

Frontier

COLLABORATORS

	<i>TITLE :</i> Frontier		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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REVISION HISTORY

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Chapter 1

Frontier

1.1 The Frontier Player's Guide - by Stone-D

Frontier Player's Guide - Version 2.0

The following chapters are available :

Copyright Message	Combat
Piracy Note	The Military
Foreign Users	Crime
Game Credits	Scooping
Introduction	Spicin' it up
Getting Started	Q & A's
The Terminal	Unsolved..
Ship Information	The Author

Christoph Tietz

This Document by Laga M Hale (Stone-D) © 1994

FULL VERSION - This is GIFTWARE

1.2 Dire Copyright message

Copyright Warning

- o Amigaguide is copyrighted to Commodore-Amiga Inc. © 1985 - 1994
 - o All changes to this file may only be performed by the author.
 - o This file may be copied and spread at will for individual use.
 - o This file may NOT be included in a collection other than Aminet.
 - o No profit may be made from this without written permission.
 - o The file contents should be safe to act upon, but nonetheless :
THE AUTHOR REFUSES TO ACCEPT ANY RESPONSIBILITY FOR ANY DAMAGE TO HARDWARE
OR DATA LOST AFTER ACTING UPON THE DIRECTIONS CONTAINED WITHIN THIS FILE.
 - o Remember, Frontier is a copyrighted publication - Go to Credits screen
 - o Remember, this program is GIFTWARE .
-

1.3 Introduction

Introduction

If you haven't already done so, please refer to the section on [GIFTWARE](#) .

Feeling frustrated with the century's greatest computer simulation? Are you a little bored with doing endless trading runs? Are you a diehard Elite veteran looking for something different to do? Have you actually bought the game yet?

This is an Amigaguide hypertext database overflowing with facts, hints, and anything else I could think of which had any relevance to Frontier: Elite II and acts as a reference work for those Frontier addicts out there.

Also, remember that Frontier and associated documentation is Copyright .

To upgrade your database to the current version, look in the [Aminet](#), or go to the [UPDATE](#) section.

Click [HERE](#) if you are at all interested in the Physics behind the game.

1.4 The Terminal

* - Access to this screen is required before any financial transactions, contracts, or repairs etc. may be initiated or completed.

Select relevant section :

- Launch Request
- Shipyard
- Bulletin Board
- StockMarket

1.5 The Shipyard

The shipyard is where all activity to do with your ship is performed. Remember - availability of select items depend on the population, and allegiance of the system in which you are in. For example, in Sol, you can fit anything your heart desires. In Achenar, you can buy all things non-navy related - Navy ECMs, Military drives, and Energy Bombs etc. may not be purchased in the Imperium as they are for the Federation only.

Select required section :

- Upgrades
- Repairs and Servicing
- New and Reconditioned Ships
- Contacting Local Police

1.6 Questions and Answers

The following is a list of problems encountered by various persons presented in the form of a question and answer session :

Q: How do I proceed to the next rank?

Q: How do I get out really far quickly?

A: Apparently, there is a 'bug' called 'Short Wormhole' which enables you to do just this. What you do, is scroll the system map out far - thousands of light years. Soon, the message 'Out of Range' will change to 'Fuel Required: [n]t', where [n] is the fuel in tonnes. Try it, and tell me if it works in your copy - my updated version does not allow this, but it might in yours.

Q: How do I zoom FAST in the system map ?

A: Center the planet or space station and double-click on the Zoom icon.

Q: How can I reach my destination faster once I am in the system ?

A: Use the autopilot to turn you towards the destination. Switch to highest speed. Now turn the autopilot off and accelerate by hand (using the "Engines Off"-state) until you have reached about 20.000 km/s or about 1AU distance to the target. At about 1AU distance to target (or earlier) switch on the autopilot and you will be there. You use up less fuel this way also.

Q: When I use the autopilot to take me to the vicinity of a certain planet, the end-speed is too high. I always crash into to planet.

A: Note that your main engines are more powerful then the retros. If you need a fast stop, turn your ship around and use the main engines to slow down, or manually switch back to manual (and normal time) before the autopilot arrives. Now point the craft at the horizon (edge) of the destination planet, reduce set speed to zero, and accelerate time X3 or X4. Just keep the craft pointing away from the surface, and all should be well.

Q: How do I fit a different hyperdrive to an imperial ship?

A: Simple. Kit up your ship with the bare minimum (I'll explain why in a minute) required to survive a fight, and fill up your ship with fuel. Now just hyperspace back and forward between relatively safe systems, trying to stay near one which sells the hyperdrive you want. Do this for a year without maintaining your drive, and with luck and very little real time, your drive will crumble due to lack of maintainance. Now autopilot to the nearest spacestation, sell the rubbish, and get yourself a drive and whatever accessories you wish. The fact you freed up cargo space by not packing too much equipment meant you could have more fuel, reducing the number of refueling trips required.

Q: What are the consequences of failing a military mission?

A: I think that the number of successful missions you have carried out will be reduced by one - ie. you get promoted to Lord, and you fail your first mission

as a Lord, you will be demoted.

Q: How do I get a camera ?

A: If you have solved several military missions, you will be offered Espionage missions where you have to photograph a secret installation. Very dangerous! Hot tip : When doing these missions, just fly in straight over the planet's horizon to get as close as possible before they notice you. When they do, DO NOT VEER FROM THE COURSE AND ATTACK THEM. The chances are you would only crash instead. So, wait until you are close to the base and lots of dots are clustered in your scanner. Now whack them with the energy bomb.

Q: How do I get permits for a system?

A: You must get a civilian contract to them someone or a package to the system in question. Now ask them for the permit. Remember, only wait for such a contract to turn up in a system nearby to the one requiring the permit.

Q: When I start Frontier from CLI, it hangs after some time.

A: Frontier needs a large stack. Just type in Stack 65600 followed by Frontier (providing you are in the correct directory).

It might be just my imagination, but my copy seems to run a tad faster with a large stack - say, 100000. Try it!!

Q: How much should I pay to the crew ?

A: That depends. If you are trading, you will make so much money in your trip that the crew wages will not matter one whit. However, if you are just flying around being a nuisance, pay as low as possible. Its up to you.

Q: Help me! The pirates are always whipping my ass!

A: Did you know that you can pause the game, target the pirate and fire a missile after him?

Unsolved Mysteries...

1.7 Questions I would like to have an answer to....

The following are questions I do not have an answer to. Some are probably impossible, but if someone writes in and informs me of the answers to any of them, I will update the database accordingly and give that individual credit within the file (so and give me your details).

Here goes :

Q: How do I clean my legal status ?

Q: How do I build in a fuel scoop into an imperial or big ship ?

Q: How do I explore unknown stellar systems ?

Q: What is / How do I get the Mirage?

Q: How do you get the Military Drive mark 4 and the Fighter Launch?
(Yes - the Fighter Launch DOES exist - but what or why or how???)

Q: Can you eventually get to own a Long Range Cruiser or Lynx Bulk Carrier?

Q: Is it possible to destroy Space Stations and / Ground Installations using Large Plasma Accelerator? If so, how long does it take?

Q: In the list of important dates in the gazetteer, there is mentioned the one alien artifact found orbiting somewhere - where is it and what is it? Is it the Mirage?

Q: Is it possible to quit out of Frontier back to WorkBench - or does it kill the operating system and take over?

Q: What happened to the other ships from the original - like the Fer de Lance. The snake itself is deadly beyond anything, the ship sounds a real treat!

Q: What the hell happened to the millions of other races mentioned in the 'Dark Wheel' (as I think it was called)?

Q: Are the PC and Amiga save-games compatible?

Q: Is there a cheat-mode?

Q: When you broadcast 'Help! my Engines have broken down!' or 'Help! I am under attack!', do you actually get any assistance, or is it just a pirate beacon?

1.8 Notice to Non-English language users

Notice to Non-English Language Users

I apologize, but versions of this file in German, French, Spanish, etc. are unlikely to be forthcoming as I do not know any other language other than Indonesian (even then not very well). However, If there is someone out there who is willing to perform a translation, please do so, but please get in touch with me first. Thank you.

1.9 Frontier Credits

Frontier Credits

Design, Program, 3D Graphics, Sound Effects : David Braben
Bitmap Graphics : Paul Mitchell

Music : Dave Lowe
Michael Powell

For further details concerning Frontier : Elite II, write to :

GameTek UK
5 Bath Road
Slough
Berks
SL1 3UA

Tel: 0753 553445

Remember - this database is GIFTWARE .

1.10 How to receive an Update file

Updating your Copy

Have you sent me a GIFT yet?

To obtain the latest update, please send a cheque for £2.50 payable to Laga M Hale and the original program disk to :

Laga M Hale
13 Broomyknowe
Edinburgh
SCOTLAND
EH14 1JZ

Remember to give me an address!!

Please, all correspondence in English.

Allow 28 days for delivery.

Thank you.

1.11 Combat Section

Weapons and the Art of War

Select a section :

Small Targets
Big Targets
Ship Information

1.12 Mosquito bit my But...

Most of the time, for the more experienced, combat is tedious, and gets in the way. Usually when you are trying to get somewhere fast, you tend to be dogged by clouds of Hawks, Ospreys, and Falcons. This is downright depressing and almost forces you to stop playing. What follows are my usual tactic for nailing these suckers.

For Craft with no Turrets

For Craft equipped with Turrets

1.13 No Turrets!!!

Got No Turrets!!

Activate icon F10 (switch names on). Goto manual and get the enemy ship on screen. Pause the game with <Esc> and target the ship by clicking on it. Switch on autopilot. Now either release a missile or resume normal time. If no missile is released, engage Autopilot. The autopilot should now be attempting to align your weapon vector with the target. Proceed to kill the enemy.

1.14 turret

Joy! I've got Turrets!!

You can make your craft act like a turret by switching the engines off. This makes targetting alot easier, but makes you a sitting duck. Be careful.

Do not disengage autopilot. Switch to turret view and activate names (icon F10). Find him and shoot him lots. The problem with this method is you may not release a missile after him, but finding, and shooting the target is a hell of a lot easier. Believe me.

1.15 Please don't

An Urgent Plea

Dear Frontier users,

Are you playing with an illegal copy of Frontier? If so, why? I mean, sure, you don't get the bugging copy protection system, but you miss out on alot more. The number of times I have read the Manual, the Gazetteer, and Stories of Life on the Frontier is phenomenal. They all contain information which is both crucial to gameplay, and very interesting also.

Look - the price of Frontier in the shops has dropped to approximately £15. For that measly sum, you get original virus-free disks,

a nice box, a map (veeeeery useful, believe me), and three books.

Remember - the poor guy took FIVE YEARS to make this game.

1.16 Military Missions

Military Missions

Military missions (in my opinion) are probably the most rewarding and satisfying facets of Frontier. Okay, they are boring at first, but when your rank permits you to do dangerous assassinations, espionage, etc. The thrill is unbelievable. What follows - separated into the relevant sections - are the tactics which I employ to perform these missions.

Choose which section :

	Messenger runs
Assassinations	
Spy	
Nuke Missions	
	Disaster Aid

1.17 About the Author

About the Author

Name : Laga M Hale (Alias Stone-D on the IRC)
E-Mail : Try lmhale@freenet.hut.fi also contact me on #amiga IRC.
Age : 18 Years

Computer Set-up :

- o Commodore Amiga A1200
- o 2MB Chip RAM ; 0MB Fast RAM
- o 120MB Maxtor internal IDE Hard Drive, split into 4 partitions
- o StereoMaster Sound Sampler
- o Canon BJ-10sx
- o Sony Trinitron TV/Monitor (Connected via SCART)

I have owned my A1200 for over a year now, as I purchased it from Indi Direct on 31 August 1993.

What am I doing now? Well, I am half-way through my first year at Napier University in Edinburgh, studying for a degree in BEng (Hons) Software Engineering. I have decided also to elective courses on Psychology and a course explaining Computer Viruses, which explains how they work, and how best to combat them (they're right little buggers aren't they?).

This is actually my first attempt at creating an Amigaguide database - it is amazing how simple it is!!! Once I started I just tore away at it.

Watch out for more Stone-D productions!!

Well, that's me, yell if you want to know more.

My holy address :

```
Laga M Hale <---Do NOT put Stone-D here!!  
    13 Broomyknowe  
Edinburgh  
SCOTLAND  
EH14 1JZ
```

Please - send me some GIFTWARE !

Please also go to the Hello section and have a look.

If you want a word, I try to connect to the #amiga IRC server as often as is sanely possible.

1.18 Let's do Launch

All Things Launchy

There is not alot which can be said concerning this section. To leave a spacestation you must use this option - illegal take-off on a spacestation is not possible, and the same goes for spaceports on a planet without a breathable atmosphere, as both work via an airlock system.

However, when you are docked on a breathable planet (ie. you land outside) you can cause bloody mischief by doing an illegal take-off. This option is particularly useful when lying in wait for the victim of an assassination contract. However, when you do commit an Illegal Take-Off, the Police will be all over your ass quicker than you can blink. So the target must be neutralized fast, so you can get out of there fast.

Remember - try not to commit any crimes in the territory of the government you are working for - ie. if you work for the Imperium, commit crimes in Interpol territory or in the Federation. NOT the Imperium. This will make jobs less forthcoming.

1.19 Let's Get You Started

Getting Started

I assume by now you have chosen your starting position, and actually started. Now what? Well, not much apart from about a week of solid Trading .

Basically, in the beginning, it's all a matter of money. First get the money, then have the fun.

Once you have in your pocket a healthy seven-figure sum (don't feel daunted - it does not take as long as it sounds) you can stop that messing around and

get down to some serious mercenary work. The best thing to do, is to start carrying civilian contracts. The more you successfully complete, the better your reputation. The better your reputation, the better the jobs which come your way. Once your reputation is high, go to Military missions. Stick to one allegiance, as the Military of either side get annoyed when you start working for the other side. And no, defecting does NOT help you at all with work for the enemy. Instead, it makes them suspicious, and it takes AGES to get promoted.

1.20 Contacting the Police

@B}Dealing with the Local Cop-Shop

You've gotta be real careful here. If you attempt to bribe them, your fine increases and 'Attempted Bribery' shows up in your Police Record. If you try to deny the allegation, your fine increases dramatically but no further infringement of the Law crops up on your record.

As a rule of thumb, when attempting to bribe a cop, always go for the full 250 credits. No matter what the crime, this is always cheaper than paying up. But, if the fine is relatively small (ie. less than 10,000 credits) and you want as clean a record as possible, just cough up or reload.

Remember - if docked, pay up before midnight or before attempting to gain Launch clearance or you get arrested. Fines can be evaded by performing an illegal take-off.

For more information regarding the Law, see the section on Crime.

1.21 The Criminal Acts

Crime in Frontier

Several Frontier-fans I know (me being one of them) enjoy 'collecting' crimes - ie. they like committing crimes just so that they can fill in their record sheet as full as possible. Because this can have a deterrent effect on civilians asking for a job or looking for someone to hire, they tend to carry out these deeds in one particular territory - ie. Interpol, Federation, or Imperium. Try it - it sure is fun!

So what is defined as a Criminal Act ?

- Unlawful Dumping
- Failure to Obey Traffic Control
- Piracy and Murder
- Illegal Mining
- Permit Violation
- Unlawful Discharge of Weapon
- Attempted Bribery
- Launching without Clearance
- Smuggling Illegal Goods
- Trading in Illegal Goods

1.22 The Bulletin Board

The Bulletin Board

This section focuses upon the different adverts displayed by the public upon the bulletin board.

Select Topic :

Jobs Wanted
Small Package
Passengers
Charities
Goods Bought and Sold
Federal / Imperial Military

1.23 Adverts for Jobs

Job Adverts

People are constantly having difficulties with hiring crew members.

Question: Is there any way to get more crew quicker?

Answer : No. There is no backdoor (that I know of), but I do have a tip which may be of help for those with cash to spare.

Let's say you start with a Cobra MKIII. You want to have a kick-ass Panther Clipper with all the bells and whistles attached. So to get 12 crew members, this is what you do.

- 1 - Buy a ship which needs maybe three crewmembers.
- 2 - Get the crew for it.
- 3 - Kit out the ship with the bare minimum.
- 4 - Hyperspace to a fairly decently populated system.
- 5 - Buy a slightly bigger ship.
- 6 - Perform steps 2 to 5 until you get your Panther Clipper. Follow me?

Other than that, you'll have to wait a hell of a long time for the crew you will need.

Warning : When you fire crew members, rehiring crew will take slightly longer with each crew member fired.

1.24 Taking a small Package

Taking a small Package

Taking packages to places for civilians is hardly worth the trip really. The only times it is, is if you are heading there anyway, and if the item in question is dodgy. By dodgy I mean military battle plans and the likes - basically a mission for which the civilian is willing to pay top dollar for.

Why? Because A) - Lots of money for bugger all. B) - Get a good reputation. C) - Gain credibility with the military force NOT being spied upon. But be careful - do not undertake such missions if it involves smuggling plans developed by the guys you work for. I should not need to explain further.

1.25 Taking Passengers

Ferrying Passengers

This all depends on whether you have the space and whether you can be bothered. The same applies here as with taking packages - only take highly paid jobs - all the others are not worth it.

Passengers tend to want to be taken in single, small, or just plain group sizes :

- o Single - well, one person ain't it.
- o Small Group - 3 to 5 persons.
- o Large Group - 7 people.

Remember :

Each person will require an individual cabin. One cabin takes up 5 tonnes.

If after a month the passenger group has still not reached their destination, they will go mad, demand to be taken to the nearest star-port, and spread hateful rumours about you - hence your reputation goes down.

When Ejecting from your ship, all passengers are left behind to die in the cold wastes of deep space (and your crew).

1.26 Donating to Charities

Charities

These adverts serve no purpose other than disposing of useless cash, and boosting your commander's reputation. As a result of handing over MAJOR donations, penalties acquired from late or badly done missions are quickly recovered. But remember - this only really works with large donations.

1.27 Smuggling Run

Trading Illegally

You'd better watch out here. Trading here is a criminal activity, and can be punishable with a fine of 2500 credits. Although not alot, it does show up on your record sheet, and detracts from your reputation (I think). To avoid the Police traps is very difficult, unless you are a regular customer at that

particular station. Basically, try to avoid shopkeepers with any blue in their features (earrings, shades, clothes, skin, etc.) and you just might get away with it. That's all I can give you I'm afraid.

1.28 Unlawful Dumping

It is illegal to jettison any items from the ship's hold anywhere in the Galaxy.

You can get away with it though by dumping at least 2AU away from the nearest populated planet or starbase.

Dumping cargo whilst hovering over one's opponent is exceptionally damaging to the opponent's health. Good way of getting rid of radioactives.

1.29 Failure to Obey Traffic Control

It is illegal to disobey the direct command of Traffic Control. Persistent violation will result in increasingly heavy fines.

You can't get away with this one.

You usually get this one slapped on you when you are attempting a manual landing and you go to the wrong pad - ie. bay 3 instead of 6, and when you take off illegally when attempting an assassination.

1.30 Piracy and Murder

It is illegal to commit acts of piracy upon another vessel. The destruction of another vessel by your ship or your ship's weapons is punishable by a 10000 credit fine.

You can get away with this when at least 0.5AU from any populated planets or starbase - I am not sure though if self-defence is counted also under this heading.

1.31 Illegal Mining

Setting up an MB4 Mining Rig upon a populated or protected planet is illegal. Expect Police intervention, hot lazer death and a heavy fine.

I know that this type of mining is a bit of a bugger, but it is pointless attempting it in a populated SYSTEM never mind a populated PLANET. You only get minerals and water this way.

1.32 Permit Violation

It is illegal to enter a prohibited system without the required permit. Such a permit may be acquired only by doing business with a member of the public which involves that system (not assassinations).

Refer to the Manual and the section on Questions and Answers for more info.

1.33 Unlawful Discharge of Weapon

It is illegal to discharge any form of weapons, whether energetic, missiles, or mines, within an area which includes a high population (ie.Orbital City, Spaceport, etc.).

If you do this, expect lots of police ships to smear themselves around you. This is depressing, annoying, and quite amusing.

1.34 Attempted Bribery

See also Contacting Local Police.

Bribery is a serious crime in the eyes of the Law - although occasionally successful.

In my opinion - a worthwhile pursuit.

1.35 Launching without Clearance

See also Launch Request.

This is illegal and punishable by heavy fines - although the cops usually skip that part and straight to the death penalty. Well, they try anyway.

1.36 Smuggling Illegal Goods

It is a criminal offense to attempt to import goods into a system which regards the goods in question as illegal.

I discovered that this includes shipyard upgrades - once I stopped off at Van Maanens star - a religious commune, and requires a permit - to drop off a passenger, and they destroyed my Hyperspace Cloud Analyser, and fined me twice - for smuggling illegal items, and piracy and murder.

It does not matter what you were there for, they bust you anyway.

1.37 Trading in Illegal Goods

It is illegal to attempt to trade illegal goods upon the station bulletin board in any manner whatsoever.

You do realise don't you, that they set police traps in the form of bogus dealers?

See also the section on Goods bought and Sold for more information.

1.38 That's one big Mutha

How do you Kill a Large Target?

That all depends. If the object of your anger happens to be a Long Range Cruiser, or a Lynx Bulk Carrier, all you need to have is time on your hands. Either of them will not attempt to fight back or move out of the way - a bit pointless really.

However, if you want to nail something like a Panther or a Python, life is a lot trickier. If you only have a 1MW Beam laser or less, forget it. These suckers tend to be crawling with shields so anything smaller than a 4MW Beam laser won't do diddly.

If your ship isn't packing anything which will take it out in a couple of zaps, you have to be careful. Firstly, you have to avoid being rammed by the sucker. Secondly, you've got to evade it's laser. And thirdly, they tend to have an Energy Bomb on board - so if you're in a small ship, watch out!

The tactic I use in these situations is to head AWAY from the enemy until I am approximately six kilometres from him. Then I turn round and whack on the autopilot, which now has time to centre the weapon target. I repeat this trick several times, slowly whittling down his defences.

Basically, play chicken with the sucker - Imperial Couriers just seem to love this for some reason, so watch out when you meet one.

You should use this with anything bigger than an Imp Courier.

If none of the above suits you, get yourself a Large Plasma Accelerator and a kick-ass Panther.

1.39 That Crafty Bugger

Ship Information

Click Ship name for detailed information :

Adder	Lifter
Anaconda	Lion
Asp Explorer	Moray Starboat
Boa Freighter	Osprey

Cobra MK I	Panther Clipper
Cobra MK III	Puma Shuttle
Constrictor	Python Freighter
Eagle Long Range Fighter MK I	Sidewinder
Eagle Long Range Fighter MK II	Tiger Trader
Eagle Long Range Fighter MK III	Transporter
Falcon Attack Fighter	Viper Defence Craft
Gecko	Kestrel Airfighter
Imperial Courier	Hawk Airfighter
Imperial Trader	Lynx Bulk Carrier
Interplanetary Shuttle	Long Range Cruiser
Krait	Mirage

1.40 adder

Name :Adder
Mass (Fully Laden) :55
Internal Capacity (No Drive) :40
Gun Mountings :1
Missile Pylons :0
Crew :1
Main Acceleration (Earth g) :18.1
Retro Acceleration (Earth g) :8.0
Drive Fitted as Standard :Class 2
Allegiance :Independent, Federation

Class	Range
1	3.63
2	14.54
3	32.72
4	0.00
5	0.00
6	0.00
7	0.00

1.41 anaconda

Name :Anaconda
Mass (Fully Laden) :800
Internal Capacity (No Drive) :650
Gun Mountings :2
Missile Pylons :8
Crew :8
Main Acceleration (Earth g) :6.0
Retro Acceleration (Earth g) :3.0
Drive Fitted as Standard :Class 6
Allegiance :Independent

Class	Range
1	0.00
2	0.00
3	0.00

4	4.00
5	6.25
6	9.00
7	12.25

1.42 asp

Name :Asp Explorer
Mass (Fully Laden) :150
Internal Capacity (No Drive) :120
Gun Mountings :2
Missile Pylons :1
Crew :2
Main Acceleration (Earth g) :22.2
Retro Acceleration (Earth g) :7.0
Drive Fitted as Standard :Class 3
Allegiance :Independent, Federation

Class	Range
1	0.00
2	5.33
3	12.00
4	21.33
5	0.00
6	0.00
7	0.00

1.43 boa

Name :Boa Freighter
Mass (Fully Laden) :1500
Internal Capacity (No Drive) :1300
Gun Mountings :4
Missile Pylons :6
Crew :10
Main Acceleration (Earth g) :8.0
Retro Acceleration (Earth g) :4.0
Drive Fitted as Standard :Class 8
Allegiance :Independent

Class	Range
1	0.00
2	0.00
3	0.00
4	0.00
5	3.33
6	4.80
7	6.53

1.44 cobrai

Name :Cobra MK I
Mass (Fully Laden) :75
Internal Capacity (No Drive) :60
Gun Mountings :2
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :16.1
Retro Acceleration (Earth g) :6.0
Drive Fitted as Standard :Class 2
Allegiance :Independent, Federation

Class	Range
1	0.00
2	10.66
3	24.00
4	0.00
5	0.00
6	0.00
7	0.00

1.45 cobraiii

Name :Cobra MK III
Mass (Fully Laden) :100
Internal Capacity (No Drive) :80
Gun Mountings :2
Missile Pylons :4
Crew :1
Main Acceleration (Earth g) :20.1
Retro Acceleration (Earth g) :7.0
Drive Fitted as Standard :Class 2
Allegiance :Independent, Federation

Class	Range
1	0.00
2	8.00
3	18.00
4	0.00
5	0.00
6	0.00
7	0.00

1.46 constrictor

Name :Constrictor
Mass (Fully Laden) :120t
Internal Capacity (No Drive) :90t
Gun Mountings :2
Missile Pylons :2
Crew :2
Main Acceleration (Earth g) :22.2

Retro Acceleration (Earth g) :10.0
Drive Fitted as Standard :Class 2
Allegiance :Independent, Federation

Class	Range
1	6.66
2	15.00
3	26.66
4	0.00
5	0.00
6	0.00
7	0.00

1.47 eaglei

Name :Eagle Long Range Fighter MK I
Mass (Fully Laden) :25
Internal Capacity (No Drive) :20
Gun Mountings :1
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :25.2
Retro Acceleration (Earth g) :10.0
Drive Fitted as Standard :Class 1
Allegiance :Federation, Empire

Class	Range
1	8.00
2	32.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.48 eagleii

Name :Eagle Long Range Fighter MK II
Mass (Fully Laden) :28
Internal Capacity (No Drive) :22
Gun Mountings :1
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :28.2
Retro Acceleration (Earth g) :4.0
Drive Fitted as Standard :Class 1
Allegiance :Federation

Class	Range
1	7.14
2	28.57
3	0.00

4	0.00
5	0.00
6	0.00
7	0.00

1.49 eagleiii

Name :Eagle Long Range Fighter MK III
Mass (Fully Laden) :30
Internal Capacity (No Drive) :22
Gun Mountings :1
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :28.2
Retro Acceleration (Earth g) :15.1
Drive Fitted as Standard :Class 1
Allegiance :Empire

Class	Range
1	6.66
2	26.66
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.50 falcon

Name :Falcon Attack Fighter
Mass (Fully Laden) :16
Internal Capacity (No Drive) :11
Gun Mountings :1
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :30
Retro Acceleration (Earth g) :9
Drive Fitted as Standard :Class 1 Military Grade
Allegiance :Federation

Class	Range
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.51 gecko

Name :Gecko
Mass (Fully Laden) :45
Internal Capacity (No Drive) :34
Gun Mountings :2
Missile Pylons :1
Crew :1
Main Acceleration (Earth g) :16.1
Retro Acceleration (Earth g) :9.0
Drive Fitted as Standard :Class 2
Allegiance :Independent

Class	Range
1	4.44
2	17.77
3	40.00
4	0.00
5	0.00
6	0.00
7	0.00

1.52 courier

Name :Imperial Courier
Mass (Fully Laden) :480
Internal Capacity (No Drive) :350
Gun Mountings :1
Missile Pylons :6
Crew :3
Main Acceleration (Earth g) :16.1
Retro Acceleration (Earth g) :6.0
Drive Fitted as Standard :Class 5 (Integral)
Allegiance :Empire

Class	Range
1	0.00
2	0.00
3	3.75
4	6.66
5	10.41
6	15.00
7	0.00

1.53 trader

Name :Imperial Trader
Mass (Fully Laden) :700
Internal Capacity (No Drive) :525
Gun Mountings :1
Missile Pylons :6
Crew :6
Main Acceleration (Earth g) :9.0

Retro Acceleration (Earth g) :4.0
Drive Fitted as Standard :Class 6 (Integral)
Allegiance :Empire

Class	Range
1	0.00
2	0.00
3	0.00
4	4.57
5	7.14
6	10.28
7	14.00

1.54 shuttle

Name :Interplanetary Shuttle
Mass (Fully Laden) :8
Internal Capacity (No Drive) :4
Gun Mountings :0
Missile Pylons :0
Crew :1
Main Acceleration (Earth g) :5.0
Retro Acceleration (Earth g) :3.0
Drive Fitted as Standard :Interplanetary Drive
Allegiance :Independent, Federation, Empire

Class	Range
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.55 krait

Name :Krait Assault Craft
Mass (Fully Laden) :35
Internal Capacity (No Drive) :27
Gun Mountings :1
Missile Pylons :4
Crew :1
Main Acceleration (Earth g) :20.1
Retro Acceleration (Earth g) :10.0
Drive Fitted as Standard :Class 1
Allegiance :Independent

Class	Range
1	5.71
2	22.85
3	51.42

4	0.00
5	0.00
6	0.00
7	0.00

1.56 lifter

Name :Lifter
Mass (Fully Laden) :10
Internal Capacity (No Drive) :7
Gun Mountings :0
Missile Pylons :0
Crew :1
Main Acceleration (Earth g) :4.0
Retro Acceleration (Earth g) :2.0
Drive Fitted as Standard :Interplanetary Drive
Allegiance :Federation

Class	Range
1	20.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.57 lion

Name :Lion Transport
Mass (Fully Laden) :300
Internal Capacity (No Drive) :235
Gun Mountings :3
Missile Pylons :8
Crew :4
Main Acceleration (Earth g) :5.0
Retro Acceleration (Earth g) :3.0
Drive Fitted as Standard :Class 3
Allegiance :Federation

Class	Range
1	0.00
2	0.00
3	6.00
4	10.66
5	16.66
6	0.00
7	0.00

1.58 moray

Name :Moray Starboat
Mass (Fully Laden) :87
Internal Capacity (No Drive) :70
Gun Mountings :1
Missile Pylons :4
Crew :1
Main Acceleration (Earth g) :14.1
Retro Acceleration (Earth g) :6.0
Drive Fitted as Standard :Class 2
Allegiance :Independent, Federation

Class	Range
1	0.00
2	9.19
3	20.68
4	0.00
5	0.00
6	0.00
7	0.00

1.59 osprey

Name :Osprey
Mass (Fully Laden) :15
Internal Capacity (No Drive) :11
Gun Mountings :1
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :27
Retro Acceleration (Earth g) :8
Drive Fitted as Standard :Class 1
Allegiance :Empire

Class	Range
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.60 panther

Name :Panther Clipper
Mass (Fully Laden) :2500
Internal Capacity (No Drive) :2100
Gun Mountings :4
Missile Pylons :8
Crew :15
Main Acceleration (Earth g) :6

Retro Acceleration (Earth g) :3
Drive Fitted as Standard :Class 8
Allegiance :Federation

Class	Range
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.61 puma

Name :Puma Clipper
Mass (Fully Laden) :1000
Internal Capacity (No Drive) :825
Gun Mountings :4
Missile Pylons :8
Crew :9
Main Acceleration (Earth g) :6.0
Retro Acceleration (Earth g) :3.0
Drive Fitted as Standard :Class 6
Allegiance :Federation

Class	Range
1	0.00
2	0.00
3	0.00
4	3.20
5	5.00
6	7.20
7	9.80

1.62 python

Name :Python Freighter
Mass (Fully Laden) :500
Internal Capacity (No Drive) :400
Gun Mountings :2
Missile Pylons :4
Crew :7
Main Acceleration (Earth g) :10.0
Retro Acceleration (Earth g) :4.0
Drive Fitted as Standard :Class 4
Allegiance :Independent

Class	Range
1	0.00
2	0.00
3	3.60

4	6.40
5	10.00
6	14.40
7	0.00

1.63 sidewinder

Name :Sidewinder
Mass (Fully Laden) :33
Internal Capacity (No Drive) :25
Gun Mountings :1
Missile Pylons :0
Crew :1
Main Acceleration (Earth g) :23.2
Retro Acceleration (Earth g) :12.1
Drive Fitted as Standard :Class 1
Allegiance :Independent

Class	Range
1	6.06
2	24.24
3	54.54
4	0.00
5	0.00
6	0.00
7	0.00

1.64 tiger

Name :Tiger Trader
Mass (Fully Laden) :400
Internal Capacity (No Drive) :320
Gun Mountings :3
Missile Pylons :1
Crew :5
Main Acceleration (Earth g) :12.1
Retro Acceleration (Earth g) :5.0
Drive Fitted as Standard :Class 4
Allegiance :Federation

Class	Range
1	0.00
2	0.00
3	4.50
4	8.00
5	12.50
6	18.00
7	0.00

1.65 transporter

Name :Transporter
Mass (Fully Laden) :200
Internal Capacity (No Drive) :160
Gun Mountings :3
Missile Pylons :2
Crew :3
Main Acceleration (Earth g) :9.0
Retro Acceleration (Earth g) :4.0
Drive Fitted as Standard :Class 3
Allegiance :Independent, Federation

Class	Range
1	0.00
2	4.00
3	9.00
4	16.00
5	25.00
6	0.00
7	0.00

1.66 viper

Name :Viper Defence Craft
Mass (Fully Laden) :65
Internal Capacity (No Drive) :50
Gun Mountings :1
Missile Pylons :4
Crew :1
Main Acceleration (Earth g) :24.2
Retro Acceleration (Earth g) :10.0
Drive Fitted as Standard :Class 2
Allegiance :Independent, Federation, Empire

Class	Range
1	3.07
2	12.30
3	27.69
4	0.00
5	0.00
6	0.00
7	0.00

1.67 kestrel

Name :Kestrel Airfighter
Mass (Fully Laden) :20
Internal Capacity (No Drive) :9
Gun Mountings :1
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :25.2

Retro Acceleration (Earth g) :6.0
Drive Fitted as Standard :Class 1 Military Grade
Allegiance :Federation

Class	Range
1	10.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.68 hawk

Name :Hawk Airfighter
Mass (Fully Laden) :18
Internal Capacity (No Drive) :7
Gun Mountings :1
Missile Pylons :2
Crew :1
Main Acceleration (Earth g) :27.2
Retro Acceleration (Earth g) :6.0
Drive Fitted as Standard :Class 1 Military Grade
Allegiance :Federation

Class	Range
1	11.11
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.69 lynx

Name :Lynx Bulk Carrier
Mass (Fully Laden) :7200
Internal Capacity (No Drive) :6000
Gun Mountings :0
Missile Pylons :0
Crew :20
Main Acceleration (Earth g) :3.0
Retro Acceleration (Earth g) :1.0
Drive Fitted as Standard :Class 1
Allegiance :All - I think.

Class	Range
1	0.00
2	0.00
3	0.00

4	0.00
5	0.00
6	0.00
7	0.00

1.70 cruiser

Name :Long Range Cruiser
Mass (Fully Laden) :16000
Internal Capacity (No Drive) :15000
Gun Mountings :1
Missile Pylons :0
Crew :100
Main Acceleration (Earth g) :3.0
Retro Acceleration (Earth g) :1.0
Drive Fitted as Standard :1
Allegiance :Who knows?

Class	Range
1	0.00
2	0.00
3	0.00
4	0.00
5	0.00
6	0.00
7	0.00

1.71 mirage

Name :Mirage
Mass (Fully Laden) :???
Internal Capacity (No Drive) :???
Gun Mountings :???
Missile Pylons :???
Crew :???
Main Acceleration (Earth g) :???
Retro Acceleration (Earth g) :???
Drive Fitted as Standard :Class 4 Military Drive
Allegiance :Thargoid
Notes :This probably has the Fighter Launch!

Class	Range
1	0.00?
2	0.00?
3	0.00?
4	0.00?
5	0.00?
6	0.00?
7	0.00?

1.72 What a Scoop!

Please refer to the following subsections :

Fuel Scooping
Cargo Scooping

1.73 What is the Point?

The art of Cargo Scooping

In my holy opinion, this is worse than a waste of time. But just for you, here goes :

- o You must have a fuel scoop and a cargo scoop conversion (10t total).
- o Find the cargo you want to scoop.
- o Come to dead stop.
- o Slowly approach it at about, oh, let's say 200km/h until you are close.
- o Manouver the ship closer.
- o Manouver so that the object passes beneath the ship into the scoop.
- o What more can I say???

1.74 Fuel Scooping

The Art of Fuel Scooping

Fuel Scooping is really only worth it if you are skint, and if you are out near the Frontier - ie. nowhere near any populated systems. Fuel Scooping requires that your ship be equipped with a Fuel Scoop, which weighs six tonnes. Now, not all ships have a Fuel Scoop attachment. Apparently, the ship designers decided that the bigger the ship the more likely it is captured by the planet or sun you are trying to scoop. I don't know.

To fuel scoop, do the following :

- 1 : Once you've entered the system, target the autopilot for a nearby gas giant or sun. The smaller the target the better, as it means less gravity to contend with.
 - 2 : Wait for the autopilot to take you within the vicinity of the planet.
 - 3 : Set the Manual speed to approximately 130,???KMS, and aim the ship at about one centimetre (on screen! ;-D) below the planet's horizon.
 - 4 : Put time acceleration at X4. Time will revert to normal when the fuel
-

scoop starts working.

I have discovered that this tactic also works when scooping suns.

REMEMBER : ALWAYS SAVE BEFORE DOING ANYTHING DANGEROUS.

1.75 Repairing Your Craft

Do It Now!

As the manual says, you should do a full overhaul every year. Leave it too late, and a vital piece of equipment - ie. you drive - will die horribly leaving you with a greasy mess in your engine bay.

1.76 trading

Silly Trading Information

What can I tell you that you haven't discovered for yourself already? All you need is two systems that each want something from the other real bad and is willing to pay lots. And you need a big ship to get any real profit (ie. with a Panther Clipper you can make 2.5 million selling narcs on 1 trip).

1.77 upgrades

Some Info on Upgrades

Geez! What more can I say on upgrades that isn't in the manual? Oh, okay then.

Armaments :

In my opinion, anything solid which you fling out your ship in order to severely damage your opponent is pointlessly excessive tonnage unless it is a Navy or Nuclear Missile (which you can't use on other targets - boooo!). I don't know about you, but I have NEVER used mines or anything less than an LV111 Smart Missile. I find them pointlessly dull and boring to use.

Pulse lasers? Pardon? What is the point? Geez!

Others :

Do Not equip your ship with both ECM types. Just get the Navy Grade ECM and fix it regularly. The space is better off used for fuel.

Do not bother with a cargo scoop conversion - that is 4 tonnes of wasted space.

1.78 messenger

How to be a Military Messenger

This is the basic military mercenary mission type. All you have to do, is deliver a package to a certain destination, but by a set date.

Basically, get yourself a fast(ish) ship equipped with the bare minimum to stay alive, and find two adjacent systems which regularly send messages and packages to each other. This way, you may be able to take up to nine packages at once for the one destination.

1.79 Assassinations

Assassinations

You get a really smug sense of satisfaction when you successfully pull off an assassination - whether private or military. The satisfaction value really intensifies the closer your target is to Earth - it is unbelievably fun whacking a senator and his Panther when they are just leaving London!

Down to business. Assassinations may come under a number of specific headings. This depends on the location type of your target, and whether or not you are bothered by a criminal record and heavy fines. By heavy fines, I mean fines which are sometimes twice what you are being paid for the job. The types and methods are as follows :

The Sneaky Way

The Nasty Way

1.80 Sneaky and Safe

Safeway

This is undoubtedly the safest method, as you do not have to worry about the police. Basically, you have to wait for the target to take off, and hyperspace to their destination. Now you must analyze the cloud remnant and 'overtake' him whilst he is in hyperspace. You now must lie in wait until he 'pops out'. Now you can kill him at your leisure.

Problems:

- o Sometimes he doesn't hyperspace and just ambles along to a base in the same star system.

- o He can be devious and perform a mis-jump - to find out if he has done this, there will be no cloud for his ship at the destination near yours. Besides -

he's probably as good as dead anyway. But you gotta be sure anyhow.

- o He might possibly outrun you and escape that way.

1.81 Nasty and Dangerous

The 'Hit_Him_with_a_big_Gun' Method.

This is the best and most dangerous way to go about it. You must have a ship sufficiently large to carry at least a 20MW beam laser (about 75t I think) and sufficient armaments and shields to remain alive. Basically, this involves waiting for the ship to actually take off, and frying him while he is still vulnerable and unable to dodge. Nasty, but sweet.

Problems:

- o The cops will be hot on your rear real quick.
- o Fines can amount to over 10600 Credits.
- o You have to be rich to repair damages and set yourself up initially.
- o You have to be rich full stop.
- o You get a major thrill out of it. (big problem eh?)

1.82 Nosey Parker

Being a Military Spy

This is the point where your commander's life turns really fragile. The first time the Military give you a 'Photography Mission' they equip your current ship with a set of Military Cameras, which can be activated on the dashboard next to your energy bomb. The good thing about these cameras is that A) - they take up no tonnage. B) - Your dashboard looks more dashing.

Now, in my opinion, photography missions are a bit of a bugger. You see, to get really good quality pics, you have to get your ship within about ten kilometres from the target, and then take the picture. Meanwhile, it seems that every enemy ship within 50 light years has decided to have a go at giving you serious G.B.H. at no extra cost. And you also have to make it back to base by a certain date.

So. What ship? Well, something that can take some battering and yet be back home in time. Currently, I am using an Imperial Courier with an upgraded engine to do these missions, and I seem to be doing well enough.

The way I do it :

- 1 Enter system.
 - 2 Autopilot to planet in question.
 - 3 Attempt to sneak up to the base by hiding over the horizon.
 - 4 Start moseying in there.
-

- 5 Don't attempt to kill any ships until you are within 30 km of the target.
- 6 Within 30 km ? Hit that thar energy bomb NOW, if necessary.
- 7 Now try to keep your actual speed to around 2000 km/h - too much more and you will not be able to pull up in time, and Mr Ground will come to meet you.
- 8 You have to be within 6 km of the target to gain excellent quality snaps, otherwise they will just be good.
- 9 Done it? Now leave A.S.A.P.!

1.83 World War XX

Let's Nuke that sucker!!

Fun. Funfunfunfun. Oh JOY!!! <---(This is what you are probably thinking)

Am I right?

My Frontier character was promoted to Baron in the Imperial Navy on the 31st of December 3219. I received my first orders to Destroy a target on that day also. Man, was that fun!

Anyway, I have reached approximately the 20th such mission, and have polished my tactics off to a tee. To do these missions, I fly a Cobra MKIII with a Class 3 Military Drive and 30 tonnes of fuel, a 1MW Beam laser, and anything else I can cramm on. (Actually, here's an update : I currently fly an Eagle Long Range Fighter with a Class 4 Hyperdrive, a 4 Meg Beam, you name it...)

I have another saved character (for amusement only) who has a Viper, a small Plasma Accelerator, 150 shields, etc. 2000 tonnes cargo space!! I can overtake assassins!!!

My tactics :

- 1 Accept the mission.
- 2 Get there, and target the planet in question.
- 3 Activate the autopilot and accelerate time to maximum.
- 4 When you arrive, your actual speed will most likely be in excess of 100 kms, so go to manual and set your speed to around 4000 km/h, aim your ship at the planet horizon, and accelerate time by 100.
- 5 Done? Now save.
- 6 Go to normal time, and scan around the planet looking for a little white dot on the surface. Fly to the other side if necessary in accelerated time.
- 7 Save again, and fly to the target within 600km.
- 8 Release the missile, and watch that pretty big bang. Fly in as close as you want before release - you will not be injured by the blast. Shame really.

P.S.- If you target the missile as it flies and use the Radar Mapper, it tells you sometimes that it has a Hyperspace Cloud Analyser - why? Is the base gonna try to run? (did you know that a nuclear missile can go 200 ly in one jump!?!?!)

1.84 Feelin' Bored?

Spicing the Game Play a little bit.....

So, you've played Frontier for what seems an age now, and you are finally starting to get a little bored and irritated by little repetitions and suchlike. But not to worry. What follows is a list of my favourite things to do when I am in such a quandary :

- o Switch the Amiga into NTSC mode (refer to Workbench Manual) upon boot-up to force Frontier to have panavision graphics and actually play alot faster too.

- o Target random Hyperspace remnants, and wait at the other end for whatever it is coming through.

- o Try to mis-jump into one of those wierd, miscoloured nebulaes on the the system map. If you succeed, tell me on #amiga and tell me what its like.

- o Go sightseeing - visit all the places in the Gazetteer.

- o Go for a wander into a disputed system.

- o Do some manual landings!

- o Use an ASCII binary editor (like NEWZap or Zap etc.) to edit select names to something else - ie. I changed Abraham Lincoln and Li Qing Jao in orbit around Earth to Laga Hale and Babylon 5 respectively. It feels great docking at Babylon 5!!!

- o Hunt for the Mirage (again, plllleeeaaaassee tell me if you find it!)

- o This would make an excellent GIFT for me!

- o I know the thing exists! Guaranteed!

- o Go boldly forth to where no man has gone boldly before ... and die a greasy death.

- o Use the Short Wormhole technique to go to the Galaxy's centre or edge.

- o Play a nice game of Syndicate - if you have this game, do the following :

Use your persuadatron to get ALOT of people.

Self-destruct ONE of your agents!

The carnage is unbelievable!!!

- o Watch Babylon 5, Star Trek, and the X-Files consecutively.

- o Shoot yourself and see what happens - write in and tell me.
- o Get yourself a panther
- o Get yourself a Panther Clipper, equip her with everything used to survive and an escape capsule. Now leave the space station, and stop the Panther just inside the bay doors. Leave engines on. Eject. You have effectively left the station plugged up until someone with a large gun (you) clears it away!
- o Do a slingshot orbit - (refer to manual)
- o Do some fuel scooping.
- o Sightseeing

You can fly through all the domes on planets without a breathable atmosphere and land between the buildings. If you do this for the transparent domes at Ross 154 you will find in one dome administration buildings of Vega Line, Sirius Corporation and other trading houses and in the second dome the usual combination of concrete blocks and green patches in between with scattered brick houses. It is definitely fun to fly between the buildings and look at your surroundings. Agriculture domes are a bit boring, because they contain nothing more than lots of green balls at ground level.

Domes that are not transparent, can be entered too but contain absolutely nothing. It is interesting, that they are no obstacle for you though. At least they are good for some very strange graphical effects if you land in one of these domes and use your outside view to look at your surroundings.

In every major city with more than the space port and a little industry you can find little churches with working clocks. The cities are structured as large blocks of ugly concrete buildings and patches of green between them with scattered brick houses and every now and then a little church. Try to rough land in the vicinity of such a church and watch the clock on the church steeple. Use time acceleration for better effect. If you are close enough you can even read the roman numbers on the clock face. The buildings give you an interesting impression of the size of your ship. A Cobra MK III looks huge compared with this tiny little church. And have you ever seen a huge space ship standing in the graveyard behind a church? It looks definitely strange.

- o Dumping Radioactives

One way to get rid of the radioactive waste from military drives is to dump it into space right out of your cargo bay. If you are in a system where a strong police force is watching, this can get you in trouble even if you dump directly after your jump into the system. In such systems you should simply sell your waste or (if radioactives are illegal) find a reliable merchant on the black market who takes it back.

You can have loads of fun if you try a few highly illegal dumping places. A space port is a very nice place to dump your waste on. Some people prefer to dump their radioactives into the still open landing bay of an underground spaceport. You can even fling your waste into a long range cruiser that waits outside of some space stations. Of course you can do the same with mines for the thrill of finally seeing a mine hit something!

There seem to exist systems where you can get real money for your radioactives. Look out for systems in the state of civil war. Sometimes you can sell your radioactives there on the black market.

o Crash Avoidance

Assume you have to perform a mission on some planet, reached it and find out that you are too fast to be able to decelerate in time to avoid a crash landing. What can you do? The correct way is to watch the crash, reload a previously saved game and try again. The Frontier way is to use time acceleration to avoid the crash. Simply switch to maximum time acceleration just before the crash. You will make a big jump through the planet and be safe at some distance at the other side.

This is not really a bug but more or less a consequence of the implementation of time acceleration. Collisions are detected if your ship collides with an object at a given time frame of the simulation. When you accelerate time these time frames are farther apart and so are your positions in space if you are moving. If your position at one time frame is above a planet and at the next time frame on the other side of the planet Frontier will not detect the collision that should have happened in between.

o Charity

If you give money to charity, you will get a better reputation and people will trust you more. This means that you can get 10% more money for deliveries, get all or part of the money in advance and more people will want to work for you (?). Your reputation will also grow if you succeed with passenger transports without receiving too much damage to your ship. Therefore giving away your money is not really necessary if your reputation is not too bad for passengers to accept you carrying them.

o Negotiations With The Police

If you have been caught selling or buying illegal goods or having them on board, the police will fine you. If the officer is not corrupt, you can always lower your fine to the original amount if you claim you "haven't done it".

o Certain Missile Hit

Switch to maximum time acceleration after firing the missile. Your missile will hit even if you use a nuclear missile and/or have 900 km distance to

your target.

1.85 What?!?!

Look, I dunno. I was scanning through Frontier using NewZap one day and I saw the line "Help with the disaster in" amongst the other Military missions.

Someone please tell me what is up, and i'll make you famous. Maybe. :-)

1.86 You could make me happy....

Now, it is not as if I am asking for a tenner or anything - just a simple gift would suffice (although if this was a tenner I would not scream with anger).

So, you know, just slap in that disk and send me something tasty.

Imagine models appreciated also.

Free GVP 1230 II 50MHz FPU 8Megs RAM expansion would go down a treat also.

But not likely.

@ @
L Stone-D.
___/

Thank you.

Find my address in the upgrades section (or contact me at #amiga).

1.87 Ta much folks...

I would like to take this opportunity to say a big HELLO to the following people :

Mike Diamond

Kevin Malley

Sarah Elouar

Ben Woodward

Joanna Allan

Alistair Ruane

Alexej Omelyanenko

Alice Kinloch

And these people especially :

Christoph Tietz

Urban Mueller

And also these folks on the IRC :

Babylon5

Gilesey

Ren

Slayer

Kate

Grypas

et al

To the above :

You see? You're famous now!!

If you know anyone on this list, give them a yell and let them know.

1.88 Hope you don't mind...

Some of the information collected in this database comes from an existing document created by Christoph Tietz, who plays Frontier on the IBM PC, who got the info from a variety of Frontier players on the net.

If you ever read this, Chris, I hope you don't mind.

1.89 physics

VII Flight Physics

1 AU =	1.496×10^{11} m	(astronomical unit)
1 g =	9.81 m/s ²	(gravitational acceleration on earth)
1 h =	3,600 s	(hour)
1 d =	86,400 s	(day)

Equations for Free Fall

Navigational Equations

Hyperdrive and Jump Ranges

WormHole Theory

1.90 freefall

Equations for Free Fall

With velocity v [m/s], acceleration a [m/s²], distance d [m] and time t [s] we get:

$$v = a t = \sqrt{2 a d}; \quad d = 1/2 a t^2; \quad t = v/a = \sqrt{2 d/a} \quad (1)$$

1.91 naviquations

Navigation Equations

For the distance d travelled with initial acceleration a_1 and final deceleration a_2 the values of interest for the journey are the maximum velocity at the turning point (where we change from acceleration to deceleration) v_u , the distance d_2 of the turning point from the target and the time t_d that is needed for travelling the distance d . We assume that forces other than those produced by our own engines can be neglected and that we start and reach the target with zero velocity. Furthermore we assume that the engines are used all the time at full power. If the main engine is used for acceleration and deceleration the equations are very simple:

$$v_u = \sqrt{a d}; \quad t_d = 2 \sqrt{d/a}; \quad d_2 = d/2 \quad (2)$$

This fastest mode of flight is used to accelerate up to the turning point velocity at the distance d_2 , turn the ship and decelerate until the target is reached.

If the autopilot is used instead, it will use the main engine for acceleration and the secondary thrusters (retro thrusters) for deceleration. In this case we get the equations:

$$\begin{aligned} v_u &= \sqrt{2 d (a_1 a_2) / (a_1 + a_2)} \\ t_d &= \sqrt{2 d (a_1 + a_2) / (a_1 a_2)} \\ d_2 &= d a_1 / (a_1 + a_2) \end{aligned} \quad (3)$$

The time t_d is always a lower bound for the really used time because the autopilot doesn't use the engines at full power all the time. I approximated the real time consumption of autopilot flight with a least mean square fit of data from 20 undisturbed flights with a Cobra MK III. Measuring the distance in astronomical units [AU] and the acceleration in units of earth gravitational acceleration [g], I got for the time [d]:

$$t_{dA} = 1.212/86400 * \sqrt{(2.992 * 10^{11}) / 9.81 (d (a_1 + a_2) / (a_1 a_2))} - 0.001 \quad (4)$$

1.92 hyperphysics

Hyperdrives and Jump Ranges

A hyperdrive lets you travel its maximum range in seven days, which is 168 hours. Travel time is linear with distance, so you will use one day to travel a seventh of your hyperdrive range. For a class n drive you will need n^2 tons of fuel to travel the maximum range, except for the class 8 hyperdrive which actually is a class 9 drive and therefore uses 81 tons for a maximum range jump. The fuel consumption is linear with the distance, using only integer amounts of fuel, so you will need e.g. $\text{ceil}(n^2/2)$ tons of fuel to travel half the maximum drive range. The only difference between the civil and military versions of a drive is the weight of the drive and the type of fuel used.

The relation between jump cost c [t], jump time t [h], ship mass m [t] and jump distance d [lj] can be expressed a little more exact to give you a few numbers to crunch. Here the equations:

$$c = \text{ceil}(d * m / 200), \quad t = 168/200 * d * m / h^2 \quad (5)$$

If you set the time to the maximum 168h in the second equation you can calculate the maximum range of the drive of a given class in a given ship. If you do this for the class 8 drive in a Panther or Boa you get inconsistencies. From the ships table you can see that the class 8 drive behaves like a class 9 drive in the Panther and like a class 7.79 drive in the Boa. I hope this indicates a mistake in the table. The maximum ranges for the Lynx Bulk Carrier and the Long Range Cruiser are calculated as if the class 8 drive were actually class 9 drive. I don't know whether these ships can carry hyperdrives at all.

1.93 wormtheory

Wormhole Theory

The following seems to be invalid for updated versions of the game.

A ship can jump very large distances due to a modulo effect in the hyperspace continuum with a base of $W_{\text{sect}} = 81.62$ sector lengths (655.36 lj). One can use this behavior to find jump paths that are much shorter in time and fuel consumption than the straight distance. This also allows you to use a smaller hyperdrive and leaves more room for fuel and cargo. The optimal jump points for a journey between two systems with one intermediate stop are found on the intersections of circles around the two endpoints of the journey. On such a circle lie the systems that can be reached from the center of the circle with a minimum amount of fuel and time. A system at the intersection of such circles can be reached easily from the centers of both circles, making it an ideal intermediate jump point. The circles have multiples of the wormhole distance (655.36 lj) as radii. To make the calculations simple we assume at first, that the "thickness" of a sector can be neglected and that two jumps with equal distance shall be made, resulting in circles with equal radius. The coordinates of the ideal intermediate jump points can now be found on a line that perpendicular bisects the segment between the two endpoints of your journey, at the points of intersection of the circles around the endpoints.

For two star systems at the coordinates (x, y) and (u, v) we define:

$$a = (u - x); \quad b = (v - y) \quad (6)$$

We choose a jump distance of $W_n = n \times W_{\text{sect}}$ sectors. With this definitions we get as coordinates for the intermediate jump (p, q) :

$$\begin{aligned} p &= (x + u)/2 + b \sqrt{W_n^2 / (a^2 + b^2) - 1/4} \\ q &= (y + v)/2 - a \sqrt{W_n^2 / (a^2 + b^2) - 1/4} \end{aligned} \quad (7)$$

or

$$\begin{aligned} p &= (x + u)/2 - b \sqrt{W_n^2 / (a^2 + b^2) - 1/4} \\ q &= (y + v)/2 + a \sqrt{W_n^2 / (a^2 + b^2) - 1/4} \end{aligned} \quad (8)$$

Now n has to be chosen such that the square root has a real solution (the jump radius is larger than the half distance between the systems) and we have to find a system near one of the intermediate jump points. If such a system cannot be found, we simply increment n and try again with a wormhole distance of the next greater order.

If you want to perform two jumps with different jump sizes the equations have essentially the same structure but get a bit more complicated. We define a and b as in (5) and choose the jump distances $W_m = m \times W_{\text{sect}}$ for the first jump and $W_n = n \times W_{\text{sect}}$ for the second jump. m and n must be chosen such that:

$$| m - \sqrt{a^2 + b^2} / W_{\text{sect}} | \leq n \leq m + \sqrt{a^2 + b^2} / W_{\text{sect}} \quad (9)$$

This ensures, that there exists an intermediate jump point at all. With

$$\alpha = (W_m^2 - W_n^2) / (2 (a^2 + b^2)) + 1/2 \quad (10)$$

we get for the coordinates of the intermediate jump point (p, q) :

$$\begin{aligned} p &= (1-\alpha) x + \alpha u + b \sqrt{W_m^2 / (a^2 + b^2) - \alpha^2} \\ q &= (1-\alpha) y + \alpha v - a \sqrt{W_m^2 / (a^2 + b^2) - \alpha^2} \end{aligned} \quad (11)$$

or

$$\begin{aligned} p &= (1-\alpha) x + \alpha u - b \sqrt{W_m^2 / (a^2 + b^2) - \alpha^2} \\ q &= (1-\alpha) y + \alpha v + a \sqrt{W_m^2 / (a^2 + b^2) - \alpha^2} \end{aligned} \quad (12)$$

1.94 Thanks to Christoph Tietz

Military Ranks
Elite Rating

1.95 milrank

Here comes the list of ranks in the German and the English version together with the number of points you have to get to advance to a given rank.

_Federation_German_	English_____	_Empire_German_	English____	__Points_
Keiner	None	Aussenseiter	Outsider	0
Gefreiter	Private	Leibeigener	Serf	1
Unteroffizier	Corporal	Master	Master	16
Feldwelbel	Sergeant	Sir	Sir	81
Hauptfeldwebel	Sgt-Major	Squire	Squire	256
Major	Major	Lord	Lord	625
Oberst	Colonel	Baron	Baron	1,296
Leutnant	Lieutenant	Viscount	Viscount	2,401
Korvettenkapitaen	Lt. Commander	Count	Count	4,096
Kapitaen	Captain	Earl	Earl	6,561
Kommodore	Commodore	Marquis	Marquis	10,000
Konteradmiral	Rear Admiral	Herzog	Duke	14,641
Admiral	Admiral	Prinz	Prince	20,736

The following table shows the correspondence between the mission type and the points you get for the successful completion of a mission:

_Mission_Type____	_Points_
delivery	2
assassination	14
foto	16
bombing	18
'excellent' foto	20

Different kinds of military missions are bound to your rank. In the federation you carry unimportant stuff until you get promoted to Sergeant; then the first secret messages may be carried by you. You will get your first military assassination mission as Sgt-Major. After your promotion to Major you will get additional reconnaissance missions and a Colonel may execute bombing missions. The empire handles equivalent ranks the same way. You seem to get no new type of mission when you advance further in rank although there are many rumors that you get new missions to destroy enemy ships at Commodore/Marquis level.

The above does not hold, if you execute missions for more than one side. I made the mistake of working for the empire after I advanced to Colonel and had gotten my first few bombing missions. I advanced to Squire in the empire and went back to the federation. Now I had the problem, that I got no more bombing missions but had to stay with the usual reconnaissance missions. I eventually got bombing missions again, but working for the empire surely stopped my federal career for a while.

The safest way to advance in the federation and the empire at the same time seems to be the famous 'rank swing': Advance one rank in the federation, work for the empire and advance one rank there, return to the federation and so on until you are Admiral/Prince and ELITE and bored to death.

Your rank is not the only prerequisite you need to get a certain type of mission. You have to own all the possible medals for earlier missions first. You get medals for:

1. the first delivery of an important item like gravitic detonators,
2. the first delivery of secret communication,
3. the first successful assassination,
4. the first successful reconnaissance mission,
5. the first reconnaissance mission with resulting excellent film and
6. the first successful bombing mission.

A strange side effect is, that you must not perform all reconnaissance missions perfectly, because if you do, you will not get your fourth medal!

The complete list of medals for the German and the English version of the game looks as follows:

_Federation_German_ _English_____	_Empire German_ _English_____
Tapferkeitsurkunde	Certificate of Valor
Sternexplosion	Starburst
Purpur-Omega	Purple Omega
Zinnober-Krone	Vermillion Crest
Blauer Exzelsior	Blue Excelsior
Frontier Medaille	Frontier Medal
Rote Armbinde	Crimson Brassard
Schwarzes Polygon	Black Polygon
Goldene Lanze	Gold Spike
Platinkreuz	Platinum Cross
Ehrenlegion	Legion of Honour
Himmelskrieger	Celestial Warrior

1.96 eliterating

And here your combat rating with more magic numbers. They seem to denote the number of ships you have destroyed multiplied by 256. In other words, you get 256 points for each destroyed ship regardless of its type.

_German_____	_English_____	_Points _	_Kills_
Harmlos	Harmless	0	0
Meistens Harmlos	Mostly Harmless	1,024	4
Schwach	Poor	2,048	8
Unterdurchschnittlich	Below Average	4,096	16
Durchschnittlich	Average	8,192	32
U"berdurchschnittlich	Above Average	16,384	64
Kompetent	Competent	32,768	128
Gef"ahrlich	Dangerous	256,000	1,000
T"odlich	Deadly	768,000	3,000
ELITE	ELITE	1,536,000	6,000

For every 256 destroyed ships you will get a message like: "right on commander". This is an indication of your advances between the ranks. From the table you can see, that you should get Dangerous between the third and the fourth message of this kind. You advance to Deadly between the 11th and 12th message. You should become ELITE after the 23rd message.