STARBURST

April 1995   Issue: 28
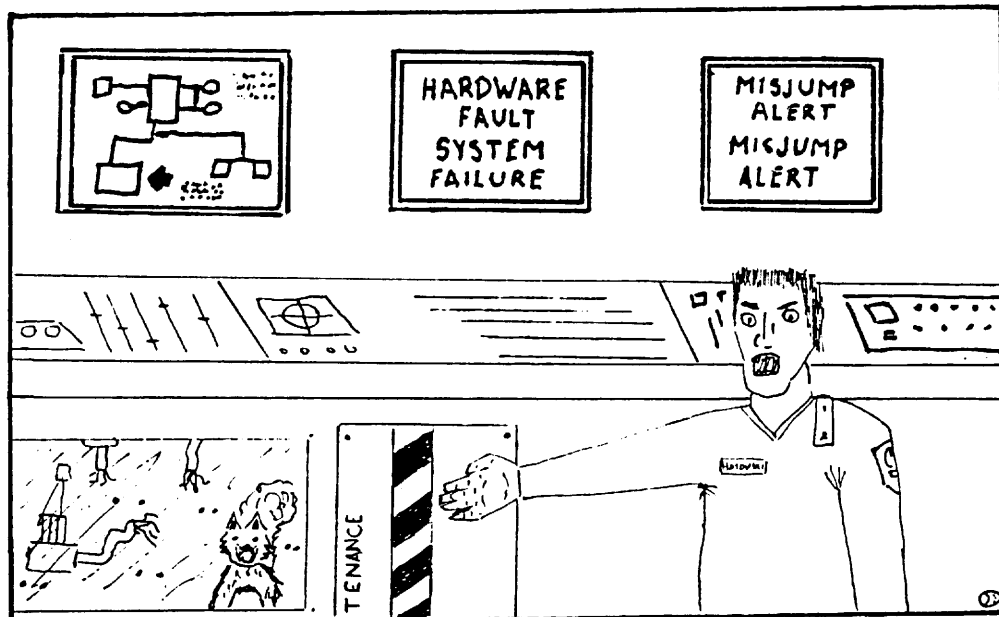
STARSHIP SAFETY TIPS #14
REGULAR MAINTENANCE IS A REAL GOOD IDEA!

REMARKS

 Well, this is the last sheduled STARBURST. The main reasons for this are essentially economic hardship that I (David Schneider) am experiencing, and (more importantly) a complete and utter lack of submissions from Australian members other than Grant and myself – producing a newsletter is hard if noone gives you anything to put into it. Oh well, such is life.

 I would like to take this opportunity to thank all those who have contributed to STARBURST over the years, whether with contributions or financially. In particular I wish to thank Grant Sinclair, who produced the last two of STARBURST for me while I was otherwise involved with personal traumas. I would also like to acknowledge Gustav Ness for numerous financial contributions which helped get STARBURST out. I couldn't have done it without them.

COORDINATORS RESIGN

 Following discussions between David Schneider and Grant Sinclair, both have decided to resign their positions as HIWG officers. Grant Sinclairs resignation from the position of HIWG Australia Data Coordinator takes effect immediately. Grant has decided to resign as the HIWG document library takes a great deal of time to maintain, and noone was ordering documents. This meant that all of Grants effort was being wasted, and both Grant and David felt that Grants time could be better spent.

Until further notice any orders for HIWG documents on disk will have to be directed to Clayton R. Bush in the United States. Anyone interested in assuming the position of HIWG Australia Data Coordinator should contact David Schneider.

David Schneider is resigning from the position of HIWG Australia Coordinator. Until further notice all paper copies of HIWG Documents will have to be ordered from Clayton R. Bush in the United States. All membership renewals will also have to be sent to Clay. Membership for one year is US$12. David will remain de facto leader of HIWG Australia until a replacement can be found, interested persons should write to David.

David, with Grant, remains coordinator of the Yiklerzdanzh Sector Development Project.

YIKLERZDANZH

Work on the project is coming along, 7C2I Contact: Meichntid Ibl is now available (8 pages). This document has revised all of the work done by Angus Foster and Steven Fernandez and turned it into a more player/Ref friendly document. By the way 7CI3 The Meichntid Ibl War of Independance was withdrawn some time ago and should be deleted from all document lists.

There is some major work yet to be done. The Carillon documents (7C06 & 7CI6) need some degree of rewriting and will probably be amalgamated. The Yiklerzdanzh timeline needs to be overhauled and rewritten. Apart from this a few of the other documents require minor work to bring them up to date and eliminate any inconsistencies. Once this has been done, the sector will be essentially finished. Persons wishing for a copy of the completed sector should make either David Schneider or Grant Sinclair aware of this. The work will continue for some time as David has recently returned to nursing studies and has St John Ambulance commitments. Grant has a full time job and has part time study commitments. So all work will have to be done when David and Grant can fit it in.

Play testing of Yiklerzdanzh sector has begun. David has been running a campaign at 'The Guild' gaming club at the Gamesquest premises in Hindley Street Adelaide. The campaign and setting have been very well recieved by the players, and the playtest has already highlighted a few areas that need a little more work.

The campaign adventure has centred around a secret Meichntid Ibl secret weapon captured by the S'raak during the S'raak War in II60. The S'raak warship then misjumped and crashed on Friaprchivzhdo (0738). In II20 a scientist on Forday's Fortune picks up the S'raaks distress signal and hires a group of adventurers to check it out.

The group included a Vlazdumecta noble, a demobbed Regency Scout, a Secret Service Agent who had defected from the Akigura Union and a couple of ex-marine types from the Forday's Fortune Defence Forces. The players journeyed from Fordays Fortune (0929) to Friaprchivzhdo, having many exciting enconters upon the way. These encounters included several attempts by Meichntid Ibl agents upon their lives, an interesting attempt to purchase false IDs and passports, and the ex-scouts attempts to visit everynight club in a twenty parsec radius of Forday's Fortune (presumeably in order to make a detailled report to the Regency Embassy).

Upon reaching Friaprchivzhdo the players investigated one of the ruined cities in an attempt to secure transportation. In searching an old government building they found a sealed room with an energy generator and a computer system containing the old government archives. They succeeded in starting the generator and were going through the archives whiles other went to the top of the building to look for old airrafts to salvage. It was at this point that one of the party in the archives decided to put the power from the emergency generator into the buildings main power grid so that 'the light would go on'. Within minutes the 70 storey building was ablaze. The members at the top of the building were able to salvage an old airraft and escape minutes ahead of the flames. Although they did plummet fifty seven storeys before the grav plates kicked in properly.

The players in the archives narrowly escaped the flames and were congratulating themselves when the building collapsed. One of them escaped by literally metres, and then only by dropping every piece of equipment he had and bolting. The fire rapidly spread throughout the ruined city and large sections were soon ablaze. As might be expected this rather upset the groups of nomads who regularly forraged in the city for salvage.

After many other adventures the party reached the wreck of the S'raak warship, located in some mountains, only to find a group of soldiers from Sitiefladr (0638) loading the weapon crate into a cutter and taking off. The players next step remains to be seen.

FOR SALE

David Schneider has copies of The Traveller Chronicle issues 5, 6 & 7 for sale. I have one copy only of each so the first person to respond gets them. They are six dollars each.
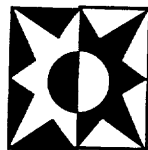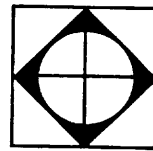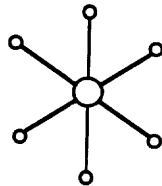
Yiklerzdanzh Sector Logos
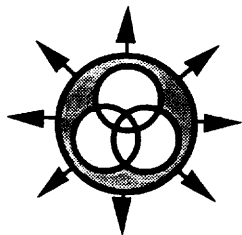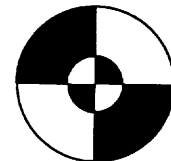
Talpaku Communality
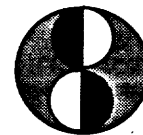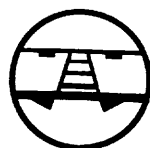
Zhodani Consulate

Meichntid Ibl

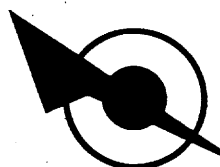Akigura Union

Carillon Harmonies

Glenauran Signatorate

Izrats Kriezhlas Unity

spares

S'raak Empire

Forday's Fortune

Mercantile Activities in the New Era

Not all of the rules changes introduced with Traveller: The New Era have obvious ramifications. This article discusses the consequences of two of them on mercantile activities, partly based on recent discussions from the Internet Traveller Mailing List (or "TML"). Incidentally, I highly recommend the TML to anyone with a modem and access to the Internet; contact the TML administrator (James Perkins) directly at traveller-request@engrg.uwo.ca. If you want more information, I can be contacted at grant@cleese.apana.org.au.

The first change is the introduction of the fusion HEPLAR drive to replace thruster plates. Since this drive consumes fuel, it is no longer possible to accelerate/decelerate for the entire trip time. If you are a free trader with 30 hours of fuel at 1G, going from orbit 3 (Terra) to Orbit 6 (Jupiter) takes 15.6 days, instead of 5.6 days as before. Going to orbit 4 (Mars) takes about 5 days (previously about a third of this).

The second change is the introduction of fuel purification plants to the standard type A Free Trader (surely the most common type of vessel to be owned by player characters in a merchant campaign).

With these changes, the operating procedure of a merchant ship is very different. The most cost effective way of trading is to jump insystem 100 diameters out from the mainworld, land and then discharge passengers and cargo. While waiting for new cargo, the ship refuels with water (quick and free, where ocean or ice harvesting available) or fills up with unrefined fuel (Cr100 per ton, totalling about Cr7100); then merrily produces its own refined fuel in plenty of time (only 27 hours for a type A Free Trader). When the new cargo and passengers are loaded, the ship heads back out to 100 diameters and leaves for the next system.

You will note several things here:
• Buying refined fuel (previously virtually unavoidable) is now pointless. It will be an exceptional event and you would have to wonder whether it is worth the while of A and B starports to sell it. If the price were to be dropped, it might be different (I don't believe that quintuple price is justifiable anymore anyway; if the people who make it actually get sales, they will be making obscene profits...).
• Gas Giants will generally now only be visited by military ships and by the rare merchant ships wishing to pass through a system without visiting the mainworld. This is because unrefined fuel is cheap or free and because it takes so long to reach one from the mainworld. There are some exceptions: barren systems, system where the mainworld is in orbit 0 and the gas giant is in orbit 1, and where the mainworld orbits a gas giant. The fact that gas giant refuelling takes longer and is more dangerous than ocean refuelling is also significant. Pirates wishing to make money should probably now stop lurking in gas giants...
• The old rule of 1 week in jump and 1 week in system (with 4 or 5 days on world) is now broken (it was never really true before, anyway). Your characters are unlikely to require more than 6 or 7 hours to travel from world surface to 100 diameters (or vice versa) and so will be able to get more jumps in than that rule would allow.
• Since your characters will now save Cr28,600 per jump and the Trade and Commerce rules are (unfortunately)

otherwise unchanged, this means that your characters will make that much more money per world than before.

Another consequence of the travel time of the new drive is that it will be rare for ships to travel through normal space to distant worlds of a star system. Ships will instead do a jump-0, to reduce travel time to a week, with the saving in time more than making up for any cost of refuelling. The only exception is travel to worlds where refuelling is impossible (which are rare since wilderness refuelling is possible if the world has a hydrographics percentage above zero or orbits a gas giant). Note that having the water in the form of ice is fine; Trillion Credit Squadron states that refuelling from icecaps takes the same time as oceans (which seems a bit strnge to me, but there it is). Loren Wiseman of GDW has said in TML that jump-0 is still approved, though he has yet to approve suggestions of a special jump-0 drive (which, obviously, is only capable of jump-0).

This in turn means that sizable ships without jump-drives will become less common (as there will be fewer need for them), which gives type B starports less to do (as they cannot build jump-drives and hence cannot build jump-capable craft unless they import jump drives). It makes SDBs less effective, since in large stellar systems, jump capable craft can now beat them to targets of interest (in a way impossible to track), do their worst, then refuel, refine and be ready to jump again before the SDBs show up.

Finally, there has been a lot of discussion in the past about the exhaust of these drives. Thruster plates were "clean" technology, leaving no exhaust, but fusion drives are much more like real world rockets. The fusion "torch" they emit is extremely hot and is quite long, which means that it has potential as a weapon and also means that starports are unlikely to be near large settlements (a spacecraft crashlanding or simply landing on the wrong spot would kill many people). I'm no expert on these matters, but the people on TML talking make it sound like standing in shirt sleeves under a Saturn V launch. I have seen no comment by GDW on this matter either way, though there might be something in *Fire, Fusion and Steel* or *Brilliant Lances*; perhaps we are just supposed to ignore the fusion exhaust.

Grant Sinclair

Incidentally, there are apparently numerous errors in the 100 diameters Travel Time table, the Interplanetary Distance Matrix and the Interplanetary Speed table in TNE pp 225-227. I don't know if these are corrected in *Brilliant Lances* or *Fire, Fusion and Steel*. Space permits only a corrected Interplanetary Speed table (write to David Schneider if you want the others):

G-hours	Time (min)
1	142
2	71
3	47
4	35
5	28
6	24
7	20
8	18
9	16

GURVIN (HIVER MAIN WORD GENERATOR)

People,

The following is the official Gurvin Table for HIWG Quadrant IV. This table has also been incorporated into {TrWords} available at FTP sites throughout this part of the spiral arm. Note that there were no Hiver language rules in Alien Module 7.

Leroy Guatney
l.guatney@genie.geis.com

(consisting of a compilation of "Gurvin" Words from Alien Module 7, the few "Hiver" names from Spica sector, Library data references, and a listing of names from the "Discord" subsector published in Imperium Staple #10 by Mike Mikesh, as well as some of my own. Mike and I "cross-compiled" the two versions of Gurvin that we had developed separately for this table.)

BASIC

	1	2	3	4	5	6
1	CV	CV	CV	CV	CV	CV
2	CV	CV	CV	CV	CV	CV
3	VC	VC	VC	VC	VC	VC
4	VC	VC	VC	VC	VC	VC
5	CVC	CVC	CVC	CVC	CVC	CVC
6	CVC	CVC	CVC	CVC	CVC	CVC

ALTERNATE

	1	2	3	4	5	6
1	V	V	V	V	V	V
2	CV	CV	VC	VC	VC	VC
3	VC	VC	VC	VC	VC	VC
4	VC	VC	VC	VC	CVC	CVC
5	CVC	CVC	CVC	CVC	CVC	CVC
6	CVC	CVC	CVC	CVC	CVC	CVC

Implementation:

1. Determine word length (1D6 syllables).
2. Determine syllable structure with 2 1D6 rolls. Use the BASIC syllable type table if FIRST syllable in a word, or if previous syllable ended in a VOWEL. Otherwise, use the ALTERNATE table.
3. Determine initial consonants from column 1; vowels from column 2; final consonants from column 3.
4. When a SINGLE letter VOWEL is rolled, roll another 1D6; on result of 1, roll an additional VOWEL; if that is a SINGLE letter VOWEL, add it to make the first VOWEL a new DOUBLET, i.e. "AE", etc.
5. Do not permit THREE OR MORE VOWEL LETTERS in succession from an occurence of say, CV.VC, or CV.V.CVC, etc.

Initial consonants (column 1)

		1	2	3	4	5	6
1	1	BL	BL	BL	BL	BL	BL
	2	C	C	C	C	C	C
	3	D	D	D	D	D	D
	4	D	D	D	D	D	D
	5	DR	DR	DR	DR	DR	DR
	6	F	F	F	F	F	F
2	1	G	G	G	G	G	G
	2	G	G	G	G	G	G
	3	G	G	G	G	G	G
	4	GL	GL	GL	GL	H	H
	5	H	H	K	K	K	K
	6	K	K	K	K	K	K
3	1	K	K	K	K	K	K
	2	K	K	K	K	K	K
	3	K	K	KL	KL	KL	KL
	4	L	L	L	L	L	L
	5	L	L	L	L	L	L
	6	LD	LD	LD	LY	LY	LY
4	1	M	M	M	M	M	M
	2	M	M	N	N	N	N
	3	N	N	N	N	N	N
	4	N	N	N	N	N	N
	5	N	N	N	N	N	N
	6	P	P	P	P	P	P
5	1	P	P	P	P	P	P
	2	PHL	PHL	PHL	PHL	PHL	PHL
	3	PHL	PHL	Q	Q	Q	Q
	4	R	R	R	R	R	R
	5	R	R	R	S	S	S
	6	SL	SL	SL	SL	SL	SL
6	1	SP	SP	SP	SP	SP	SP
	2	T	T	T	T	T	T
	3	TH	TH	TH	TR	TR	TR
	4	TR	TR	TR	TR	V	V
	5	V	V	W	W	WR	WR
	6	WR	WR	WR	WR	Z	Z

Vowels (column 2)

		1	2	3	4	5	6
1	1	A	A	A	A	A	A
	2	A	A	A	A	A	A
	3	A	A	A	A	A	A
	4	A	A	A	A	A	A
	5	A	A	A	A	A	A
	6	A	A	A	A	A	A
2	1	A	A	A	A	A	A
	2	A	A	A	A	A	A
	3	A	A	A	A	A	A
	4	A	A	A	A	A	A
	5	A	A	A	A	A	A
	6	A	A	A	A	A	A
3	1	E	E	E	E	E	E
	2	E	E	E	E	E	E
	3	E	E	E	E	E	E
	4	E	E	E	E	E	E
	5	E	E	E	E	E	E
	6	E	E	E	E	E	E
4	1	I	I	I	I	I	I
	2	I	I	I	I	I	I
	3	I	I	I	I	I	I
	4	I	I	I	I	I	I
	5	I	I	I	I	I	I
	6	O	O	O	O	O	O
5	1	O	O	O	O	O	O
	2	O	O	O	O	O	O
	3	O	O	O	O	O	O
	4	O	O	O	O	O	O
	5	OO	OO	OO	OO	OO	OO
	6	OO	OO	OO	OO	OO	OO
6	1	U	U	U	U	U	U
	2	U	U	U	U	U	U
	3	U	U	U	U	U	U
	4	U	U	U	U	U	U
	5	UA	UA	UA	UA	UA	UA
	6	UA	UA	Y	Y	Y	Y

Final consonants (column 3)

		1	2	3	4	5	6
1	1	C	C	C	C	C	C
	2	C	C	C	C	C	C
	3	CK	CK	CK	CK	CK	CK
	4	D	D	D	F	F	F
	5	F	F	F	FT	FT	FT
	6	G	G	G	H	H	H
2	1	K	K	K	L	L	L
	2	L	L	L	L	L	L
	3	L	L	L	L	L	L
	4	L	L	L	LD	LD	LD
	5	M	M	M	M	M	M
	6	N	N	N	N	N	N
3	1	N	N	N	N	N	N
	2	N	N	N	N	N	N
	3	N	N	N	N	N	N
	4	N	N	N	N	N	N
	5	N	N	N	N	N	N
	6	NSK	NSK	NSK	NT	NT	NT
4	1	P	P	P	P	P	P
	2	PHL	PHL	PHL	Q	Q	Q
	3	Q	Q	Q	Q	Q	Q
	4	R	R	R	R	R	R
	5	R	R	R	R	R	R
	6	R	R	R	R	R	R
5	1	R	R	R	R	R	RK
	2	RK	RN	RN	RN	RN	RN
	3	RN	RT	RT	S	S	S
	4	SK	SK	SK	SK	SK	SK
	5	SK	SK	SK	SK	SK	SK
	6	ST	ST	ST	T	T	T
6	1	T	T	T	T	T	T
	2	T	T	T	T	T	T
	3	TH	TH	TH	V	V	V
	4	X	X	X	X	X	X
	5	X	X	X	X	X	X
	6	X	X	X	X	X	X

Sample Gurvin Word

To generate a Gurvin word, a roll of 1D6 for the number of syllables is made, result of 2.

For the first syllable, the red die is 5 and the white die is 6, meaning construction CVC is used from the BASIC table. Since the first syllable ends with a consonant, the ALTERNATE table is consulted for a red die of 2 and a white die of 1, meaning construction CV.

Consulting the letter tables for the first syllable, CVC , a die throw of 2, followed by a red die of 1 and white die of 3 produces the letter "G" from the INITIAL CONSONANT table. For the VOWEL, a die throw of 6, followed by a red die of 5 and a white die of 5 produces the letters "UA". Since the VOWEL is a doublet, no extra die throw is made. For the FINAL CONSONANT, a die throw of 5, followed by a red die of 6 and a white die of 6 produces the letter "T". The first syllable is "GUAT".

For the last syllable, CV, the INITIAL CONSONANT table is consulted with a die throw of 4, followed by a red die of 4 and a white die of 1 produces the letter "N". Finally, the VOWEL table is consulted with a die throw of 3, followed by a red die of 2 and a white die of 4 producing the letter "E". Since we have a single letter VOWEL, we roll an additional die to check for a doublet. We roll a 1 meaning we should roll for an additional VOWEL from the table. A die throw of 6, followed by a red die of 6 and a white die of 5 produces a single letter VOWEL "Y", which we add to our syllable. The second syllable is "NEY".

Combining the two syllables, we have the Gurvin word "GUATNEY" meaning chaos, in the philosophical sense.

Editor's note: Leroy's excellent TrWords program is now also available from Grant Sinclair (Data Coordinator). Send him a disk as usual if you want a copy. The program runs only on IBM PCs.

Gurvin Words:

Kextotaastrap	Uxiex	Fi
Kakivuloock	Eskemolafmenin	Muarkat
Istolkaxaorn	Bliartran	Icbletralroox
Fe	Urlasknauraskua	Slaarayrag
Gluatinoex	Ansrask	Irpakdarniriana
Nophuaftroranuck	Paniakafikeurn	Kua
Wreldqarniiph	Remulanof	Phliqaglaan
Gaun	Nudeenadkeundin	Drua
Maphlacimoor	Liagniptalonspo	Ent
Klinphlarzircan	Oecodocorlan	Nutnaskookein
Enathmartuntraar	Raarkaguf	Imlack
Bla	Etoox	Kal
Klooniyskala	Blapir	Inpehfonfankaaq
Phlankarepoec	Haaralda	Kablask
Upakuarkeneg	Oom	Blawa
Sloocki	Uattot	Ldybler
Oir	An	

CHALLENGE NEWS

The following is from a letter recently sent from Michelle Sturgeon, Editor of Challenge magazine to all current Challenge authors.

"It's no secret that the gaming marketplace is changing in a big way. We at GDW have had to take some hard looks at what we do and how we do it, and we're making some changes to ensure that we survive. Most of these changes are internal, but one of them affects you.

Effective with issue 77, we will no longer be able to pay for articles published in Challenge magazine. For articles published prior to issue 77, payment will be made based upon the acceptance terms in as timely a manner as possible.

Articles published starting with issue 77 will be published on a first American publication rights basis. This means that after publication, all rights revert to you (the author) instead of staying with GDW as they currently do. (Obviously, any material in the article which was originally GDW's material, such as rules, charts, characters, etc., remains GDW's)"

Now for some personal comments from Loren Wiseman.

First, my suspicion has always been that Challenge authors do not write articles because of the money, but for other reasons, and I do not anticipate that we will see any great reduction in the quantity or quality of articles contained in the magazine. We certainly hope to resume payment for articles at some time in the future, but at the present time, we cannot state when this will happen.

Second, this announcement is certain to start another batch of "GDW is about to fold" rumours... it seems every time we do anything rumours start flying. I would appreciate it if anyone who runs into such a rumour will do me the favour of saying it isn't true.

This announcement is not evidence that we are about to go out of business. If anything, it should be taken as evidence that we are taking steps to stay in business. If anything, it ahould be taken as evidence that we are taking steps to stay in business. Personally, I will do whatever it takes to see that GDW continues.

Loren K. Wiseman, GDW, Inc.

YIKLERZDANZH STATE LOGOS

The following are the logos for the remaining states in Yiklerzdanzh sector (see previous *Starburst* for the initial set). At this stage, we will not be doing one for the Salinaikin Concordance, since that state is based in Far Frontiers sector and therefore the responsibility of that analyst.

S'raak Empire   Forday's Fortune

Date: Sun, 9 Oct 94 23:22:09 -0500
From: bonn0015@gold.tc.umn.edu (Steve Bonneville)

Weird...I had this all set to go, and then when I read my back messages, saw that the economic discussion had started again....

When I saw the colony rules in the new _World Tamer's Handbook_, I wanted to see how far I could stretch them to get some interesting results. This is my first experiment: using the population totals published by DGP, I've used the rules to model the economy of the Third Imperium. The suprising thing was, it seemed to work out pretty well. Judge for yourself!

```
TCr 1  --  one teracredit (one trillion credits)
       --  one million MCr
       --  Cr 1,000,000,000,000.
```

The Third Imperium:

TOTAL POPULATION: 15.77 trillion

```
Agriculture: 1.52 trillion              9.6 %
Resources:   2.06 trillion             13.1 %
Industry:   11.56 trillion             73.3 %
Military:    0.63 trillion              4.0 %
```

Annual Industrial Product: TCr 538000
(Does not include value of raw materials or rations.)

```
Resource use:        20.3  quadrillion tonnes yearly
                     14.2  quadrillion cubic meters yearly
                     1.01  quadrillion displacement-tons yearly
Power use:           34000 terawatts          (not including vehicles)
Capital Value:       TCr 694000         (Ag/Ind/Power/Resources only)
Housing Value:       TCr 474000         (300 cubic meters per person)
Depreciation:        TCr  44900 paid annually (Ind/Power/Housing only)
Cultivation:         1.52 trillion square kilometers
                     152  trillion hectares
                     376  trillion acres
Military Bases:      value:          TCr 8820
                    depreciation: TCr   423 yearly
Infrastructure:     -not computed, see below-
```

INDUSTRIAL composition:
```
  5.710 trillion heavy industry      49.4 %
  5.710 trillion construction        49.4 %
  0.135 trillion light industry       1.2 %
```
(Changes in these figures can affect resource needs, capital value, annual industrial product, and anything dependent on them. This is where the Imperial free market reigns. The above proportions were chosen as rough compromise figures. See below.)

MILITARY composition:
```
  472.8   billion civilian dependents and auxiliaries
   2.52   billion wet navy                           1.6 %
   9.46   billion near-space forces                  6.0 %
   0.126  billion navy                               0.08 %
  145.5   billion ground forces                     92.3 %

  Space units:     42000 major, 126000 minor
  Ground units:    7.3 million divisions
  COAC units:      47.3 million batteries/aircraft
  Wet Navy units: 840000 major, 2520000 minor
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*** ASSUMPTIONS, OMISSIONS, AND DISCUSSION ***

For this analysis, I treated the Third Imperium as if it were, on average, TL12. (In MegaTraveller, "Avg Stellar".) I think this is a more accurate reflection of the Imperium than assuming TL15, since so many HiPop worlds are not TL15.

There are no net imports/exports of rations or raw materials.
SN = 2.5 (arbitrary). Six-month growing seasons were assumed; no modifiers used; half of agricultural production is always idle.
SS = 300 cubic meters (arbitrary).
SL = Cr 3500 (TL12).

All power is considered to come from TL12 fusion plants.

No excess labor or excess capital was used for any calculation.

Once the population needed to support a TL12 standard of living and the military were removed from the work force, the remainder were assigned to heavy industry/construction and supporting resource production.

Transportation infrastructure value was not computed for either civilian transport of goods or military supply. The need for gravitic freighters and 100000 disp-ton bulk haulers is tremendous.

As an aside, a merchant fleet of 20 million "Common Imperial Transports" from _Rebellion Sourcebook_ would carry over 200 billion displacement- tons of cargo, be worth TCr 70000, and using WTH cost TCr 3400 every year for maintenance and depreciation. Even scaling this up suggests that most transport and production is in-system. Blaine Tukera and his brothers could easily have been quadrillionares, before the Rebellion! (That's million-billionare!) And then there are the megacorporations that are heavily in banking and lending like Hortalez et Cie, which could be even more intimidating.

The troops in the military were divided up according to _Path of Tears_, as if the Imperium were a HiPop world. The force in the space navy was doubled to reflect a greater interstellar focus and account for the IISS and Planetary Navies. The figures above include *all* Imperial and local forces in the Imperium. Military capital was purchased at TL12, reflecting the majority of local planetary armies; TL15 would increase all values by x1.5. No allowance was made for equipment purchases or the resource needs; somebody else want to try that?

Naval equipment value can be estimated. _Rebellion Sourcebook_ agrees well with the above and suggests the following rough calculations:

> IN + Subsector Reserves == 640 fleets of about 5 squadrons each. Assume each squadron is worth
> almost TCr 1. Then the aggregate force is worth roughly TCr 3000. They have a total of about 1000
> major ships in each of about 22 sectors, so double this to include the IISS and Planetary Navies, and we
> get about TCr 6000 total value. Roughly TCr 300 must be paid yearly on depreciation and repairs,
> according to _World Tamer's Handbook_. Supply adds more costs.

Each HiPop world's share of the navies would be about TCr 5. This is actually quite close to the figures in _Trillion Credit Squadron_! This estimate needs more testing. Supply ships are not included -- they are covered in the military infrastructure computation which I didn't try to do. Each HiPop world's share of the ground force is about 6500 divisions.

The ag info should be taken with a grain of salt. I tested the ag model on the Earth at TL8 to find a carrying capacity at nutrition of 1.0 assuming all land hexes were of richness 1.0 and could be 100% farmed -- an unrealistically high assumption. I could only feed 2.6 billion people with *all* land hexes in farm production. (Six-month growing season; no other environmental effects included.) This has to be off by at least a factor of four, more likely a factor of ten or more; does anyone know what the current estimates for human carrying capacity on Earth are? Or other relevant information? This appears to be a major bug in the colony econ rules.

Also, under the rules, using ag products as resources is a losing proposition at almost all tech levels, so I didn't do it. TL12 ag production also uses more raw materials than TL8 ag production, even after land and yield are taken into account, which may or may not be plausible.

There should be a provision for a recycling program, though. In 1100 years, assuming population is steady and tech level stays at 12, the Imperium uses up enough raw materials to fill the entire volume of the Moon. (UWP size-2 world.) According to WTH, it gets *worse* at higher tech levels. I wonder where all that raw material is going?

Finally, lets bring TNE into this. The Regency has a total population of somewhere around 900 billion to 1 trillion. So if you divide the calculations for the Third Imperium by 16, you should have a rough estimate of the economy of the Regency.