller states amidst those goliaths.

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There is a Reaver's Deep Sourcebook that was published in extremely limited quantities by Cargo-naut Press in the late 1990s, but it's largely impossible to find now. The only other background information on the area appeared in Gamelords' *A Pilot's Guide to the Drexilthar Subsector* and in *A Pilot's Guide to the Caledon Sector*, which appeared in Traveller Chronicle #5-7. The Caledon guide has also been collected into a PDF book that was made available on Far Future's Gamelord's CD. A variety of Reavers' Deep adventures were published back in the 1980s too, while in the 1990s a variety of Reavers' Deep articles were printed in Traveller Chronicle (though many of them advanced the sector to the New Era).

Because the information is so scattered, and because it's all pretty hard to get today, Reaver's Deep probably doesn't have much value as a setting for a modern GM, but is included here for the sake of completeness.

Solomani Rim. The Solomani Rim was the second great sector of Classic Traveller, followed Spinward Marches (which we'll get to momentarily). It offers a more understandable setting for the modern player than some of the other campaigns sectors, because it centered on Earth.

The Solomani Rim isn't a great melting pot of alien races like the frontier sectors (though the Aslan and the Hivers are both pretty near), but it does offer a great story: part of the sector lies within the independent Solomani Sphere, while the rest is occupied by the Imperium, who is trying to redress old problems centering around the last Ter-ran rebellion, about a hundred years earlier (in the Gateway Era).

There are many references on the Solomani Rim, the best of which are probably Rim of Fire for GURPS Traveller and the much older Solomani Alien Module for Classic Traveller. The Solomani's home sector is also the home of some of the later Classic Traveller adventures and double adventures.

The Solomani Rim can be used in many of the more far flung eras of the Imperium, not just the

Golden Age. It's the center of the Interstellar Wars era and there's also a setting for the New Era which was published in the later issues (#10-13) of Traveller Chronicle magazine.

Spica Sector. Spica Sector would have been a bold new extension of the Traveller universe, for the first time depicting a sector mostly within the Hiver Federation, and thus full of the Hivers and their many client races. Instead Spica, as of now, is the story of the sector that didn't happen.

There were some discussions of the Spica Sector on the Citizens of the Imperium forum, but those seem gone now. Then Spica Publishing was going to publish Spica Sector books with the OK of Marc Miller, but that got canceled due to the release of Mongoose Traveller. The latest news suggests that we might still see the sector detailed in a free PDF. If so, it'll prove a nicer resource, as it's right next to the Hinterlands (which itself is adjacent to the Gateway domain and the Empty Quarter).

The Spinward Marches. The Spinward Marches is by far the best described sector in all of Traveller. Located at the spin-coreward corner of the Imperium, it's a classic frontier state where exploration and adventure are very possible. It also acts as a nice nexus, centered between the Aslan, the Vargr, the Zhodani, and the Imperium itself, upping the possibility for intrigue and even warfare.

There are complete descriptions of the Spinward Marches for almost every version of Traveller. I'll point you toward my series of Spinward Marches reviews for more information on each of them:

[Editor's note: The list of publications that appears here are actually links on the original article at RPG.net. We strongly urge interested readers to see that article.]

- Traveller Supplement 3: The Spinward Marches (GDW, 1979)
- The Spinward Marches Campaign (GDW, 1985)
- The MegaTraveller Journal #1 (DGP, 1991)
- The MegaTraveller Journal #2 (DGP, 1991)
- The MegaTraveller Journal #3 (DGP, 1992)

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- The Regency Sourcebook: Keepers of the Flame (GDW, 1995)
- GURPS Traveller: Behind the Claw (GDW, 1998)
- 1248 Sourcebook 3: The Spinward States (Avenger/Comstar, 2008)
- The Spinward Marches (Mongoose, 2008)

Besides this plethora of overviews, there have also been many books published which describe individual subsectors, clusters, or worlds of the Marches. I'll detail these in a future article (though you can already find reviews of some of the cluster and world books in my ongoing Spinward Marches review series). In addition, most of the Classic Traveller adventures and double adventures are set in this area of space.

Finally, campaigns in the Spinward Marches can be extended by adventures in other adjacent sectors. Both the MegaTraveller Journal and the Regency Sourcebook included information on the full Domain of Deneb. In addition, other books and articles have detailed some of those sectors individually.

Besides Trojan Reach(es) and Foreven, which I've included in this article as standalone sectors, you should also look at the existing sources for Deneb Sector (which is still pretty sparse), Gvurrdon Sector (soon to be expanded by the Vargr sourcebook from Mongoose), and even the slightly more distant Corridor Sector (which got some good attention in the MegaTraveller era).

Theta Borealis Sector. The most far flung of all the Traveller campaign sectors is the Theta Borealis Sector, which was the land grant of Group One, another of the Traveller publishers of the 1980s. It's located five sectors spinward of the Third Imperium and two sectors rimward of the Zhodani Consulate, in a sector so far from the rest of the Traveller Universe that I'm not sure you could even call it part of Charted Space.

I suppose if you want a sector that doesn't have any of the traditional issues of the Third Imperium, you could go with this area, which was detailed through a number of world books and some ship-

based adventures, all of which were connected together in the sector booklet, Theta Borealis Sector—but I've never seen most of the Group One books in my years of collecting Traveller.

Trojan Reach(es) Sector. Though The Trojan Reach (called the Outtrim in some old sources) can be used as a supplement to the Spinward Marches, it's also strong enough to stand on its own. In some ways, it's like a sideways mirror of Foreven. There you have frontiers lying between the Imperium and the Zhodani and here you have frontiers lying between the Imperium and the Aslan. There are also some major independent states in the area, the most notable of which is the Florian League, probably my favorite minor human state. (Like the Darrians, a lot has been done to show off how the Florians can be human but still very unique.)

The reason that the Trojan Reach can be played on its own is that it's got two great resources. First, there's the recent Aslan book put out by Mongoose. But that itself was built on a Canadian fanzine of the 1980s called Third Imperium. Almost every issue of that fanzine centered on a new subsector of the Reach. Here's even better news: they're all available online, making the Trojan Reach super accessible.

Other Campaigns

The Trojan Reach is, as of this writing, the most recently published sector in the Traveller universe. By chance that also brings to an end my look at the sectors of the Traveller universe that could be used to (easily) run campaigns. But before I close out this article, I'd like to call your attention to one final campaign setting of note ...

The Grand Tour. One of the most unique campaign settings in roleplaying can be found in the pages of the 21 issues of The Travellers' Digest. That magazine centered around a 21-adventure "Grand Tour", where a group of friends are given a tour of the Imperium, from Behind the Claw to Sol and back. Along the way they hit some of the most important worlds of Charted Space, including Capitol and the Aslan Homeworld. It's a campaign truly worthy of the name "Traveller".

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You can find the first four adventures of the Grand Tour in The Early Adventures. From there you'd need to collect issues #5-21 of the magazine to get the rest; it's not impossible on the internet, but probably somewhat expensive. Of course, along the way, you'll also put together a collection of one of the best magazines ever written for Traveller.

I've wanted to run The Grand Tour for years, but its 4-character setup has kept it too small for me to run any time recently; maybe some day.

Having finished my look at this set of Traveller settings, let me offer one caveat: though I've constantly linked to topical tags in the RPGnet Game Index, they're not yet complete. Consider them starting points, but not comprehensive listings of all the publications for these settings.

[Editor's note: The links do appear in the original articles, Fifth Imperium #4 and Fifth Imperium #5, at RPG.Net. Interested readers are encouraged to follow up at that site.]

Conclusion

In this article I've covered several of the more detailed areas of the Traveller universe: the Core sector, the Diaspora sector, the Far Frontiers sector, the Foreven sector, the Gateway domain, and the

Hinterworlds sector. Of them, I find the Core and Diaspora sectors to be of somewhat limited use because of their non-frontier nature and/or their more limited details.

However, the Gateway Domain is surely one of the great campaign settings for Traveller, the Far Frontiers is a setting with some great adventures, and the Foreven and Hinterworlds sectors could supplement other settings or stand on their own.

I've also covered The Solomani Rim, the Spinward Marches, Trojan Reach, Old Expanses, Reavers' Deep, and Theta Borealis. The Solomani Rim and the Spinward Marches are the most obvious choices for a campaign, but there are other possibilities. The Trojan Reach offers a pretty good, well-supported alternative. Old Expanses, Reavers' Deep, and Theta Borealis would require a lot more hunting for old publications—and a lot more design work—but could form the foundation of a very unique Traveller game. And maybe someday Spica will receive some love.

That's it for my look at the sectors you could easily run Traveller campaigns within. I'll be back in a future issue with a final installment, looking at where in the Spinward Marches you might want to run a campaign, if you decide to choose the most obvious sector for your Traveller game (as I have).

Career Book 2

Reviewed by Benjamin Pew

Career Book 2. John Griffiths, Richard Hazelwood, and Nik Kraakenes

Spica Publishing, Ltd.: <http://www.spicapublishing.co.uk>

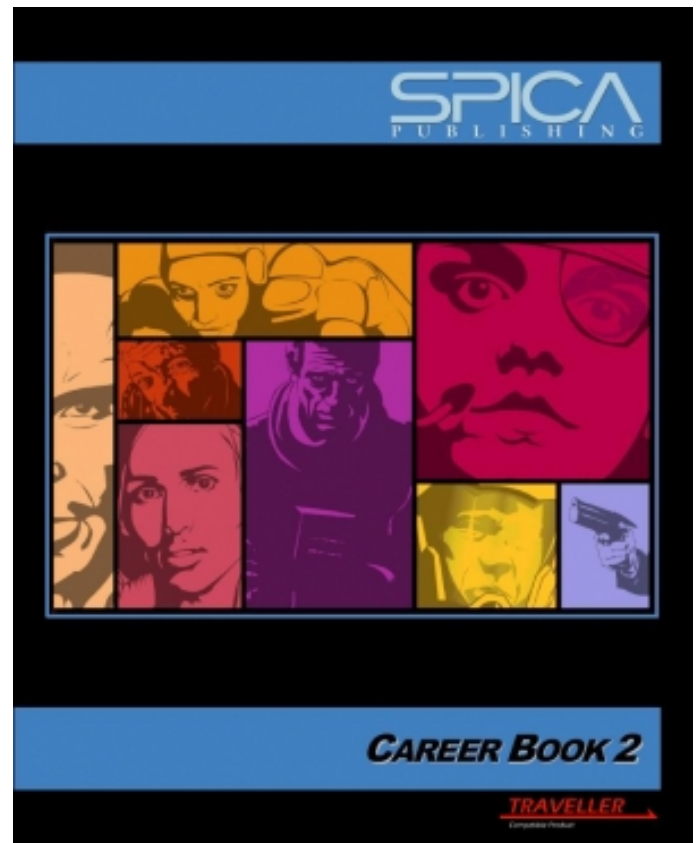
52pp

US\$20.00

Careers Book 2, published by Spica Publishing Limited, was written by John Griffiths, Nik Kraakenes and Richard Hazelwood. This book continues what started in *Careers Book One*; like the first, this book introduces a number of careers, and is clearly written and well laid out with good art. It is compatible with the new edition of *Traveller* by Mongoose Publishing.

CB2 also introduces two alternative background skills options—one based on homeworld and the other on education and intelligence—along with an alternative injury table and a university and graduate school. This is a good addition, as it allows the creation of better-educated characters, though just like in real life it doesn't necessarily do anything for that character's intelligence. The book has some additional mustering out benefits: for example, it has surveillance equipment, a sports flyer (a high-speed grav bike) and a new type of ship, the Explorer-class, which is a high-tech vessel which can be used as a step up from the standard Type S ship. My only complaint with the vessel and the sports flyer is that the vessel is TL 15 and the sports flyer is TL 14; I'd have felt they'd do well with TL 12-13 versions of each (but keep in mind that in my opinion, Mongoose *Traveller* equipment is often introduced at a much higher tech level than is really realistic).

The careers themselves—Athlete, Chancer, Companion, Cosmonaut, Enforcer, Insurgent, Media Practitioner, Mystic Warrior, Politician, Port Authority, Prisoner, Puppeteer, Secret Police and Slave—are, like in CB1, additions to or expansions of (in the case of the Athlete and Media Practitioner) the careers available in Mongoose *Traveller*. These careers each have three specialties; for example, the Secret Police has Spetznaatz, who are the jackbooted thugs, Analyzers and Plainclothes-



men—who are watching everything that goes on. These careers are used in the same way that the core careers and the careers presented in CB1, and do very well in expanding the options available for character creation. Indeed, the Prisoner career is a good addition because it opens up a description of what can happen to a fringe character, such as the Insurgent, the Chancer or the Enforcer, or to a military character who gets sent to a POW camp. “Slave” as a career choice may be offensive to some, as it does start the character out as the property of another, but it does allow for a very interesting campaign element to be introduced, even when used to generate NPCs; this is similar to the Companion career, which is essentially a prostitute (but depending on your views on the topic, it can be used to create characters like Inara from the show *Firefly*). But again, this can be used to add color and campaign twists to your game if you are willing to use them.

My primary questions involve the Insurgent, Mystic Warrior and the Puppeteer: an Insurgent, which for this book is the career for those who support a revolution but are not actually fighters,

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Critics' Corner

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sounds more like an armed rebel such as the Guerilla career in *Mongoose's Mercenary* book, while the Mystic Warrior, which is a career path for those who pursue enlightenment through martial art, has a description stating that it would be ideal for an alien culture which pursues such, and the Puppeteer sounds perfect for Hivers. These two should perhaps allow for usage by humans as well. Further, some of the careers, such as the Athlete and Slave,

deal with characters gaining addictions to various substances as mishaps; this mishap should be expanded upon to give rules for handling addictions in play.

In short, Spica Publishing Limited's Career Book 2 is a worthy addition to its burgeoning product line. I recommend buying it, as it provides several new careers and new equipment to the Traveler series, which can be used to expand your campaign.

In A Store Near You

LSP Data Goggles

First Availability: CT Tech Level 12

Weight @ First Available Tech: 0.3 Kg

Cost @ First Available Tech: 150 Cr

Appearance: These appear as a set of wrap around sunglasses. Available in silver, red, blue or gold reflective metallic finishes and black or yellow translucent colour. The arms are a bit bulkier than standard sunglasses, but only slightly. They come with an elastic headband to keep them in place and a clip to secure them to hat or collar (both optional). They will not float (but see **Floater** option, below). Includes small buttons on each arm that can be used as needed for manual control.

Basic Functions: May link to most standard portable comm units or computers to allow video display in a variable-transparency window on one or both eyes. The two 'screens' can contain separate data feeds although this is disorienting to new users. Allows eye-driven control, or manual control using menus and the small buttons on the arms. Not suited for text-input-intensive tasks, but well suited to launching applications and navigating menus.

Game Effect: Optional +1 on computer checks or comms checks with an appropriate portable unit, using this additional interface. Allows tasks like operating a comm or running a quick check on something while e.g., the character is driving, shooting, or otherwise unable to spare a hand. Note that inexperienced users can get themselves into trouble by trying to combine tasks like this—practice and good judgment on when to attempt this is required.

Battery: Internal rechargeable. Induction recharger provided (weight 0.2 kg), adaptable to most

standard stationary and vehicle sockets. Battery Life @ First Available Tech: 96 hours (standby), 8-12 hours (heavy use).

Available Options:

Flash Damping: +0kg, +Cr50. Instantly darkens to protect the eyes against bright flashes, such as solar flares, gun discharge flares, and dazzler weapons, and could even allow one to arc weld safely.

Floater: +25g, +Cr25. Thickens up the arms by adding an outer coating of highly buoyant material. Colour matched to the lenses.

Bone Induction Microphone & Speaker: +50g, +Cr50. Adds voice command and audio alert/output capability.

Targeting Enhancement: +0g, +Cr300. Extra software allows wireless interface with wireless smartgun systems to allow the user to be able to gain smartgun benefits without actually having to look directly through the weapon sights. Most useful for shooting around corners without exposing the shooter. Restricted and regulated software at law levels above 5.

Entertainment Link: +25g, +Cr100. The unit acts as a passive receiver for local radio, TV, and planetary network broadcasts. Allows the user to watch streaming video, keep up to date with news, etc. User will still need a separate interfaced comm unit for two way activity, but this at least lets the user monitor media.

Designer styling may add a sizable multiplier to cost (x1.5, x2, x5...depends how rich you are...).

Commerce Raiding and Convoys

By Bill Cameron

Commerce raiding is a big part of the general Traveller milieu and the OTU's specific history. The cessation of interstellar commerce helped lead to the Long Night. The loss of interstellar shipping assets during the Rebellion was a major factor of the Hard Times and is still felt into the Viral Era. Commerce raiding played a role in the Terran Confederation's victory in the Interstellar Wars. The Outworld Coalition fought the Third Frontier War primarily through raiding.

This emphasis naturally leads to some questions. In a broad sense, how does commerce raiding work? How can it be defended against? What are the effects raiding has on trade? Because I am in love with the sound of my own voice, I'll be addressing these questions after a Whipsnadian* history lesson. We'll examine the evolution of commerce raiding on Earth and then try and extend those lessons into Our Olde Game.

Commerce raiding predates navies. Always the favored tactic of 'weaker' navies, raiding, or the 'guerre de course', has never won a war in and of itself. It has substantially assisted nations in fighting wars however.

Commerce raiding is a strategic weapon, not a tactical or operational one. Raiding helps win battles through the diversion of assets and resources. If your opponent's cavalry is off chasing the raiders you've dispatched to his rear, that cavalry will not meet you on the battlefield. Every ASW escort you force your opponent to build is one less offensive warship he can build. Every AA gun and crew you force him to deploy is one less AT gun and crew your tanks will face. Every cruiser he sends out to patrol the sea lanes is one less cruiser in his battleline when your fleets meet.

Threatening the commerce of your opponent forces him to protect it and allows you to call the 'tune', i.e. make him react to your actions. The more your opponent depends on seaborne commerce, the more you can make him dance to your tune.

During the American Civil War, the CSA never seriously threatened the Union closure of southern

ports. Union forces maintaining patrols outside of southern ports did so with near impunity. CSS VIRGINIA did have one glorious afternoon in March of '62, but USS MONITOR arrived that evening. The Union forces patrolling the coast from Chesapeake Bay to the Mexican border were never substantially threatened again.

The CSA's navy did achieve one notable success however; it's raiders chased Union merchant shipping from the world's seas. Before 1861, the USA's merchant fleet rivaled that of Great Britain's in size and scope. BY 1865, that same merchant fleet had ceased to exist. The CSA raiders did not sink all those hulls. Nervous owners and insurance underwriters simply flagged their vessels in other nations, primarily Britain.

The USN, straining in the early portions of the war to commission enough vessels to patrol outside of southern ports, was forced to dispatch warships worldwide in near futile attempts to protect merchant shipping and catch CSA raiders. The CSA raiders did divert a portion of the Union war effort away from the continental battlefields. Obviously, that portion was nowhere near enough to make a difference, but resources were diverted nonetheless.

This historical example shows us one of the first effects of commerce raiding; if seaborne commerce is a significant portion of your war economy, you must defend against raiding. Time, treasure, equipment, and blood are expended to combat raiding, usually in far greater amounts than the amounts put into raiding in the first place. As a defender, you want to win against the raider every time and in every place. As a raider, you need only succeed once in a while, just often enough to keep the threat fresh in your opponent's mind.

Between 1865 and 1914, the changes in technology changed the nature of commerce raiding. Advances in both propulsion and communications worked against the raider.

Sailing ships had traversed the oceans along known routes, the winds they required forced them to do this. There were only a few 'landfall' points in any of the world's oceans. A raider could loiter at

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these points and easily find his prey. Steam propulsion didn't quite do away with these 'gathering' spots, but it did make them larger in area and thus harder to search.

Steam also fettered a raider to a fuel supply. During the American Civil War, CSA raiders could travel between landfalls under sail, only using their propulsion plants when actively raiding. Now that most merchant ships were also powered and faster, the raiders needed to use their engines all the time. Those engines required fuel and fuel became the Achille's heel of the raider.

Radio worked against the raiders too. Prior to wireless, a merchant could be taken or sunk and no news reach the world at large. Before, the operations of raiders in certain areas or along certain trade routes could only be determined by the failure of merchant vessels to arrive according to their, rather loose, schedules. More often than not, a raider's presence was announced by the raider itself, arriving in port for supplies or to land prisoners.

Now, radio allowed merchants to regularly check in with port authorities over the length of their journey. Radio also allowed merchants to announce when they were under attack. The veil of secrecy raiders had operated under for millennia no longer existed. Raiders could no longer loiter along a trade route or near a landfall and scoop up merchants at their leisure. They had to strike quickly, take or sink their targets, and then leave the area as soon as possible.

Despite these handicaps, Imperial Germany's surface commerce raiders did a superb job. They tied up Entente assets and resources in far greater proportion than their cost to the Kaiser. All were eventually hunted down and none really operated past the second half of 1917, but they made the Entente dance to Germany's tune in places far from the Western Front.

One raider, WOLF, steamed along the seas the Entente controlled for over a year, taking and sinking many vessels, tying up dozens of warships, and causing all sorts of trouble, before returning safely

home. Suspicion of her presence in the Indian Ocean actually delayed a troop convoy sailing from Australia to the Suez. British requests to the Japanese for help in hunting down WOLF gave Japan a stronger bargaining position at Versailles. She used that in turn to ask for and receive control of Germany's Pacific territories, islands the USMC and USN would find themselves fighting across less than 30 years later.

As spectacular as the achievements of Kaiser Bill's surface raiders were, they were not enough. The Central Powers were slowly starving under the distant blockade maintained by the Grand Fleet in Scapa Flow. The High Seas Fleet seemed unable, or unwilling, to break that blockade. Commerce raiding had made the Entente react, made them dance to Germany's tune, but surface raiders would be horribly vulnerable around the British Isles. Something had to be done, something - anything - had to be tried, and something was. Slowly, hesitantly, in fits and starts, Germany worked out the next stage in commerce raiding. The submarine, a weapon originally designed to be used tactically in the role of coastal defense, was transformed into a strategic weapon.

Raiding forces your opponent to divert assets and resources to defensive purposes and away from using them against you. He must protect areas that you may or may not attack. Your opponent's need to defend against your raiders everywhere means that you can force him to expend resources far out of proportion to the resources you devote to raiding. Thus, a numerically inferior force can use the threat posed by commerce raiding to divert forces away from themselves and lessen the odds they face.

Also, raiding mostly likely predates armies or navies. Bride stealing and organized looting are fixtures in human culture. Defending communities against raiders most certainly led to the creation of standing armed forces. While raiding on land was brutal from the start; the arson, rape, and pillage intendant with raiders are recorded for as far back as we have records, raiding at sea was almost gentlemanly in comparison. Part of that dichotomy can

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be laid at the romantic notion of us all being 'sailors first and combatants second' or 'fighting the sea before fighting each other.' CSA commerce raiders may have destroyed the US whaling fleet in the north Pacific, but all the crews survived.

For most of our history, commerce raiding at sea involved little bloodshed when compared to raiding on land. Even self-proclaimed pirates spared their captives more often than not, although this may have been mostly for propaganda purposes. A commerce raider hailed its prey, sometimes with a show of force (such as the 'shot across the bow'), and accepted the merchant's surrender. Either a prize crew was sent aboard and the captured vessel sailed back to a friendly port or the vessel was sunk, usually through burning. In nearly all cases, the merchant vessel's crew was either allowed to evacuate or were taken aboard the raider. All in all, commerce raiding at sea was a leisurely affair. Surrendering to a raider usually allowed you to eventually sail another day.

Technology changed all that and changed it for the worse.

Steam spread out a raider's targets, made them much faster, and increased the chances that patrolling defenders could intervene. Radio allowed a raider's victims to announce their capture to any who would listen, where before communication lag was a raider's greatest asset.

Improvements in weaponry adversely affected raiders too. Quite deadly weapons could be secreted aboard innocuous vessels, Q-ships, which would then 'surrender' to raiders, coax them closer, and suddenly open fire. Far from friendly ports and constrained by their own resources, any damage a raider received could prove fatal.

Technology also forced surface raiders further and further into the geographical margins, away from heavily traveled sea lanes and away from busy ports. Those areas are defended and patrolled, something a raider cannot contend with. In the American Civil War, CSA raiders operated within sight of the US coastline. Other commerce raiders had captured ships right outside enemy ports. How-

ever, by 1914 only a madman would have tried to operate a surface raider in the Irish Sea as J.P. Jones had done in the American Revolution.

By the time of the Great War, technology had made surface raiders only a shadow of the threat they once had been. They could still tie up assets, force the enemy to divert men and materials into patrols and sweeps. However, unlike the CSA raider had done five decades earlier, they could no longer chase a nation's entire merchant marine from the seas. Yet, commerce raiding as a method of strategic warfare had never been more attractive.

Thanks to industrialization, no nation could hope to maintain its economy, let alone fight a war, with only the resources within its borders. Every nation depended on commerce to sustain its war effort, all carried to a greater or lesser degree by seaborne vessels.

The Central Powers had risked a nitrate shortage until a process to fix nitrogen from the atmosphere was developed, literally at the last moment. Britain could not feed both her armies and populace without food from overseas and, to a lesser extent, none of the other combatants could feed themselves either. France, thanks to the stupidity of Plan 17, saw most of her deposits of iron ore occupied by Germany in 1914. She needed ore from overseas to make up the difference.

Geography allowed the Entente to put a distant blockade of Germany's ports into effect from the earliest days of the war. Every loophole Germany tried; shipments through Holland, Scandinavia, the Balkans, Italy before she joined the Entente, every single one was found and stopped. The Kaiser's armies were victorious in the East, occupied nearly all of Belgium and important pieces of France, yet Imperial Germany was still losing the war on a strategic level. The Entente need only hold fast and wait for the blockade to work. German needed a way to strike at her opponents strategically, to put the same pressures on the Entente that she was feeling.

Commerce raiding would be the method and the submarine, out of desperation, would be the tool.

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Prior to the war, all the powers had built submarines with the same 'noble' motives in mind. They would defend coastlines and the littoral. They would attack warships and invasion fleets. They would carry on the war at sea in much the same manner it had always been carried on, gentlemanly and 'we are all sailors first'. Those ideals completely ignored the realities of the submarine however.

Submarines were slow, painfully slow when submerged. They were delicate. Even minor damage could sink one or prevent one from diving. Compared to other weapons, their torpedoes were slow and had a very short range. Guns routinely threw shells at supersonic speeds over 10 miles, torpedoes were lucky to travel a third of that at a speed measured in tens of knots.

Given their nature, submarines were trappers, not chasers. They could not detect an opposing vessel at any great distance, run it down, and sink it. They had to lay in wait, hoping the target would come to them. Submarines had 'glass jaws' too. They couldn't slug it out with their opponents. They had to strike from ambush, hoping to disable the enemy before the enemy even knew they were there.

Despite the 'warship sinking only' intentions of all the powers building submarines, those vessels were made to order for commerce raiding. Indeed, given their inherent weaknesses, merchant shipping was the only target submarines could attack with any hope for regular success.

British propaganda aside, Imperial Germany didn't issue a blanket 'sink on sight' order to their submarine force from Day One of the war. They announced successive blockade zones, pledged only Entente flagged vessels would be sunk, even tried to follow the 'cruiser rule' of warning vessels prior to sinking them. All these hesitant steps proved themselves to be useless and, in some cases, suicidal for the submarines involved. Surfacing and announcing your intention to attack only allowed the fragile submarine to be counterattacked. Giving merchant crews time to evacuate gave opposing warships more time to intercept you. Attempting to determine the nationality of a target before firing

simply let the target steam away from you.

By fits and starts and seemingly without any coherent plan, Imperial Germany invented 'sink on sight' submarine warfare and nearly brought Britain to her knees. Driven to desperation, Britain was ready to try anything and everything. The wild and weird ideas thrown at the submarine 'menace' are beyond the scope of this essay, but none worked well enough to stop Germany's submarine commerce raiding campaign. The RN was eventually all but forced to resurrect the idea of convoying. That did the trick. Convoying worked, but not for the reasons most people think it worked.

To say ASW was primitive during the Great War is to be kind. ASDIC was little better than putting your head underwater and listening. Depth charges had as good a chance of sinking the vessel dropping them as they did of sinking their target. Aircraft had very limited loiter times and could not carry weapons that were large enough to do much good. Most ASW sweeps consisted of every man not on watch standing topside and looking for periscopes.

Convoys worked because they limited a submarine's chances of stumbling across a merchantman and not because the convoy's escorts blasted any and all submarines that got near. Before convoying was instituted, merchants steamed in and out of port constantly either alone or in small groups. This ever present flow of targets enabled the slow submarine to sooner or later find itself in a good firing position. It didn't matter if one merchantman steamed past on a poor attack bearing, another would soon be along. By controlling the number of arrivals and departures, convoys limited the number of chances submarines had to attack.

Convoys also made it possible for foreign flagged vessels to feel safe steaming into the war zone again. The submarines hadn't done their work only by sinking vessels, they'd also done it by preventing vessels from sailing in the first place. For every ship the submarines sank, many others simply avoided sailing to Britain and France at all. It doesn't matter whether a vessel is sunk or its owners won't allow it to travel in a war zone, in neither case can that vessel be used carry the cargos you

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need. By assuaging the fears of the neutral vessels, convoys increased the amount of shipping steaming for the Entente.

Convoys were a double-edged sword however. By limiting the number of departures, you limit the amount of tonnage delivered. This wouldn't be too much of a problem in the First World War, it would become a problem in the Second though.

The return of convoying allowed the Entente to survive Germany's most serious attempt at a strategic offensive. Attacks on merchant shipping was nothing new, commerce raiding has been with us a long time, but using submarines for those attacks was new. The Entente survived Germany's attempt to blockade them, but the Central Powers did not survive the blockade the Entente had maintained since 1914. Although the cease fire was signed on 11 November 1918, it should not be forgotten that the Entente blockade of Germany was kept in place until late 1919 when the Central Powers had signed the various treaties ending the war.

One of the participants at Versailles remarked that the treaty wasn't a peace treaty but merely a twenty year cease fire. An oddly and sadly prophetic turn of phrase.

Commerce raiding in the next war would prove to be much more effective, nearly winning a war for one combatant and not the combatant that you think!

The main points I attempted to bring across in the previous paragraphs were:

- 1 - Defense against commerce raiding diverts more assets and resources than the raiding itself requires.

- 2 - Forcing an opponent to divert those assets and resources can help balance the force ratio you face.

- 3 - If your opponent requires commerce for basic economic reasons, commerce raiding can cripple his ability to support a war.

- 4 - Commerce raiding works by more than just destroying vessels. Convoys naturally limit the tonnage moved and the threat of destruction prevents some vessels from travelling altogether.

The arrival of the submarine in WW1 began a new phase in commerce raiding. The nature of submarines, the technologies that made them possible, forced them to be used in only certain ways. Unlike in previous centuries, merchant vessels were now sunk in ambush, without warning. Their crews were no longer allowed time to evacuate their ships and could no longer be brought aboard the raider that had sunk them. Commerce raiding at sea now became as bloody as it had always been on land.

The crude nature of WW1 submarines was matched by the crude nature of the weapons used against them. Convoying worked in WW1 because it lowered the chances that a submarine could intercept a merchant vessel and not because the convoy's escorts were able to drive the submarines off.

During the twenty year cease fire period between the two World Wars, several powers looked to the Kaiser's U-boat arm and learned very different lessons. The US and Japan built large submarines with the vast Pacific in mind. Japan, despite all indications that submarines could rarely inflict significant losses on naval assets, stressed anti-warship operations. The US, perhaps disingenuously, stated their boats were for sinking warships too. The US fleet boats would become nearly perfect commerce raiders however.

Britain built submarines for both commerce raiding and ASW roles. So did the Italians. Germany, despite being forbidden submarines by Versailles, built and operated boats in Holland and Finland in much the same way their army and air force tested designs and tried out doctrines in the Soviet Union. (All of these secret building and test programs in foreign countries began BEFORE the Nazis came to power.)

Even more oddly and despite the 'lessons' from the Kaiser's War, Germany entered WW2 with fewer submarines on hand than it had when WW1 started. Those submarines began commerce raiding operations almost immediately however. While the real assault on Britain's seaborne commerce had to await the fall of France and the construction of more submarines, it became apparent that the march of technology and advances in doctrine had

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improved the submarine far more than it had improved her opponents.

German submarines were now faster, both on the surface and beneath the waves. Their torpedoes, while still buggy, were far better than those the Kaiser's U-boats had used. More importantly, they used very different tactics; attacking at night on the surface like PT boats and only submerging to escape. During the time it took the Allies to develop and deploy the material, technologies, and doctrines required to defeat them, the U-boats racked up spectacular tonnage totals. Yet they never came close to severing the Atlantic lifeline.

Let me repeat that, despite both Nazi and Allied propaganda, the U-boat never, ever came CLOSE to shutting the Atlantic to Allied shipping. Between 1939 and 1945, 99.4% of merchant vessels crossing the North Atlantic made port safely. That safe transit rate stayed pretty much steady, varying by at most a percentage point or two throughout the entire course of the war. Even during the best years the U-boats had, roughly between mid 1940 and mid 1943, well over 95% of merchant shipping in the North Atlantic reached port safely. So what was all the shouting about?

First, the huge number of safe transits are due to efforts the Allies put into countering Germany's commerce raiding efforts. Thanks to WW1, the Allies took the submarine threat seriously from the very beginning and devoted considerable effort towards countering that threat. The Allies eventually had far more many vessels engaged in purely ASW efforts than entire number of U-boats the Kriegsmarine launched. The number of Allied aircraft tasked with ASW and convoy protection nearly equaled that of the entire Luftwaffe at it's height.

Second, even an unopposed convoy system means there will be a shortfall in the necessary shipping tonnage. By restricting the sailing of vessels until such time as they can be formed into convoys and by restricting the sailing of those convoys until you feel they can be properly escorted, you limit the flexibility of your merchant marine. When viewed exclusively from a scheduling standpoint,

convoys are extremely inefficient.

Third, a war economy requires much more shipping than a peacetime economy. Odd and additional resources are needed for essential industries, armies and fleets must be supplied over great distances, and the attrition of material means that everything needs to be built many times over. Simply going to war puts a merchant marine under strain and locking vessels into a convoy system limits their scheduling efficiency. Both of those factors can place a merchant marine and a nation's seaborne supply routes in a very precarious position, a position which commerce raiding can exploit.

That is what the Kriegsmarine's U-boat arm exploited. The everyday requirements of war had already stretched Allied shipping too thin. By threatening to upset that delicate logistical equation, the U-boats forced the Allies to expend far more effort, in the form of men and materials, than the price Germany paid for deploying the U-boats in the first place. The scales were so finely balanced that, each time the Germans placed the tiniest of pressures on them, the Allies were forced to respond with a far greater pressure of their own.

As good a strategic weapon as the U-boats were however, Germany did make two major mistakes. They utterly failed to keep up with the Allies in the technology race and they failed to concentrate the U-boat against weak links in the Allied supply chain.

In this manner, the U-boat campaign resembled the Allied strategic bombing campaign. Neither campaign every seriously threatened the opposing side, but both campaigns had to be countered at a great cost.

In the Pacific theater of the same war, two very different submarine campaigns took place; one an abysmal failure and one spectacular success.

The IJN had large, well-designed submarines, some with their own scout planes, the best torpedoes in the world, motivated personnel, and the absolute worst submarine doctrine of any of the combatants. Completely ignoring the past inability of submarines to regularly and successfully engage

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naval targets, the IJN submarine arm was fixated on attacking Allied warships.

Because of this, submarines contributed very little to Japan's war efforts. With very few exceptions, the Allies were able to ignore IJN submarines from a commerce raiding standpoint. Merchant shipping routinely sailed between the US West Coast, Hawaii, and ports even further west unattended. IJN submarines made cruises to the busy US West Coast throughout the war, only to monotonously record 'no contacts'(!!!) in their patrol logs.

Once again as shown in the First World War, attempts to use submarines as anything but commerce raiders achieved, at best, spotty results. Although deployed in picket lines, the IJN boats failed to spot the US carriers deploying to Midway, failed to spot or prevent any of the innumerable US landings across the Pacific, and failed to substantially interfere with any US naval operations. (To be fair, the US boats didn't do too much better in those roles.)

Shackled by faulty operational doctrine, Japanese submarines spent most of the war on fruitless patrols, acting as cargo vessels for isolated garrisons, or mother ships for various suicide missions. They contributed very little to the Japanese war effort and thus allowed the US to contain them with a relatively small effort. The US ASW measures in the Pacific actually grew lax as the war went on, as illustrated by the loss of INDIANAPOLIS.

As Japan's opponents, the US at the beginning of the war had some of the world's best submarines, definitely the world's worst torpedoes, and a confused operational doctrine. Problems with torpedoes and doctrine lasted until early 1943, after that the US submarine force was unleashed on Japanese merchant traffic with an unholy vengeance.

The US submarines shared same good fortune their German counterparts did. Japan, like Britain, required seaborne imports to keep her war economy functioning and that commerce could be targeted in a strategic sense. But the US also enjoyed

many benefits the Germans never dreamed of.

German U-boats had to transit choke points the North Sea, Bay of Biscay, Sea of Norway, etc., in order to reach their operational areas. US boats had the vastness of entire western Pacific to patrol. Chokepoints in the Pacific merely concentrated merchant vessels as targets. Chokepoints in the Atlantic concentrated U-boats as targets. US boats were built and operated from relative safety while German yards and submarine pens were the subject of air raids.

The US also eventually enjoyed a better operational doctrine than their German counterparts. For the Germans, a ship sunk was a ship sunk. Type, location, cargo aboard, none of that mattered. To the Germans, a tramp loaded with bananas off Sierra Leone was just as good as a tanker loaded with avgas off Liverpool. The US, thanks in part to code breaks, went after the critical cargoes Japan needed, primarily oil, rubber, and tin.

US submarines and their equipment were the recipients of constant technological improvement. Starting in 1943, US boats deployed with their own radar sets, something the U-boats never had despite Germany's lead in radar development in the 30s. US boats used HF-DF another technology the U-boats never enjoyed. Advances in cryptography on the Allied side allowed US boats to be steered towards targets.

Technology greatly assisted the enemies of submarines too. In WW1, aircraft accounted for ONE confirmed submarine kill. In WW2 in the Atlantic alone, aircraft sank slightly over 200 U-boats and assisted in the destruction of dozens more. Advances in aircraft, weapons, radar, HF-DF, and cryptography helped you hunt down submarines, but only if you made the effort to develop them in the first place. Germany's commerce raiders and Japan's commerce defenders fell further and further in the technology race while the Allied raiders and defenders opposing them set the pace.

Most importantly, Germany's opponents recognized and dealt with the threat poised by commerce raiding. They devoted men and materials to the problem, allocating resources not just to fight the

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undersea raiders but to destroy them. The Japanese never did this, despite being the combatant most reliant on seaborne imports.

Britain began convoying merchant traffic when the war began, not all merchant traffic, but a healthy percentage of it. Japan, while convoying military formations, didn't truly begin merchant convoys until 1944. Britain and the US built convoy escorts by the hundreds and had aircraft tasked to the ASW mission numbering in the thousands. Japan did not, indeed could not, make the same effort.

The Western Allies also devoted resources to ensuring that amount of shipping available to them during the war grew. Again Japan could not do this and Japan never even planned to do this. Between 1942 and 1945, Imperial Japan launched approximately 3.3 million tons of merchant shipping. In 1943 ALONE, the US launched 11.5 million tons of merchant shipping. Despite the U-boats' record tonnage numbers, the Allies had more merchant ships at the end of 1942 than they had at the beginning of 1942, and the same can be said for the rest of the war. Japan, on the other hand, had fewer merchant ships at the end of '43 than at the beginning and those numbers continued to drop despite the 3.3 million tons of shipping she launched.

During the war, Japan did not defend against commerce raiding allowing US forces to savage her merchant marine and deny her critical resources. During the war, Japan did not engage in commerce raiding, allowing the US to direct critical resources into other efforts. By ignoring the strategic warfare benefits of commerce raiding, Japan made far easier her eventual defeat.

By 1945, the biggest problem US submarines faced on patrol was a dearth of targets. The US boats reverted to the methods their 19th century commerce raiding counterparts would have recognized; stop, search, seizure, and sinking of suspect vessels at sea. What was left of Japan's seaborne commerce was now carried on coastal sampans. Not wanting to waste torpedoes on such small targets, US submarines would approach those tiny

vessels on the surface, order the crew to abandon ship, and sink their target with deck guns, satchel charges, and hand grenades.

When we compare and contrast these three submarine campaigns, we see that, from a strategic warfare standpoint, the US and German campaigns were successful and the Japanese campaign was a dismal failure.

The German campaign was successful because it diverted their opponents' resources. The Western Allies were forced to expend many more resources on a commerce raiding defense than the Germans spent on mounting a commerce raiding campaign. The Germans did not 'cut' any supply lines, they even came close to 'cutting' any supply lines, but they did force their enemies to expend supplies in areas where they did not wish to.

The US campaign was successful because it denied their opponent supplies. In this the US commerce raiding campaign was atypical. Only in very rare circumstances do commerce raiding campaigns 'cut' the lines of commerce. In the US case, it was a mixture of their technological superiority and their opponent's blind spots that allowed this unprecedented success.

The Japanese campaign was a failure because it never occurred at all! The IJN should have instituted a submarine commerce raiding campaign but did not. Also, the Japanese should have defended themselves against such a campaign but, again, did not. With these two failures, the Japanese were denied resources they desperately needed and could not force their enemy to expend his own resources on defense. That acted as a double "whammy", the Japanese saw their own resources wane and allowed their opponent's to wax for the very same reason.

So what can we learn from historical commerce raiding that can be applied to the fictional commerce raiding in the Traveller Universe? I think history provides us with the following lessons:

1 - Commerce raiding is both a useful and important aspect of strategic warfare.

2 - Whether you engage in commerce raiding or not, you must still actively defend against it.

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3 - While any amount of commerce raiding can help in a strategic sense, a well thought out and well supported campaign can reap huge dividends for your war effort.

Please note, none of these suppositions require any specific technologies. They will work with TL9 missile-armed STL boats, TL 15 PAW-armed jump raiders, and TL 2 catapult-armed triremes.

An important aspect of commerce raiding in Our Olde Game will be the 'jump geography' of that setting. By the term 'jump geography', I am not referring to mains and clusters or jump drive parsec ratings by TL. Rather, I'm referring to the nature of jump itself; jump limits, jump masking, and jump accuracy, both distance and temporal.

Just as the geography of Earth assisted or constrained the commerce raiding campaigns of the past, the 'jump geography' of the Traveller setting will assist and constrain the commerce raiding campaigns of our fictional future.

We have examined history and found that, while commerce raiding rarely, if ever, actually won wars, it did provide a substantial strategic benefit for those who practiced it. Commerce raiding delivered this benefit by forcing your opponent to divert resources into commerce defense and away from his offensive war effort, all at a relatively small cost to you.

What's more, the primary defense against commerce raiding, the convoying of merchant vessels, also worked in the raider's favor. While convoys made it harder for raiders to intercept and sink merchant traffic, they also limited the flexibility of the convoying power's shipping schedules. This inflexibility in turn creates an artificial shipping shortage adding to the shortage actual raiding creates.

Commerce raiding interferes with your opponent's shipping capacity by three methods. First, it actually destroys or damages vessels. Second, it forces an enemy to convoy his vessels limiting the number of times they can travel. Finally, vessels are prevented from travelling at all, due to a fear for their destruction.

All of this is fine, but it can it really be transported from historical Earth to our fictional Traveller universe? Commerce raiding works on Earth because no industrial nation can meet all of its needs without imports. Would the same be true in the 57th century? I believe the answer is a qualified 'yes'.

Canon has the collapse of trade leading to the collapse of interstellar civilization and the death of worlds. Whatever it is that merchants move between worlds, unobtanium or uberwidgets, the lack of that traffic adversely affects worlds, sometimes to great extremes. High pop, high tech systems may be - should be - largely immune to the effects of a loss of trade, but canon has these worlds suffering also. Whatever it is that interstellar commerce provides the worlds of the future, it is as vital to them as international trade is to us.

Canon also has combatants in many times and many places engaging in commerce raiding. The Terran Confederation raids the Ziru Sirka. The Outworld Coalition raided the Marches during each of the Frontier Wars. During the Third Frontier War, the Coalition did little but engage in commerce raiding. The Julian Protectorate forced a stalemate with a young Third Imperium thanks in no small part to aggressive and widespread commerce raiding. The Vargr need only be mentioned in passing, raiding is that species' preferred method of war.

The list of commerce raiding powers in Traveller canonical history is lengthy. Commerce raiding takes place in Traveller. It is as least as effective as it has been on Earth. The question before us now is how does that raiding take place? And, more importantly, how is it defended against? An examination of the 'geography' in which this far future commerce raiding campaign will be fought should help us.

Interstellar commerce will be traveling between stellar systems, naturally. In the Traveller Universe, this requires the use of jump drive and nature of jump drive lays out the 'geography' of our battlefield.

For most of our convoy's voyage, jump space is

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the defenders' best friend. Jump space is safe space. The enemy cannot engage our convoy while it is in jump space. Just as the sea going convoys on Earth looked forward to foul weather, shallow water, and friendly coastlines, the convoys of the 57th Century will yearn for jump space.

Vessels entering jump must do so beyond 100D of a +1km object. (Yes, I know it can be done at +10D, but with a greater risk of misjumps. We're shipping critical cargoes here, do you want to throw a steady percentage of it away in misjumps?) Normal space is the only space where commerce raiding can occur and cargo vessels will only be traversing a relatively small part of it. Once again, this works in the favor of the defenders, a 100D 'bubble' can be swept constantly and defended. Enemy raiders would be forced to operate in or near this bubble to damage or destroy any cargo vessels.

With cargo vessels spending most of their time in jump space and only a 'short' period of time in normal space dashing to the 100D jump limit, the job of commerce raiders begins to look nearly impossible. There are other factors that put the scales back in balance however.

Jump masking and jump shadows will work in the raiders' favor. Any object that exerts a 100D jump limit also masks travel through jump space. A vessel's plotted course must clear the jump limits of all the objects between the jump entry and exit points.

Stars create the largest jump masks and shadows. In the case of the Sol System, Earth orbits relatively close to Sol's 100D jump limit. On occasion, vessels departing Earth for other systems have to clear Sol's jump shadow, a 'bubble' with a radius of over one AU.

Convoys avoiding jump masks and shadows will spend a longer amount of time in normal space. This in turn will allow raiders more opportunities to engage them.

The conservation of momentum in jump space and stellar velocities will help the raiders. A vessel the same vector upon exiting jump space that it did when it entered jump space. This, coupled with dif-

fering stellar velocities, means that merchant vessels will rarely thrust directly for the jump limit and enter jump. They will have to choose a narrow set of vectors to bring with them through jump. If establishing those vectors causes them to spend more time in normal space, the raiders will have more time to act.

The length of a convoy's entire voyage will assist the raiders too. Only a few voyages will be one jump in length, most will require several jumps. The intermediate systems along a convoy's path may be weakly defended or not defended at all. Each 'stop' along a multi-jump convoy route will give the raiders a chance to operate.

Refueling requirements will also assist the raiders. Cargo vessels and escorts must be refueled after jump. Fueling can take place at ports, gas giants, ice bodies, any number of locations, but ports will be the safest. Wilderness refueling takes time, time that any raider can put to good use.

Raiders are helped yet again by the fact that they needn't destroy merchant vessels, they only need to damage them. A hit to a power plant or drive, a computer, any vital component in a system that can't perform the necessary repairs strands the merchant vessel. Once damage causes a vessel to drop below the convoy minimum, say 1G and Jump 2, that vessel must be left behind for the good of the rest. The cargo it carries might as well be lost.

Let's examine a few potential convoy routes. Each route assumes a convoy with a jump capability of two parsecs. (Jump2 was selected in order to cut down on the 'length' of the routes and because GT:FT makes a good case for the majority of Imperial cargo traffic to travel at Jump 2).

Our first convoy travels between Porozlo/Rylnor and Regina/Regina. The convoy route passes through Gileden/Rhylnor, Echiste/Lanth, Rech/Lanth, and then either Dinomn/Lanth or Yori/Regina before reaching Rhylnor. Five jumps in all, perhaps two months travel time when you take refueling into consideration. This route, while the 'fastest', may not exactly be the 'best', especially when you consider the systems the convoy will be

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passing through.

The first refueling stop on our route is Gileden. That system has a class 'C' port, a TTL of 6, and a pop level of ONE. Any defenses there are definitely deployed from another system. Porozlo, with a pop level of 'A', may picket or defend the two parsec distant Gileden system in the same manner and for the same reason that the Western Allies occupied and defended Iceland during WW1.

The next convoy stop would be Echiste, class 'C' port again, a TTL of A, and a pop level of 3. Again, Echiste would be unable to defend itself, let alone assist in defending a convoy. The convoy's escorts and, hopefully, occasional sweeps by other Imperial forces would be needed to keep the convoy's Echiste lay-over safe.

Rech, our convoy's next stop, has a class 'D' port, a TTL of 6, but a pop level of 7. Given off-world equipment, Rech's system defenders and COACC may be able to keep convoys safe on their own.

After Rech, our convoy can choose between two routes, through Yori or through Dinomn. With a class 'B' port, Dinomn would be able to refuel our convoy faster than Yori's class 'C'. However, Yori does boast a slightly higher TTL, an A vs. Dinomn's 9. Yori also has a larger populace than Dinomn, pop level 7 vs pop level 6. The choice of routes isn't clear here, the convoy could just as well choose either. Route selection would most likely be determined by additional factors; levels of raider activity, location of friendly forces, and so forth.

Finally, from either Yori or Dinomn, our convoy reaches the relative safety of Regina.

The second convoy route, between Regina/Efate/Regina and Regina, passes through intermediate systems even less capable than those between Porozlo and Regina. Whange and Forboln both have class 'E' ports, low TTLs, 7 and 4 respectively, and low pop levels, 1 and 6 respectively. Yet, this convoy route is actually better than the first one. Force based in Efate and Regina can each patrol the single system on their sides of the convoy route. A convoy passing between Regina and

Efate could have significant naval forces shielding it without any difficulty.

Our two convoy routes point out some interesting concepts. The second route passes through systems ill suited to support such traffic, but is easy to defend. The first route, a 'least time' route over a longer distance than the first, may not be the best choice for convoys between Porozlo and Regina. Another route could pass through intermediate systems more suited for defending the convoy, call it 'defensive island hopping', but that take a longer amount of time. Selections between routes will depend on a whole host of factors like time, defenses, and the known or suspected presence of the enemy. The 'answer' to these questions will always vary from convoy to convoy.

Convoy life and escort duty will be no walk in the recreation dome. Keeping a convoy of cargo ships in any sort of order will be more like herding cats than directing a marching band. We are dealing with people, first and foremost. There will be the grizzled old free trader captain who thinks the navy commander is snout nosed infant and there will be the naval officer who think all merchant spacers are oxygen thieves. There will be those vessels that, either through happenstance or incompetence, ignore or fail to carry out an order.

Normal space maneuvering will be a nightmare, even with the help of computers. Wildly different vessels, with even wilder crews, will all need to achieve the same vector, all usually at just one gee, the acceleration available to the slowest.

They'll need to reach the calculated jump point in a very narrow time window. If MT's squadron rules are used, and I firmly believe they should be, the jump plot of ever vessel in the convoy and among all the escorts will need to be shared and calibrated against one another.

Upon exiting jump space, all the convoy's vessels may arrive within minutes of one another thanks to MT's squadron jump rules, but they will still be scattered about, jump distance accuracy is 3000km per parsec jumped. The convoy will have to take time to redraw it's defensive formation from vessels scattered across 6000 or more kilometers.

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Refueling after every jump will take time. I seriously doubt that a convoy will attempt wilderness refueling unless there is no other choice. Skimming a gas giant is already dangerous enough without having the possibility of raiders engaging you. Cracking fuel out of planetary oceans or ice takes precious time too. Every minute spent in normal space is a minute that raiders can get to you. The longer you travel in-system, the longer it takes you to refuel, the more danger you are exposed to.

The nuts and bolts of defending a convoy from strikes by commerce raiders is a little hazy in canon. There seems to be no specific 57th Century version of an 'area defense' or 'AA' ship. Escorts cannot place themselves between their charges and harms' way. In LLB2 and Mayday, vessels can fire at any targets that may be in range. IIRC, MT and TNE's BL have similar mechanisms.

HG2 allows vessels to 'screen' other vessels from enemy attack through a 'line' and 'reserve' mechanism. Once the vessels in the 'line' are reduced to having no offensive weapons left, the reserve may be attacked. This is the only mechanism in Traveller, that I am aware of, that would allow escorts to shield their charges.

There will never be enough escorts. The demands of the fighting fronts will continually suck combatants into the 'real' action and away from the convoys. Some escorts will travel with the convoys, attempting to shield or defend the merchants from any attack. Others will travel ahead of the convoys by hours or days, trying to 'sanitize' the route being used. Still more, if they are available, will patrol at random hoping to stumble across any raiders before they can strike.

Raiders will employ a number of different tactics and designs. At first glance, missiles seem to be the preferred raider weapon. Launching a few volleys at a distance allows the raider to choose the range of engagement and increase the chances that he will be able to avoid any damage inflicted by the escorts. Missiles mean resupply though. A missile armed raider will eventually have to return to base or rendezvous with supply ship or pre-positioned

caches.

Raiders with energy weapons can ignore supply issues for far longer than their missile armed brothers. Using beams means closing on your targets however and that means you'll run a greater risk of being damaged by the escorts or by the merchant vessels themselves.

In both cases, the raiders will be attempting to damage vessels, not destroy them. A long series of attacks that cause minor damage to many enemy vessels and no damage to yourself is preferable to a single attack that destroys a few enemy vessels but forces you to return home for repairs.

Specific tactics will depend on weapon choices, the number of vessels available, even tech levels, but raiders will annoy more than they attack. Simply showing themselves and forcing resources to be diverted to defend against the possibility of their attack is a victory. 'Bait and switch' operations may be used; some raiders allow themselves to be run off by patrols sweeping ahead of the convoy, while others lay doggo and wait. One raider coaxing or stooging an escort away from the convoy could allow free fields of fire for others.

The operational possibilities for both sides are endless; 'A' begets 'B' which in turn begets 'C' and so on. Each side will need to remain flexible, ready to change tactics, schedules, doctrine, everything in response to the other's changes. The initiative will swing back and forth between both sides during the whole course of the campaign.

Commerce raiding is strategic warfare. No flashy, and costly, successes are required. The watchwords are 'attrition' and 'diversion'. Discomfort your enemy, make him dance to your tune, make him expend far more effort defending himself from your attacks than the effort you expend in making them.

Finally, leaving aside the great strategic benefits of commerce raiding and the sheer necessity of commerce defense, raiding and convoying are made to order for the role-playing portion of Our Olde Game. In a commerce raiding/defending campaign, the PCs can COUNT. Their vessel, their job, isn't lost in the numbers. They aren't one of ten

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thousand marines serving in a battle fleet. They aren't just another engineer among hundreds aboard a dreadnought. They are THE battery chief trying desperately to slag that raider before it can hit the merchies. They are THE comm tech trying to coax dozens of free traders into some sort of order. They

are THE raider captain trying to outguess her opponents and discern where their convoys will try and refuel next.

Thus ends my dissertation. I hope you enjoyed reading it, and that all this helps your games somehow. I hope you'll tell me where I got it completely wrong. Most importantly, I hope you all have FUN. Remember, YTU, MTU, the OTU, it is all Traveler and it is all good!

Up Close and Personal

Dain Aakhen Thrangar

by Dan Roseberry

Dain is a human male of clear solomani heritage, about 1.8m tall, and 80kg. He has brown hair and hazel eyes, and is in general average looking, always wearing tinted eye glasses, usually dressed in green T-shirt, green cargo pants and brand-name tennis shoes.

He is very curious, always dependable, works well with others, and takes pride in his achievements. Occasionally, he will experience periods of melancholy over being rejected by childhood friend.

Dain was born in 1071, at the local general hospital on Inthe. He grew up in a very middle class Imperial family. His father, Aakhen Ariiren Thrangar, was a Merchant serving with Oberlindes Lines, and was often away from home. His mother, Alethea Annette Maris-Thrangar, was an artist, and concentrates on making decorative ceramics. Being an only child, and with his parents being busy a great deal of the time, Dain turned to television, spending several hours a day watching the local programming.

One day, while watching a documentary on Terran music, Dain heard the unmistakable sound of the King. He became a Elvis Pressly fanatic, wanting to know everything there was to know about the great one. When Dain reached the age of 12, he went to visit the Graceland Temple of St. Elvis on Inthe (the temple being an offshoot of the Orange Catholic Church and the Society of Humaniti, pledged to "spread the works of the TRUE ST. ELVIS". Dain was ridiculed by his friends

who, as he would put it, "just don't understand the ways of the King."

His devotion to St. Elvis was causing trouble with his school grades. Eventually, his parents intervened, saying that there would be no more studying of this "Elvis person" until he improved his studies. This Dain did with abandon, becoming a honor society member at his local high school. His parents encouraged his efforts, with his father eventually scrapping up enough money to buy a Naasirka model 128 hand computer for his birthday. Dain eventually received an academic scholarship to a prestigious prep school on Regina, where he went to complete his pre-collegiate education in 1087.

While on Regina, he pursued Gamm Khaasira, a very cute looking blonde high school friend from Inthe. She did not return his affection, however, preferring instead to be "just friends". Dain was crushed, and spent half a year recovering from her rejection. He vowed at the time never to love another. While he would later date other women, he still has melancholy memories of Gamm.

In 1088, Dain received admission papers to attend the University of Regina. He accepted enrollment and began his academic career in the fall semester of that year. In his sophomore year, he first met Dr. Kylor Dukagen, who was an instructor in a basic astronomy class that Dain was taking. They became good friends, often having discussions of the early days of Solomani space travel. Dain spent most of his time in the study carrels of the University Library. He avoided joining the college fraternities, preferring instead to be a GDI (Gosh Darn

Up Close and Personal

Independent). He did, however, join the University of Regina chapter of the Phi Alpha Theta historical honor society, principle to gain contacts with people who studied the early space faring period of Terra, and to learn more about St. Elvis of Earth. In 1092, Dain graduates with honors from the University of Regina, obtaining a Bachelor of Arts degree in Political Science.

Dain decided to join the Imperial Interstellar Scout Service because he wanted to follow in the exploits of the ancient Terran astronauts. His academic performance helped him obtain the rank of Administrative Trainee, after he completed Operations Office Initial Training on Hefry (SM1909). He was then sent to serve in the Imperial Scout Fleet. In 1094, Dain received Flight Wings after completing pilot training at the Regina Scout Base for a exploratory mission into the neutral zone, which required supervision by the Operations Office. He completed this mission successfully, and was promoted to the rank of Junior Administrator. He also received a General Services Medal for his contribution to the Scout Service. While operating out of the Regina Scout Base, he met Mrs. Sirtie Agamolin, a SPA clerk working at Regina Down port. Sirtie knows all the local star port gossip, and has an almost eidetic knowledge of ships schedules and arrival/departure times. This friendship assisted Dain in his efforts to keep track of ships in the Scout Fleet.

In 1095, Dain was sent again on a mission requiring supervision by the Operations Office, this time involving a Interdiction Probe to the Djinni system. The probe focused on system geography and orbital mechanics, with a particular emphasis on rogue asteroids and the systems Oort cloud. Dain thought it was odd that Djinni itself and most of the worlds in the inner system were not part of the probe study. He dismissed the unusual nature of the probe, and concentrated on his duties. After a year of activity in the out system, Dains ship was relieved by a Scout ship who had apparently arrived to conduct a survey of Djinni itself. The two ships met and docked, and the crews gave themselves a liberty between missions. It was during this period that Dain met Farquhar McPhar, who

had come to Djinni to work in the charting mission.

In 1097, Dain was able to transfer to the Base Branch of the Operations Office, and return home to Inthe. Working at the Scout Way Station on Inthe, his achievements at the Inthe Scout Headquarters Unit won him a promotion to Administrator. He also received two medals, the Defense Meritorious Service Medal and the Imperial Organizational Excellence Award.

Dain received the Imperial Organizational Excellence Award for a second time the following year, continuing his excellent achievements for the Scout Service.

The Scout Service was so impressed with Dains performance that they transferred him to the Education Branch of the Technical Office in 1101, so that he would pass on his abilities to new scout recruits. Dains new training unit received the Outstanding Unit Award that year. In addition, he achieved some fame after winning third place in a martial arts competition, something unheard of in a competition dominated by local army troopers. Dain claimed he just got lucky. In 1103, Dain was promoted to Group Administrator and placed in command of the Inthe Scout Base. His work as Base Commander helped him receive the Imperial Service Medal. He also received a third Imperial Organizational Excellence Award.

1104 proved to be a bad year for Group Administrator Thrangar. The trouble began innocuously enough. Dain was tasked by his superiors to find ways to cut costs in the Scout Base budget. Dain instituted a low bidder policy for the purchase of supplies and materials, regardless of their manufacturer. This is how Dain discovered a young Milo Mills, self-described "Master Merchant," who was offering dynamic link panels for star ship computers at ridiculously low prices. The panels, it turns out, were of Vargr "manufacture". Some were actually made in the extents under lax workmanship standards; others had been "acquired" by the Vargr through their raiding, repackaged as new, and sold on the market.

Naturally, when these panels were put into scout ships at the In the Base, problems developed. While no casualties occurred, the problems were of

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a serious enough nature to cost the Scout Service several million credits. It was decided by the Scout Service Bureaucracy that Dain should be mustered out, but should be allowed to keep his rank and other privileges, due to his exemplary career prior to these unfortunate incidents. Dain left the Scout Service in late 1104, determined to regain his reputation, and explore the universe.

Dain's immediate goals are to acquire weaponry for the Shinarrow Vulcan, to gain either level 2 navigational proficiency or Sensor Operations-1 proficiency, thus qualifying him for rated tickets in Pilot and Navigator, to acquire programming for the Shinarrow Vulcan's computer, and to acquire wealth.

In the long term, Dain would like to get back in the good graces of the Scout Service. He also wants to see more of the universe.

PC's that are without a star ship and are in need of one can turn to Dain for assistance. Dain is especially interested in prospecting and would look favorably on having a Belter aboard.

No more than 6 PC's can be aboard the Shinarrow Vulcan; Dain demands privacy and will not tolerate having anyone in his stateroom. In addition, Dain only has life-support aboard for four individuals, so the PC's will have to contribute if they have more than 3 to go aboard.

Dain is very pro Imperial, so he will take a dim view of anyone suspecting of anti-Imperial attitudes.

Character Profile

Classic Traveller and MegaTraveller

Dain Aakhen Thrangar 8888C6 Age 34 4 terms
Scout Group Administrator; Cr1151 (pension Cr0)
Experience 20, Determination 16
Honors Graduate, University of Regina
Homeworld: Inthe/Spinw'd March 2410 B-575776-9
Hits 4/5, Cloth Armor (AV 5)
Skills: Pilot-1, Admin-1, Brawling-1, Navigation-1, Leader-1, Submachinegun-1, Ship Tactics-1, Carousing-1, Vacc Suit-1, Engineering-1, Computer-1, Electronics-1, Air/Raft-1, Wheeled Vehicle-0
Possessions: 9mm SMG, use of Type S *Shinarrow*

Vulcan (dual turret: Beam laser, missile rack; ground defense turret: 6-barrel 20mm autocannon)
Contacts: (Academic) Dr. Kylor Dukagen (usually reliable, quite available); (Scout) Farquhar McPhar (somewhat reliable, available fairly often); (Trader) Milo Mills (somewhat reliable, available fairly often); (Government) SPA Clerk Sirtie Agamolin (usually reliable, available fairly often)

NPC Morale: 3 (has not received any ground combat training)

PC Morale: per Striker, has high initiative. Will retreat if the Scout ship is seriously threatened, otherwise will fight it out.

Traveller: The New Era

Dain Aakhen Thrangar 7777B6-0-6 Age 34
4 terms, Scout Group Administrator,
Skills: Pilot (interface/grav)-3, Admin/Legal-2, Martial Arts (unarmed)-2, Astrogation-2, Leader-2, Slug Weapon (rifle)-2, Ship Tactics-2, Carousing-2, Environmental Suit-2, Ship's Engineering-2, Computer-2, Electronics-2, Vehicle (wheeled)-0
Possessions: 9mm SMG, use of Type S *Shinarrow Vulcan* (dual turret: Beam laser, missile rack; ground defense turret: 6-barrel 20mm autocannon)
Contacts: (Academic) Dr. Kylor Dukagen (usually reliable, quite available); (Scout) Farquhar McPhar (somewhat reliable, available fairly often); (Trader) Milo Mills (somewhat reliable, available fairly often); (Government) SPA Clerk Sirtie Agamolin (usually reliable, available fairly often)
Initiative: 3; Weight: 80kg; Load: 42kg; Throw: 28m; Unarmed combat damage: 1
Hit Capacity: Head 14; Chest 42; All Others 28

Marc Miller's Traveller

Dain Aakhen Thrangar 8888C6 Age 34
4 terms, Scout Group Administrator; Cr1151 (pension Cr0)
Homeworld: Alekvaadin/Core 0811 B-675977-A
Ind Hi 702 M3V
Skills: Pilot-1, Admin-1, Brawling-1, Navigation-1, Leader-1, Submachinegun-1, Recon-1, Carousing-1, Vacc Suit-1, Engineering-1, Computer-1, Electronics-1, Air/Raft-1, Ground Craft-0, Jack-of-all-Trades-1, Perception-2, Writing-2, Research-2
Possessions: 9mm SMG, use of Type S *Shinarrow*

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Vulcan (dual turret: Beam laser, missile rack; ground defense turret: 6-barrel 20mm autocannon)
Contacts: (Academic) Dr. Kylor Dukagen (usually reliable, quite available); (Scout) Farquhar McPhar (somewhat reliable, available fairly often); (Trader) Milo Mills (somewhat reliable, available fairly often); (Government) SPA Clerk Sirtie Agamolin (usually reliable, available fairly often)

In the Milieu 0 setting, Dain's college attendance was on Sylea, and the special mission was a recon mission to Imaar Pa.

GURPS Traveller

Dain Aakhen Thrangar [140]
Str 11 [10], Dex 11 [10], HT 11 [10], IQ 12 [20]
IISS Ship Patron [28], Claim to Hospitality (former scouts) [10], Courtesy Rank O4 (Group Administrator) [4], Academic Contact: Dr Kylor Dukagen (usually reliable, quite available) [16], Scout Contact Farquhar McPhar (somewhat reliable, available fairly often) [2], Trader Contact Milo Mills (somewhat reliable, available fairly often) [2], Government Contact SPA Clerk Sirtie Agamolin (usually reliable, available fairly often) [2], High education (University of Regina) [5], temporary money (Cr1151) [18]
Code of Honor (Scouts) [-5], Duty (reactivation, to Scouts) [-5], Sense of Duty (to Imperium) [-10], Bad eyesight (correctable) [-10], Curiosity [-5]
Quirks ([-1] each): Proud, Responsive, HavaCola addict, Worships St. Elvis, Avid gamer (note 0-point gaming-8 skill below)
Skills: Pilot (large spacecraft)-12 [4], Administration-12 [2], Astrogation-12 [2], Leadership-12 [2], Tactics (Space combat)-12 [4], Carousing-11 [2], Shipmaster-12 [2], Vacc Suit-12 [2], Engineering (Starship)-12 [4], Electronic Ops-12 [2], Pilot (CG Craft)-12 [4], Computer Ops-12 [1], Brawling-12 [2], Driving (stock car)-10 [1], Submachinegun-12 [0.5], Area Knowledge (Inthe)-12 [1], Area Knowledge (Regina)-12 [1], Area Knowledge (Inthe Scout Base)-12 [1], Area Knowledge (University of Regina)-12 [1], Area Knowledge (Djinni Outsystem)-12 [0.5], Area Knowledge (Galaxy)-12 [4], Gaming-8 [0]
Licenses, Ratings, and Certifications: Pilot License,

Driving License, CG Pilot License, Electronic Ops License, Ship's Master 5th Class Unrated.
The Pilot License does not confer a Pilot Rating.

Central Casting: Heroes for Tomorrow

Dain Aakhen Thrangar, Human (solomani) male
Future Mod: 14 (Imperial Future History)
Tech Mod: 11 (First Stellar Age [Traveller TL9])
Education Points: 39 (Outstanding Education)
Culture Mod: 10 (Dynamic)
Social Status: Comfortable
Sol Mod: 4
100% Literacy
Birth Mod: 0 (No noble title, legitimate birth, 2 parents, only child, born in hospital, Frontier world)
Father: Aakhen Ariren Thrangar, retired Merchant, owns fast-food restaurant,
Mother: Alethea Annette Maris-Thrangar, artist specializing in decorative ceramics
Skills: Literacy-7, Wilderness Survival-2, Rural Survival-2, Urban Survival-2, Skiing-4, Adventurer-2, Explorer-2, Spacecraft Pilot-2, Administrator-2, Spacer-2
Personality Traits: Light Side 4 (Organized, Respectful, Dependable, Wise); Neutral 1 (Curious); Dark Side 1 (Caffeine Addict [HavaCola])

The Shinarow Vulcan

The IISS *Shinarow Vulcan* (S-17704) is a typical Type S (*Suleiman*-class) Scout/Courier. Its single turret carries a 250MW beam laser and a 150mm missile launcher/autoloader (1 missile loaded, 2 in turret magazine). The avionics hatch has been replaced by a ground defense turret carrying a six-barrel 20mm hypervelocity autocannon with electric action, TL9 direct fire control, and autoloader. There are typically 640 rounds of KEAP ammunition on board.

The following equipment item bundles may be found aboard the ship:

Space side EVA equipment kit: 1 TL10 Vaccsuit, w/25km helmet radio, magnetic grips, 5 suit patches, Suit liner, 6.2kg; 1 TL10 Radiation Card; 1 TL10 Wristwatch; 1 TL8 Backpack 3kg; 1 TL9 Cold Light Lantern .25kg

Up Close and Personal

Dirt side EVA equipment kit: 1 TL6 Cloth Armor 2kg; 1 TL10 Combination Mask .5kg; 1 TL7 Light Intensifier Goggles; 1 TL8 Short Range Communicator .1kg; 1 TL10 Radiation Card; 1 TL10 Wrist-watch; 1 TL8 Backpack 3kg; 1 TL9 Cold Light Lantern .25kg

The ship is equipped as follows:

Rear Section [Lounge]:

1 Prospecting Beacon 1kg, 1 Ore Sampler 25kg, 4 vaccsuit umbilicals 10m 20kg total, 2 Hand Propulsion Units 4kg total, 1 Backpack Propulsion Unit 5kg

Ships Locker:

3 9mm Submachineguns 7.5kg total, 30 30-round 9mm magazines 15kg total, 4 Hostile Environment Kits 100kg, 4 Space side EVA equipment kits 37.8kg, 3 Dirt side EVA equipment kits 17.55kg, 2 Inertial Locators 2.5kg, 1 Laser Drill w/tripod 10kg and 1 power pack 8kg

Engineering:

Electronic Tool Kit 5kg, Metal Work Tool Kit 50kg, Mechanical Tool Set 20kg, 20 Wall Patches 80kg total

If the PCs are aboard the *Shinarrow* Vulcan, they'll see the following:

Common Area:

1 Framed movie poster, depicting a heroic Imperial Agent battling two vile Ine Givar rebels with an energy pike.

Assorted food stuffs, including spicy nacho chips and Zilian chardonnay salsa.

Life support and supplies for 14-four person days.

1 Medical Kit 10kg

Commanders Stateroom:

1 Dirt side EVA equipment kit 5.85kg in closet

1 9mm Submachine gun 2.5kg in closet

10 thirty round magazines 5kg in closet

1 TL7 rescue ball 5kg

1 TL9 chrome flat vid screen

1 TL9 blue and chrome audio entertainment system

1 TL9 chrome lava lamp with blue stuff on the inside

1 Iridium framed black velvet portrait of the King

In the ships safe: 2 bracelets, one inscribed with W.W.E.D. "What would

Elvis Do?" and the other inscribed with T.C.B. "Taking Care of Business"

Stateroom Two:

1 Framed picture showing a dew claw duel between two Aslan nobleman.

1 TL7 rescue ball 5kg

Stateroom Three:

1 Framed picture showing a Kian and its jockey winning a race.

1 TL7 rescue ball 5kg

Stateroom Four:

1 Framed portrait, a heroic depiction, showing Arbellatra on the bridge

of her command ship, kneeling in prayer before battle.

1 TL7 rescue ball 5kg

Bridge:

2 Strawberry air fresheners (one still in package)

Assorted navigational maps

2 jump one navigational cartridges

Critics' Corner

Marc Miller's Traveller: Starships

Reviewed by Richard Crowley

T4 Starships. Don Perrin

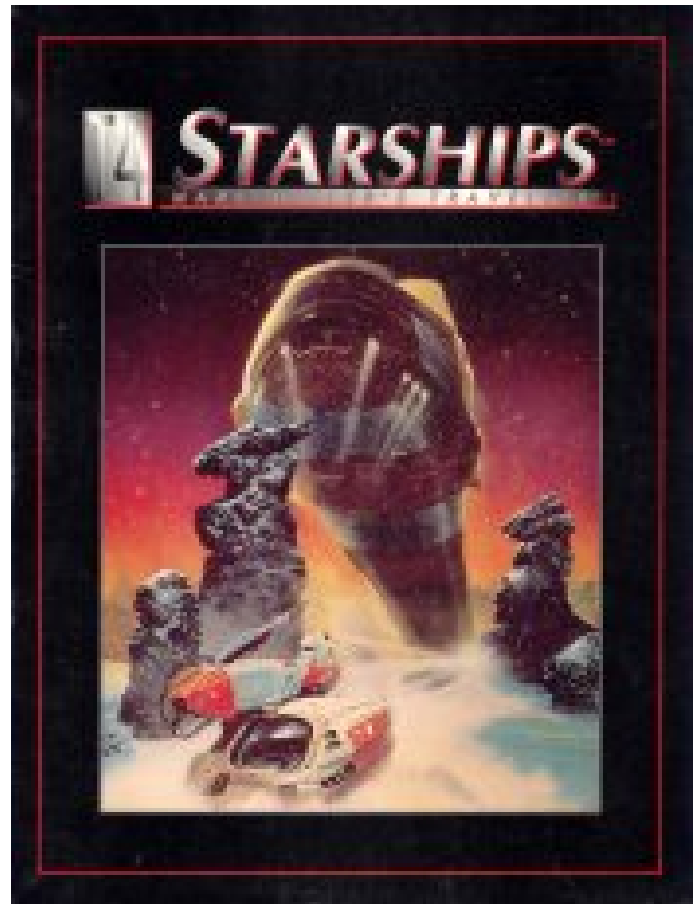
Imperium Games: (defunct; no website at present)

128pp

Out of Print. Check used book stores and websites for price and availability.

Don Perrin is the game designer who originally designed chapter 8, "Spacecraft" in the core rule book. Before I finish this review, I hope to show the viability of both the Quick Ship Design System (QSDS) and the Standard Ship Design System (SSDS) as they are used in this supplement. In my opinion, This product well-deserves a place among other Traveller products simply because it introduces new options and design methods for referees of all experience levels. I appreciate that myself, because I am not very good at using formulas and charts to compute every item that is included on a typical ship or trader. I will discuss, in turn, the usefulness of the starship designs, the SSDS and the design tables as they exist in the T4 rules and in Starships.

As I write this, several supplements for T4 have been released, and it is clear that in Traveller 4, supplements rely heavily on the rules given in Book 1, the core rule book. This holds true for Starships, the first supplement to be published. Some errors have crept in, but only where the core rules also have an error; the other significant portions of the book, like the imperial calendar, the 30 deckplans and starship data and the extensive artwork appear free of obvious errors. I found several problems with the design system which were more or less solved by referring to the quick system in the core book. One glaring omission is the lack of a size rating table in the ship creation data in the final pages of the book. Stylistically bad is the placement of the control modifier table next to the gutter at the top of the last page of the book. It is harder to find that way and doesn't seem to fit well with the data that is presented close to it. This haphazard placement of data tables was common in the core book, and this is an example of it in Starships. Another thing I didn't like was the presence of the Im-



perial calendar and its usage in the front of the text. I think it should have found a better use in the core book where most referees and players look for common and basic elements of the game (like information about the Sylean Empire).

T4 Starships has many redeeming qualities, and these alone are good reasons for buying the book or borrowing it from your local library. Starship plans come with an artist's rendering, a detailed floorplan and the usual short paragraph concerning special rules or design concepts. The players can see their starship in action in 12 full-color paintings in the back of the book.

The SSDS is perhaps the most amazing feature of the book. Unlike some supplements to other games, Starships is not merely a 107-page catalog of common hardware, it puts the the referee in charge of what ships can be specifically made and what rules are involved. In the light of the core book and the aid of the full published version of the rules at <http://traveller.mu.org/archive/T4/ssds.pdf>, it is possible to design efficient, inexpensive ships for any mission or purpose in a campaign setting.

(Continued on page 30)

(Continued from page 29)

The presence of multilevel yachts presents interesting problems for this book, since it is not possible to show deck plans for a vast pleasure craft such as the 15-level Luxury liner (26) or the 7 level large armed freighter (52). Most small craft and medium non-military sized ships are given plan views of every floor, but this was not done with these ships, nor, apparently, could it be done without expanding the size of the supplement unreasonably.

Since the SSDS is so pivotal to the success or failure of this book, it must be reviewed in turn by itself.

In comparing the SSDS to other ship design systems (Like CT, MT FF&Sv2), it can be seen that it is quite unique in some aspect. The most unique feature of the system is calculating the hull volume and surface area, and internal structure values. These are basic steps, but they are integral to the final stages of the design. Unlike GURPS, CT and its relatives and Fire Fusion and Steel v2, determining volume and surface area is determined by two basic values: volume and maneuver speed in G's. Internal structure is also a concept that was confusing to me.

Internal structure is handled in many cases like that of a planetoid hull where a certain portion of the volume must be left empty for the sake of structural integrity and streamlining modifications. After internal structure is determined, the design process becomes markedly less difficult and counterintuitive. Fans of other ship creation methods will be familiar with such things as maneuver drives, weapons, defenses, artificial gravity, fuel scoops and so on. Not all of the design sequence is easy, however, because in the published version, there is no way to find Fuel factor or the method of denoting weapon capabilities on the Universal Ship Profile. The inability to denote weapon capability on the T4 USP is frustrating because at first, battery notations seem to be the same as in MegaTrav-

eller, but are in fact a combination of the number of batteries of a weapon, a weapon identifier and a USP combat statistics (106 in the core book). This seems simple enough, but we have to go back to the Quick Ship Design System in the core book to find this information and, even then, battery information is given for Laser batteries only. Missile stats are listed on page 108 with sandcasters just preceding it. This is frustrating because effective description is just as vital to the gaming session as was the design of the actual ship. When in doubt, select one of the premade examples throughout the book.

To sum up, T4 Starhips is a fitting supplement to the Traveller 4 core book. Its collection of 44 predesigned starships, slowboats and fighters can be enough to satisfy the needs of any SF role-playing game and even more for campaigns set in the Milieu of Traveller 4. The information about the Imperial calendar is misplaced and its space could have been saved by the missing elements of the design sequence (i.e. A better section creating the USP, fuel control rating or a more well-written explanation of why the volume of a hull is not always the same as the internal structure of that same hull. Apart from those stark errors, the book is well-worth its original cover price of \$20, simply because of the creativity of the designs themselves. The supplement concludes with advertisements and coupons for "JTAS" and "Citizens of the Imperium Magazine" - but these are really unusable, as to cut out and use the coupons, one must cut out vital data, including some or all of the Control Rating, Fire control, and USP Conversion tables.

The best advice I can give is for referees and possibly players is to know the Quick Ship Design System front wards and backwards and cross reference its information with the Standard System found in this book and online at <http://traveller.mu.org/archive/T4/ssds.pdf>. Chapters 8-10 of this book, however, are nevertheless quite helpful in understanding the SSDS method and how to list USP information.

Feedback

We'd like to hear what you think of Freelance Traveller, both the magazine and the website!

We want to know what you think of the basic idea of Freelance Traveller as a magazine, not just a website; what you think of the articles we publish, and how we can make our magazine better and how we can make our website better.

We want to know what kind of articles you want to see, and what you *don't* want to see.

We want to know what you think of our look, and how we can make it better.

Please, give us your opinion! We've provided several ways you can do so:

You can send e-mail to us at feedback@freelancetraveller.com.

You can use the feedback form on our website,

<http://www.freelancetraveller.com/infocenter/feedback/ftfbf.html>.

If you're a member of the SFRPG Forums, we monitor them, so you can post comments in the **General Discussion** section, at <http://www.sfrpg.org.uk/phpBB3/viewforum.php?f=45>. Please tag any commentary about Freelance Traveller with the string "[Freelance Traveller]", or reply to our message announcing the issue.

If you're a member of the Citizens of the Imperium forums, we monitor them as well, so you can post comments in the **Lone Star** section, at <http://www.travellerrpg.com/CotI/Discuss/forumdisplay.php?f=13>. As with the SFRPG forums, please tag any commentary about Freelance Traveller with the string "[Freelance Traveller]", or reply to our message announcing the issue.

Traveller on the Internet

IRC: The #Traveller and #LoneStar channels

Freelance Traveller sponsors a channel for Traveller fans on the Undernet IRC network, and RPGRealms sponsors one on the Otherworlders IRC network—and the two channels are “bridged” so that if you're visiting either, you can see what's going on in the other, and talk to people there. For more information about both channels, see our informational pages at

<http://www.freelancetraveller.com/infocenter/travnet.html#IRC> and <http://www.freelancetraveller.com/infocenter/travchat/index.html>. Come talk “live” with other Traveller fans about anything at all, Traveller or not. It's generally quiet in both channels—but you can change that, and make both channels “jumping” places to hang out!

