

Frontier: First Encounters

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Credits

Frontier: First Encounters is the third in a science-fiction game series, all of them set in the same universe. The first of the trilogy, ‘Elite’ (by David Braben and Ian Bell) was released in 1984. The second, ‘Frontier’, was released in 1995. First Encounters has now been released as Shareware by Frontier Developments.

The original First Encounters only ran on DOS. John Jordan reverse-engineered it to produce JJFFE — basically the same game, with a few extra features, but running natively under Windows and Linux.

- Download the game from <http://www.eliteclub.co.uk/download/> and unzip it.
- Download JJFFE from <http://www.jaj22.demon.co.uk/> and unzip it over the top of your FFE directory.

This manual is based on the original manual for the game Frontier: First Encounters, written by Tony Dillon and Manda Scott, and (c) 1995 by David Braben. An scanned-and-OCRd version can be found at <http://www.mdibb.net/lotf/-dl.html>. Parts are also taken from the manual of the original game Frontier, also (c) David Braben and available at the same address.

A substantial amount of additional material came from the web site of Graham ‘Jades’ Thurlwell, at <http://www.jades.org/ffe.htm>. This material includes the systems list, the technology levels map, statistics and reviews and graphics for the ship list, parts of the equipment list, systems of interest, Who’s Who, trade routes, career guide, and more. Other people whose work is included on his site and made it’s way into this manual include Schwempa, Matt Dibb, hsch, Dylan Smith, and Bee-Team.

A substantial amount of additional material also came from the web site *Life on the Frontier* of Matt Dibb, at <http://www.mdibb.net/lotf/>. This material includes the career guide, rank and reputation, quick start, mining guide, undocumented features, trade routes and more. The quick start also benefited from material by Telepath, <http://www.geocities.com/Area51/6107/elite.htm>.

A substantial amount of additional material also came from the web site *Alioth.net* of Dylan Smith, at <http://www.alioth.net/>. This material includes all of the advanced flight and combat guides, ship and equipment summaries for combateers, combat trade routes, system descriptions for Alliance planets, descriptions of the main factions, ship reviews for craft in the Alliance Joint Navy, and more.

Much material also came from the First Encounters FAQ, written originally by Jeroen van Drongelen and now produced by Jades, available at <http://www.jades.org/ffefaq2.htm>. This includes problem-solving information for

flying and hyperspace, mission descriptions, bugs and glitches for missions, and more.

The artwork for ships and some weapons comes from the First Encounters Art Page at <http://www.hooplah.com/encounters/>.

The credits for the game itself are as follows.

Programming: David Braben, Andrew Dunn, Mike Edie, Peter Elliot-Green, Peter Irvin, Ran Mokady, Jonathan Roach, Chris Sawyer. Shapes: Aggy Finn, David Braben, Jonathan Griffiths, Peter Irvin. Ship Interiors: Danny Flynn. Planet Design: Jonathan Roach, David Braben. Music: 'Quality Quartet' Amsterdam, Dave Lowe. Sound Driver: Mike Edie. Intro Sequence: Aggy Finn.

Story: Manda Scott, David Braben. Short Stories: Julian Flood, Jude Jones, Martyn Taylor, Moira Sheehan, Kathy Braben, Manda Scott. Journal Entries: Manda Scott, Fullan Flood, Jude Jones, Suzannah Oliver, Tony Gallucci, Martyn Taylor.

Video Production: Dave Jordan, Manda Scott. Video post production: Kathy Braben. Representation: Jacqui Lyons of Malacq. Video Actors: Elizabeth Arbaud, Peter Edan, Tony Gallucci, Jason Graham, Steve Gorman, Sarah Johnson, David Jordan, Brendan Kavanaugh, Clyde Kellett, Susan Kelly, Dorian McFarland, Michel Moalem, Jason Myers, Rob Patterson, Chris Paton, Piers Pitcairn Pooni, Phil Purves, Mark Reading, Thomas Skinner, Rose Thomas, Keith Vogel, Simon Watkins.

Preface

To J. Jameson Jnr
51a, South Dormitory
Fish Processing Plant 3142
Sirocco
Merlin
Ross 154
-1/0Rs2a S16

From Messrs. Sue, Cripple and Sneer
Solicitors
Windrush Tower
Olympus Village
Mars
Sol System
0/0SO4 OL1
31.12.3199

To whom it may concern,

It is our duty to inform you of the death of your grandfather Commander Peter Jameson. The wreckage of his ship was found in the Reidquat system on November 11th 3199. He was presumed killed in combat after a 'misunderstanding' over some stolen goods according to the local press. A last will and testament was prepared on February 3rd 3198 and section 4.1 below has been circulated to all living grandchildren as instructed by our late client. If you have any queries do not hesitate to contact us. The normal fees of fifty Credits per hour (including service tax) apply.

Yours sincerely,



Mr Edmond Sneer

Section 4.1 of the Last Will and Testament of Commander Peter Jameson.

Welcome to life on the Frontier! — a way of life that is very different to the dull, planet-bound existence you have probably led up to now. It is a way of life that I loved and want you to experience. I want you to feel the freedom of flying your own ship and being able to explore the vast galaxy. Whatever your aims in life (I settled for wealth, power and fame) there is an occupation for you. Try your hand at trading, following established trading routes or making your own. Maybe doing odd jobs is more your style, buzzing from one place to the next, never working for the same person twice. What about mining? later perhaps. I know that some of you will succumb to a criminal existence, so I may as well say that piracy, bounty hunting and mercenary work will suit you. I won't tell you to place your allegiance with the Federation, the Empire or the

Independents but be careful; they all use you for their own aims. No amount of treaties will change the fact that they dislike each other.

Space has changed a great deal since I was your age. No, I am not going to harp on about everything being cheaper and friendlier in the past; people were just as bad then as now. But we now have better technology and humans have spread further, so there is more scope. Your abilities as a pilot will be tested to the full, especially in combat, so before you upset anybody, get in some practice.

I want to give you the best start I can. As there are so many of you, my resources have been spread thinly. Each of you will receive a Saker Mk III Fighter and one thousand credits. The ship has been delivered to your local star-port but the documents are enclosed with this letter.

Above all, enjoy yourself and *be wary!*

Quick start

Ok, so you are sitting in your ship on the tarmac. Now what? First, you must get permission to leave from air traffic control.

- Click the communications button on the control panel (icon of a telephone)
- Select ‘Request Launch Clearance’.

Traffic control will send you a short message, to the bottom-right of the screen, saying that you have clearance to leave. Other things to do in dock: click the left-most four buttons on your control panel, for the four basic modes: View, Inventory, Navigation, Communications. Each mode has different additional buttons to the right. You can use the function keys as keyboard shortcuts.

Next, take off! The start-of-flight procedure has to be done fairly quickly, so read through the list before starting.

- Click the tail of your engines to turn them on (bottom-left of screen). You will take off.
- With the right mouse button down, drag the mouse towards you to point your nose up.
- Press and hold Enter for five to ten seconds, to accelerate away from the planet.

If you don’t accelerate away immediately, you might get a fine for loitering — or even crash back into the planet due to gravity. Other things to do: click on the View control button several times to cycle through front view, rear view and exterior view.

Next, you’ll hyperspace to a different star system.

- Click the space-map button on the control panel (icon of a green grid), to see a map of neighbouring stars.
- Click on Titican, a bit further up on the screen, to select it as your hyperspace destination.
- Click on the view button (icon of an eye) to return to front view.
- Click on the hyperspace button (bottom-left of screen, red arrow pointing into a galaxy).

Hyperspace is not allowed close to cities or space-stations, so you might have to keep flying away for a few seconds more before the hyperspace button appears. Other keys for the galactic map: cursor keys pan the map; right-click-and-drag rotates it; C centres the map on your current location.

Now, dock at one of the space-stations in the Titican system.

- Click the Navigation button (icon of a question mark) to activate the nav-computer.
- Select Argent as the destination. The auto-pilot will automatically engage, and green boxes will show the path to Argent.
- Click the space-dreamer button (top of the up-arrows to the left) to make time seem to pass more quickly.

The autopilot can be turned off and on by clicking on the red arrow near the top of the engine panel (bottom left).

Maybe everything will go smoothly, and you will be woken up from your space-dreams just as the autopilot gets ready to dock. Or maybe your dreams will be interrupted by a pirate attack! These are the controls to use when defending yourself:

- Hold down right mouse button while moving: rotate.
- Enter and shift: speed up and slow down.
- Both mouse buttons at once: fire your laser.
- ‘T’ to prime the target crosshairs: when an enemy passes through them, he will be targeted, so you can fire a missile.
- M: fire missile.

Combat is tricky. Your craft is very weak at the moment, not suitable for combat, so probably you will get killed. But if you manage to fight them off, click the space-dreamer button again.

Missions The only reason to fly to a new star system is to do something there! The game is very open-ended. You can play as a trader, buying and selling goods around the galaxy. Or you can become a pirate, or a bounty-hunter. Or you can take on the missions that are advertised on star-port bulletin boards. Or you can join the Imperial Navy, or the Federation Navy. Actually, you can’t do many of these at the start of the game, since your ship is so weak. Here is one suggested course of action. (But first, start a new game: press Escape twice, then click the New Game button).

To find missions, you should always read the bulletin boards and newspapers when you arrive at a space-port.

- In the Inventory Panel, read your *Newspapers* (F5).
- In the Communications Panel, visit the space-port’s *Bulletin-board* (F7), the *Stock-market* (F8), and look for upgrades at the *Shipyard* (F6).

In the newspapers, it says that there is a race from Old Curie here on the planet Hope, to the Alioth system. It also says there is a plague in the Soholia system. That's convenient, since the galactic map shows that Soholia is on the way to Alioth.

- Buy medical supplies at the stock-market.
- Fly to Old Curie, and pick up the Dream Tapes on the bulletin board.

To fly to Old Curie, you can't use the autopilot straight away, since it will try to fly you *through* the planet! Instead, manually fly up into the atmosphere for a time, until there is a direct line of sight to Old Curie, and then engage.

- Hyperspace to Soholia, to drop off the medical supplies. Sell them on the bulletin-board, rather than the stock-market, to get a higher price. (People only advertise for goods on bulletin-boards when they are desperate, and the stock-markets can't supply.)
- An empty cargo bay is a wasted cargo bay! Buy some computers or farm machinery for your continued journey to Alioth. Also buy some more Hydrogen Fuel at the stock-market, for your hyperdrive.
- Hyperspace to Alioth, and deliver the tapes to Ghandi.

You might wish to get rid of your missiles, and atmospheric shielding, to make room for cargo. (Only dock at space-stations!) Other ship upgrades to consider are an ECM unit, which blows up enemy missiles (and takes less room than the Chaff unit). And Naval missiles work out the most effective. But the first priority should be to get enough money to get a better ship with a beam laser fitted, and energy shields.

- Continue taking medical supplies to Soholia until the plague finishes and they no longer pay so much on the bulletin boards.
- While doing that, keep checking the boards for any special delivery missions.
- Afterwards, load up with enough hydrogen fuel for several jumps, and head off wherever you want to go. Maybe to the Sol system to take missions for the Federation Navy. Or maybe to Archernar to work for the Imperial Navy.

Flight		Panel modes	
ENTER	Speed up	F1	View panel
SHIFT	Slow down	F2	Inventory panel
TAB	Autopilot/By-wire/Manual	F3	Map panel
CURSOR	Direction	F4	Communication panel
A Z < >	Direction		
Right-drag	Direction	Equipment	
[]	Roll	?	Hyperspace cloud analyser
Num6/3	Up/down thrust	D	Mining-machine launch
Num4/1	(Manual engines)	D	Camera (photo missions)
Num7/9	Left/right thrust	U	Raise/lower undercarriage
Num8/5	Forward/reverse thrust	R	Refuel
Combat		Maps	
SPACE	Fire lasers	C	Centre galactic map
Both-btns	Fire lasers	R	Destination orbital map
T	Target	Right-drag	Rotate map
M	Missile/mine at target	PgUp/Dwn	Message log
B	Energy bomb		
E ;	ECM	Options	
X	Escape capsule	ESC	Pause game
Navigation		ESC,ESC	Options
H	Hyperspace	F	Show frames-per-second
L	Labels for planets/ships	Ctrl-Q	Exit
6 7 8 9 0	Star-dreamer	Ctrl-F12	Full-screen/windowed
		1-3	Alternate start (intro)

F1 View panel		F3 Map panel	
F5	Battle/nav mode	F5	Sector map
F6	Front view	F6	System orbit map
F7	Back view	F7	System info
F8	Turret view	F8	Galactic map
F9	External view	F9	System economy
F10	Missile view	F10	System politics
F11	Combat computer	F11	Zoom in
F12	Escape pod	F12	Zoom out
N	Navigation computer	R	Destination orbit map
+ -	Zoom (ext. view)	CURSOR	Pan (Sector map)
CURSOR	Rotate (ext. view)	Left,Right	Time-advance (Orbit map)
F2 Inventory panel		F4 Comms panel (at star-port)	
F5	Newspapers	F5	Request launch clearance
F6	Ship equipment	F6	Shipyard
F7	Commander profile	F7	Bulletin board
F8	Crew roster	F8	Stock market
F9	Passenger roster	F9	Star-port police
F10	Cargo		
F11	Outstanding contracts		
F12	Mining installations		

Table 1: Keyboard shortcuts

Chapter 1

Tutorial

For those of you who have never handled a ship before, what follows is the quickest way to get into the skies. If you follow these instructions to the letter, you should have no problem at all in getting from one system to another — and even making some money into the bargain. You won't learn everything you need to know about spaceflight from this one simple lesson, but it will certainly get you moving in the right direction.

Seasoned Commanders may still find it useful to browse through once to get the hang of the Saker Mk III's flight controls.

1.1 Your first view

The Saker Mk III is not one of the roomiest craft around but the head-up display projected in front of your Commander's desk gives you a perfect view of the world around you.

Your first vision of the Galaxy is the starport of Old Blackelk on the planet Hope, a terraformed planet with a jungle-based ecosystem in the solar system of Gateway (so called because it is the natural entry point to the group of systems banded together to make the Alliance of independent Systems).



Figure 1: Starport of Old Blackelk on planet Hope, Gateway [-1,4]



Figure 2: The Saker Mk III — your ship

Gateway itself is a red giant star making the sunrises and sunsets over the planet well worth watching.

If you want to look around your new ship, use the ‘external view’ panel (F9) while you are still in View Mode (F1). The cursor keys enable you to move the viewing camera around and take a good look at your Saker Mk III. Use + and - to zoom in and out.

All of the function keys have equivalent icons in the control panel. See Chapter 2 ‘Controls’ on page 17 for more details.

1.2 You and your ship (Inventory mode)

You For those of you with trouble remembering your name in the morning, the Ship’s Inventory tells you everything you need to know about yourself and your ship.

- Select the Inventory panel (F2) and then the Commander Profile page (F7) to find all those juicy details you really wish the rest of the world didn’t know.

Just now, this page will be mind-numbingly clean. Don’t worry — it won’t last!

Your ship Your Saker Mk III comes equipped with a number of pieces of essential equipment. To look at these in more depth:

- Select the Inventory Panel (F2) and then look at the Ship Equipment page (F6).

This will show that you have: a Scanner, an Automatic Pilot and Atmospheric Shielding plus a 1 MW Pulse laser on the front laser mounting — all courtesy of the New Rossyth Shipyard’s Customer Satisfaction Department.

Cargo As and when you have cargo on board, the cargo screen tells you what and where. Check it out later when you’ve bought something. To see the cargo screen,

- Select the Inventory Panel (F2) and then look at the Cargo page (F10).



Figure 3: Gateway is at sector [-1,4]

Note — just buying fuel isn't enough. You have to transfer it from your cargo hold to your fuel tank. Unless you've purchased auto-refueller, you have to do this by hand by clicking on the re-fuel button on this page. *Don't forget.*

Now it's time to look out into the big wide world and see what's there.

1.3 The galaxy

The sector map For convenience, the galaxy is divided up into 'sectors'.

- On the main console, select the Map Panel (F3) to take a look at Gateway and its surrounding systems.
- The first map presented to you is the green grid of the Galactic Map which shows all of the stars in your vicinity. Gateway is in the centre, marked by the pink cross. (See Figure 3).

Details of the system scroll up on the text screen on the lower right of your console, and the sector co-ordinates [-1,4] are displayed to the lower left of the map.

Your system The details you are presented with refer to the system that you have highlighted on the Sector Map. The currently highlighted system is Gateway, the system you are in.

Hold down the right hand mouse button and roll the mouse around a bit to alter your angle of view. Similarly, use the Zoom panels or F11 and F12 to Zoom in and out.

The pink circle gives you your current maximum flight range based on the ship's fuel. No fuel, no range.



- Select the System Orbital Map (F6) to have a closer look at the bodies in the system and their orbital paths. The 'Forward' and 'Rewind' arrows that appear just above the main console on the right move the bodies along their natural orbital paths allowing you to predict their positions at different times.



Figure 4: The Data Screen tells you all you need to know about any body in the system



Figure 5: The Economy Screen at Gateway [-1,4]

- Select the System Info Screen (F7) to look at a more detailed diagram of the system. In this case, you can see that Gateway has 15 major bodies. By clicking on any one of these, you can find out more data.
- Click on the third body along — the small terraformed planet between the two medium gas giants — and you will be given a read-out on ‘Hope’, giving you the comforting facts that the atmosphere is oxygen-based and the surface temperature is a mere 60 degrees Centigrade. You are also given a list of the major starports on the planet. (See Figure 4)
- Clicking on the body below the planet gives you data on ‘Dublin Citadel’, Hope’s orbital space station.

For the fainthearted, a quick trip up to Dublin Citadel will give you some trouble-free flying practice (including a truly wonderful view of the planet and the red giant of Gateway) without having to face the horrors of deep space

Trade

- Select the Economy screen (F9) to look at the trade details for Gateway.



Figure 6: The Politics Screen at Gateway [-1,4]

Notice that the major and minor exports are largely agriculturally based: Animal Meat, Animal Skins, and Live Animals (sent in a truly friendly fashion, naturally), while the imports are the industrial products: Heavy Plastics, Farm Machinery and Robots.

On the whole, exports are cheap and imports are dear, so don't try to buy Robots here unless you have a burning desire to drop your current credit rating in a hurry.

It is worth noting in passing that it is illegal to deal in slaves, and those caught doing so will be seriously unpopular — not to say suddenly unsafe.

Politics Select the System Politics panel (F10) to take a look at the political and cultural affiliation of Gateway. This is one of the key systems in the Alliance and, as such, the inhabited areas within it have a stable civic structure. Unless you have fallen foul of the Police or the Alliance ruling council, you should be perfectly safe in Gateway.

1.4 Where to go, and what to do there

Now that you know everything you need to know about Gateway, you have to decide where you want to go next.

- Look again at the Galactic Map (F5) and either click directly on Titican [-2,5] with the mouse pointer, or use the cursor (arrow) keys to center on it. Titican, 4.42 light years away, is the next system up from Gateway — you really can't miss it. This newly selected system is marked with a green cross to distinguish it from the system at which you are docked.
- Take a quick look at the Destination Orbital map (R) to have a look at where things are in Titican.
- Select the Data Screen (F7) and look at the planets in Titican highlighted system. The second planet along is 'Jenning's Hollow' and orbiting round it is the space station 'Argent' named after Meredith Argent, one of the founders of the Alliance of independent Systems (and co-owner of the New Rossyth Shipyards)



Figure 7: Ship items and upgrades

- Titican is a mid-technology mining system. Take a look at the Economy Screen (F9) and you will see that, conveniently, Animal Meat, Fruit and Veg and Minerals are major imports while high technology items such as Heavy Plastics, Farm Machinery and Robots are all on the list of exports. This is the key to trading. Buy as much of what you can afford of what people want and take it there.

Politics Titican is another Alliance democracy, so visiting here should be a breeze — no pirates, no anarchists, no floating squadrons of the second imperial Protectorate out for a bit of fun. Allegedly

What to take Your first flight is from an agriculturally-base jungle world to a mid-technology mining planet. Therefore it would be wise to take food in some form to the miners and bring some technology back (if you fancy coming back through Gateway again).

All pre-flight stocking up is done courtesy of the Service Department — connections are made through the Communications Panel (F4).

Your check list for stocking up before flight goes like this:

- Ship items (F6)
- Bulletin board (F7)
- Fuel (F8)
- Trade items (F8)

Ship items (F6) At the moment, your Saker MK III is perfectly suited to your needs — which is just as well because you don't have the credits to buy anything bigger.

If you did — or if you fancied doing something completely reckless (like buying an interplanetary shuttle) you would need to contact the shipyard Services (F6).

Later when you are rolling in credit, you can use this service to buy bigger and better ships, bigger and better weapons and to get both serviced when they need it.

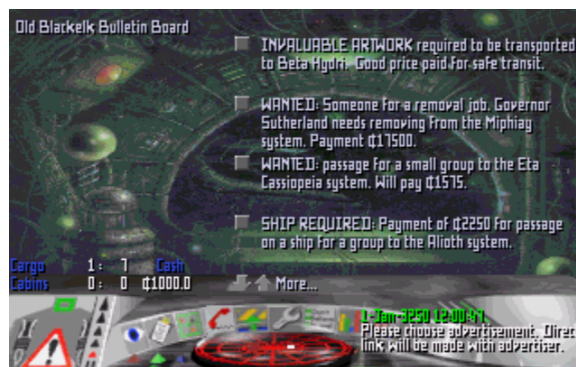


Figure 8: Check out the Bulletin Board for useful missions

It's worth going here before you buy anything on the stock market — no point in trying to buy a hundred tonnes of alien items on the market if you've just taken up all your spare space with a plasma accelerator.

Bulletin boards (F7) If you know where you're going, have a route planned and an idea of what you want to take, it's a good idea to take a look at the Bulletin Boards to see if there's anyone selling anything you want cheaply or if anyone needs a package delivered to somewhere that's on your way. Later, you can take people but you have to have made enough credit to buy a passenger cabin first.

- Select the old Blackelk Bulletin Board (F7) and scroll down through the list to see if anyone is selling anything exciting or if they have something small they need transporting. You can stick a small package under your Commander's seat without anyone taking any notice and it doesn't detract from your overall cargo space — a useful way of making a credit or ten.

If anything takes your fancy, click on the button next to it to set up a direct link with the advertiser if you decide to take something on, click on 'OK — Agreed' and the item (or the passenger) will automatically transfer to your ship before take-off.

Newspapers Space is a big place full of people doing strange and marvellous things. To find out who's doing what to whom and who you can sue for libel this month (not to mention reading a flurry of the latest personal ads and some particularly adventurous cocktail recipes), you need to read the newspapers. These are in the Inventory Panel (F2), on the button marked Newspapers (F5).

They are: Frontier News, Universal Scientist, Imperial Herald, Federal Times and RIG (Random Intergalactic Gossip)

Your New Rossyth Package includes a starter subscription to all five journals. When this runs out, you will need to re-subscribe through the Bulletin Boards.

You can get most journals on an Alliance world so this is the place to subscribe and we strongly recommend that continue to take all five, if you want to be apart of the real world.

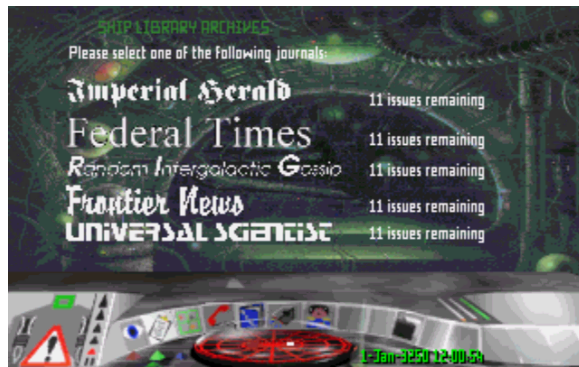


Figure 9: Newspapers



Figure 10: The Stock-market

It's worth skimming through the journals while in dock in case there's anything interesting going on in the worlds around you that might influence your choice of destination.

Fuel & Trade Items (F8) You need to visit the stock-market to buy and sell anything.

- Select the Stock Market panel (F8) and scroll down the list. (See Figure 10)

First thing you need to do is to buy enough fuel to get you to where you want to go. in this case, 1 tonne will do and you don't want to fill up valuable cargo space with redundant fuel so don't buy more than you need.

Scroll down to the 'Hydrogen Fuel' on the list and click once on the button next to it. The list on the right shows that you now have one (1) tonne of fuel in your cargo hold.

Now you have to decide what to take to Argent. You are restricted at the moment by your relatively low credit rating (none of the traders, sadly, is likely to offer you a lease-hire agreement on their stock — your chances of dying in space are too high) and your limited cargo space. You have to pick something



Figure 11: Paying a fine, for discharging a weapon in public

that is exported by Gateway and imported by Titican and that you can afford. We strongly suggest that you go for *Grain* on this particular journey.

- Scroll down the list and buy 4 tonnes of grain to take with you to Titican.

Don't worry if you buy the wrong thing by mistake — as long as you sell immediately, the price won't have changed and you won't lose any credit. Your remaining cargo space and credit rating will be shown on the lower left of your head-up display.

If you want to fill up the rest of your hold with something fairly cheap, go for liquid oxygen.

Take a look at the prices of Gateway's major and minor imports so that you can compare them with the trade prices at Argent when you get there.

- If you want to check out your cargo, take a look in the Ship's Inventory (F2) at the Cargo On Board (F10)

Police Just as a precaution, check your police record. You may have unpaid fines you don't know about. (It would be a pity at this stage as you have no credit to pay them with. . .) Launching with unpaid fines upsets the Police more than almost anything else, so it's well worth getting in the habit of checking with the police by selecting the Communication Panel (F4) and then the Police Contact panel (F10) to see if they think you owe them anything.

1.5 Getting out of here

There are four basic steps to space flight and all are covered in a great deal more depth in the following two chapters.

1. Permission to launch
2. Launching
3. Hyperspace
4. Landing



Figure 12: Launching from Old Blackelk

Permission to launch Make sure that the console on the far left of your Command Console is in the Navigation Console setting, rather than the Battle Console setting. If you are unsure, select the View Panel (F1) and then the Battle to Navigation panel (F5) until the green targeting square is at the top of the Console. If it's a red circle, click again.

The red warning triangle is there to tell you that you don't have permission to launch yet.

- To request permission, select the Communication Panel (F4) and then the Launch Request panel (F5).

The scrolling panel on the far right of your Command Console will let you know if you have permission and the warning triangle will disappear from the Navigation Console.

Launch To launch, either

- engage the engines by touching the engine icon on the Navigation control panel, *or*
- Press the TAB key.

Your vertical thrusters will take you straight up until you are safely off the launch area.

Please don't hang about, as there are other ship's waiting to launch after you. Some of them are bigger than you are and are likely to knock you out of the way if you are obstructing their space.

- Raise the nose of your saker by moving the mouse back while holding down the right mouse button. Watch the two cross hairs move apart and then come back together as your direction of travel and direction of view change.
- Engage your main engines by pressing the ENTER key for a few seconds and you will begin to leave the atmosphere of Hope.

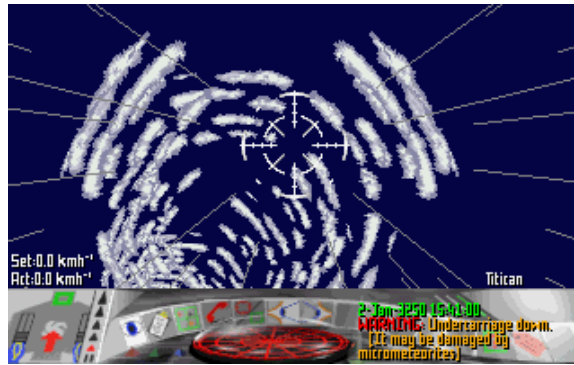


Figure 14: Entering hyperspace

Easy driving — the autopilot Your automatic pilot, included in your Saker Mk III starter kit courtesy of New Rossyth Shipyards, is designed to take a lot of the strain out of space flight.

To use your autopilot, you need to select a target. You can do this in View Mode (F1) or in any of the map modes (F3).

- The simplest method, if you have it installed, is to use the innovative new Navigation Computer from the New Rossyth technologists. While in View mode (F1), press ‘N’, click on something to select it as your target. The navigation computer will then automatically engage your auto-pilot.
- Otherwise, go to the Orbital Map (F6) and zoom in (F11) until you can see the planet of Jennings’s Hollow quit clearly. If you need to rotate the map, hold down the right mouse button and drag your mouse. (See Figure 15).
- Click on Jennings’s Hollow to centre it in the screen, then Zoom In (F11) again until you can see the orbital space station of Argent. If the station is behind the planet, rotate the map using the right hand mouse button to bring it back into view.
- Now click on the green Navigation Target Control square at the top of the Navigation Console (to the bottom left of the screen), or press ‘T’. Then click on the orbiting space station ‘Argent’ to select it as your autopilot destination. The homing square will lock onto your target to let you know that selection has been successful.
- Now return to View Mode (F1) and engage your autopilot by touching the red arrow on your Navigation Console (or press the TAB key).

The blue Autopilot Warning light will light up to let you know that the autopilot has been activated.

Unless you turned targetting tunnels off in Preferences, there will be a series of green concentric squares focusing down on Argent. (See Figure 16). These are called ‘targetting tunnels’.



Figure 15: Click on Jennings's Hollow to centre it on your screen

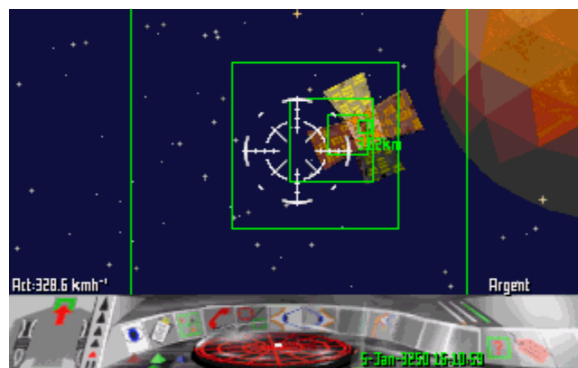


Figure 16: Targetting tunnels, on approach to Argent (Titican [-2,5])

Stardreamer time control Time passes enormously slowly in space. That is to say, it's probably ticking over at much the same rate as normal, but there aren't any telegraph poles to count to help you pass the time.



Instead, the engineers of the New Rossyth shipyards have provided you with the StarDreamer Time Control to alter your perception of life and space. The StarDreamer is located on the right hand edge of your Navigation Console (left of screen).

The small arrow immediately above the pause button gives you a normal rate of time. Each of the arrows above it increases the apparent passage of time by a factor of ten so that the fourth icon at the top is accelerating time by 10,000 times. As well as clicking on the panel, you can use the number keys '6' through to '0' as a shortcut.

- Click the top arrow now (or press 0) and watch the distance to Titican shrink in front of you.

Your on-board computer will return you to normal time either if you are under attack or when are nearing a space station or port.

Now is the time to catch up on some light reading. Take a look in the Ship's Inventory (F2) at your Journals (F5) and see what's been happening in the worlds around you.

Docking This is covered in a great deal more detail in Chapter 3 'Flying a spacecraft' on page 37. But for now, just let the auto-pilot take the strain.

- Your auto-pilot will automatically request docking permission and will take you into the heart of the space station. If you don't want to watch, operate the StarDreamer Time Control again and you'll be brought back to standard time when docked.

Congratulations, Commander! You have just completed your first space flight.

1.7 On landing

Your check-list once landed goes like this:

1. Bulletin Board
2. Stock-market

Bulletin board Check out the BBs (F3, F7) to see if any of the local dealers is offering astounding prices for the goods you have just brought. You may well be able to sell some of your cargo above Stockmarket prices.

Stock-market If you haven't sold everything on the Bulletin Boards, go into the Stock Market (F3, F8) to sell your remaining goods. Your new credit rating and the amount of cargo space you have left are shown on the lower left of your head-up display. It's worth buying fuel now (and re-fuelling) before you check out a new system to visit.

1.7. ON LANDING

15

Happy Flying, Commander.

All space is yours.



Chapter 2

The controls

2.1 Welcome to your Saker Mk III

“Just about the most bouncy ship we’ve ever hopped with.”

“Spins like a dream.”

“Cruises like a comet with the kick of a solar flare.”

These are just some of the things that have been said about the Saker Mk III Fighter, and we are sure that you will want to say many more once you have rocketed your way around the galaxy.

Welcome to the world of the Saker. Climb in through the unique triple locking entry hatch. Stroll around the compact living quarters, where you’ll find just about everything you could possibly need from a sleeping shelf to a heating appliance. Spend some time flipping through the Paradise-View Digital Window catalogue, until you find the view from your bed that sets you most at your ease. Run your fingers along the fine lines of the carpet ridging, and stare in awe at the artistic positioning of the rivets along the corridor roof. Say to yourself, “this is a ship with real class.”

Step forward in the cockpit, and take your first look at 34th Century technology available now, in the middle of the 33rd! — the Plastichrome panelling, the hidden laser mood enhancers. And our pride and joy, the Liqui-Couch, the galaxy’s first ever solid liquid control seat: utilising 9th Century technology, borrowed from the same Earth travellers who built the Dead Sea, our technicians have come up with the first seat you actually sit in, rather than on. A semi-liquid base, filled with an almost infinite amount of miniature solid particles cushion you and keep you buoyant, leaving you almost floating in your seat. Not only is this an incredibly comfortable way to fly, but it also acts as wonderful personal suspension for those bumpy atmosphere entrances.

Make yourself comfortable, and get ready for the flight of your life!

2.2 Ship instrumentation, and how to use it

The Saker Mk III craft has been constructed with the knowledge of two hundred years of ship design, and has to be one of the most user friendly ships around. Some of you might remember the days when you had to work your way through



Figure 17: Your Saker Mk III

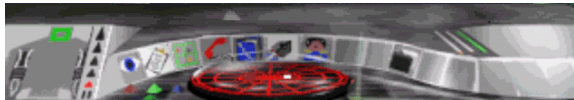


Figure 18: Command console

seven turbo lifts and five decks of a ship to find out what was flying behind you, and changing from standard drive to hyperdrive was the work of seven robots!

New Rossyth Shipyard remember those terrible days only too well, which is why we were the first company to come up with the revolutionary Command Console — the only ship control room that allows one person to do just about anything they want, with everything within arms reach.* Comfort and convenience go arm in arm in our cockpits.

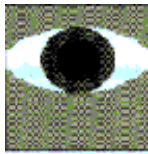
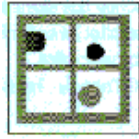
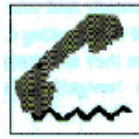
Figure 18 shows you the layout of your Command Console. Anyone used to flying with the decrepit Falcon De Lacy cockpit (the ageing unit that meant you had to repeatedly hit switches to ‘cycle’ through the various jobs they performed) might leap a mile at the number of panels on the new layout, but bear with it for a mere moment, and you’ll find that it’s easier to use than a Titan cattle Wedge.

Before you actually touch any of the panels, remember the drill. Adjust the seating and any other supporting paraphernalia so that your view from the cockpit window is unobstructed, and that you have easy access to all controls, food containers and escape hatches. Check around you to make sure you have no stowaways, and that there are no assassins/small furry creatures/areas of strange coloured gas anywhere near you. With the security drill out of the way, you can take a look at the controls.

On the very left of the control panel is your Dual-Console. This shows either your Battle Console or your Navigation Console - never both. We’ll have more on this in the next chapter.

To the right bank, ranged along the Main Console, are the four Primary Panels:

*This offer only applies to lifeforms with arms longer than 26 inches, or indeed lifeforms with arms. Talk to your dealer about prosthetics if you are having difficulties.

View Panel
(F1)Inventory Panel
(F2)Map Panel
(F3)Comms Panel
(F4)

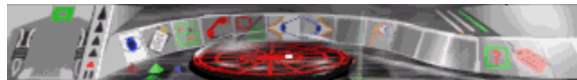
These four will not change at all during your time in the ship and are used to control the remains of the console to suit your immediate requirements. To see what we mean, touch each of the four in turn now and watch the array of panels along the right of the Main Console change with each one.

Don't worry about creating havoc now — as long as you only touch those four, they won't do anything either to your ship or the innocent bystanders who have gathered to watch you make your first flight.

Now that you've had time to watch the bright lights and flashing colours, we'll spend the next few pages looking at the various controls, what they do and how to reach them. Once you've familiarised yourself with the layout, we can go into procedures and routines in more detail, until you find yourself completely proficient in controlling your new craft.

2.3 The View Panel (F1)

With the new, improved Command Console, you have access to a wide variety of different ways to view the universe. No longer do you have to be content with a mere forward view and a barely adequate radar panel. Thanks to this little array, you can see the space around you like never before, as well as perform some very simple, but vital, ship navigation commands.



The *View Panel* (F1) is the first of the Primary Panels. Touch this now and the seven panels ranged along the right of the Main Console will deal with the various view modes.



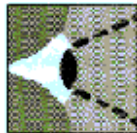
Battle to Navigation Toggle (F5) With the introduction of the BTN Code (Battle To Navigation), all craft are now required to have a Dual-Console which house both your Navigation controls and your Battle controls. Both occupy the same location on your dashboard thus making it impossible for the novice Pilot to open fire on a space station when they are attempting to engage the automatic pilot.

Clicking on the Battle to Navigation Toggle switches the Dual-Console between its two modes. Try it and see. The one with all the weapons is for self defence and similar emergencies, the one with all the flight controls gets you in and out of trouble.

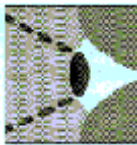
View Modes You can toggle between the various view modes available to you by continually pressing the Primary View Panel (F1). Alternatively, you can click on any one of the panels directly to bring up that view.



Figure 19: Using external view to watch the gas giant Aster (Ross 154 [-1,0]) rise over the horizon



Front View (F6) This is the standard view from the ship, where you look forward out of the main view screen. You will use this one a lot.



Rear View (F7) When reversing into a system, remove your seat-belt, place your right hand on the steering column at 12 o'clock, and look over your left shoulder out through the rear view window. Alternatively, touch this panel and get a heads-up display of the view from the rear of your ship. Most useful for taking a quick look at the bandit on your tail.



Turret View (F8) Some craft have turrets, which give you a much wider view of the system around you. Selecting this panel gives you a periscope view through the turret windows. If you have several turrets, it will cycle you through each of them in turn, starting with the one you used last.

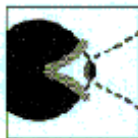


External View (F9) This lets you use the ship's computer to build a three dimensional image of your craft and the things around it, giving you a novel, and sometimes incredibly useful view of your surroundings.

Note: The cursor keys (arrows) on your keyboard will allow you to alter your angle of view and the + and - keys zoom you in and out. Watching your ship fly against the rosy glow of the dawn on an ice world is particularly spectacular in this mode (see Figure 19).



Figure 20: The Navigation Computer at Gateway



you!

Missile View (F10) Sometimes the external view isn't enough. When you need something a little extra... This option allows you to fire a missile with a camera mounted on it, for when you want a missile's eye view of an attack letting you watch a battle from the comfort of the driving seat. Ideal for the bloodthirsty among

you! Missile cameras need to be bought, and trying to use this option when you don't have the optional extras will only result in a bruised ego.



Combat Computer (F11) Sometimes when in combat, particularly against other ships, the small scanner at the bottom of the screen just isn't enough. What happens when you want a larger picture? When you want to see just who the ships are, what their allegiance is, and how much bounty is on each of them? For just a few credits, you can get your hands on a Combat Computer, which works in much the same way as the scanner, except that it fills the screen and gives you all the information you could need on a craft at a glance.

Note: No ships have this as standard. If you are wondering why you don't have the option in your command panel, then you probably don't have one of these on board. Either that, or it wasn't fitted at a registered New Rossyth shipyard.



Escape Capsule (F12, X) This is your most valuable life-saving item and so it is positioned where you can see it in flight and hit it without having to think. Touch this key and your entire cabin elects itself from your ship (with you inside) and takes you safely to the nearest system. (See later for full details of the New Rossyth Escape Capsule Insurance offers).

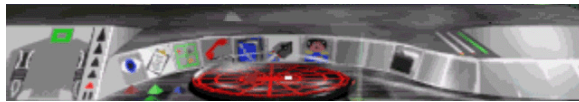


Navigation Computer (N) Yet another time-saving device from the wizards at the New Rossyth Shipyards. Your Navigation Computer will present you with a list of all suitable docking sites within your current system. Clicking on one of these automatically selects it as the target for your autopilot and activates your autopilot drives. One click and you can sit back and enjoy the ride!

Note: These don't come cheap but are well worth saving up for.

2.4 The Inventory Panel (F2)

Your on board computer holds all sorts of information on you and your ship, and this is where you can get access to all that information. If you want to know how many items of food you have on board, how much fuel you have left, what the papers say, or just what the names and destinations of any of your on board passengers are, then you're a single press away from all of this and much, much more.



The Inventory Panel is the Primary Panel second from the left (F2). The Main Console panels it controls, from left to right, are:



Newspapers (F5) Trips in space might seem very romantic and exciting, what with pushing back new frontiers, exploring strange new worlds, and seeking out new life forms and new ways to break the speed of sound, but any seasoned traveller will tell you that life on the solar wave can be very tedious at times, so what better time to catch up with current affairs and a bit of light reading. You can buy monthly journals at any space stations, and these are stored on your computer for you to read later at your own discretion.

There are currently five well known publications stocked around the galaxy:

- *Imperial Herald* — available on all imperial Stations;
- *Federal Times* — available on all Federal and most Alliance stations;
- *Frontier News* — available at all Alliance Stations;
- *Random Intergalactic Gossip (RIG)* — available practically everywhere;
- *Universal Scientist* — available almost everywhere.

The papers cover all the important events throughout the Galaxy but each has their own individual editorial slant depending on whether or not the reporters and staff editors are likely to be consigned to a life in the Imperial slave pens for expressing the wrong point of view. Be prepared to read between the lines to find out what's really going on.

It pays to have subscriptions to more than one journal, if only to get a decently balanced viewpoint of the good and the great in this crazy, mixed-up Galaxy.

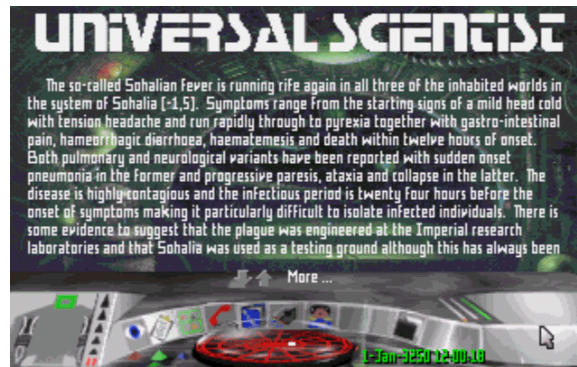


Figure 21: Journals: be prepared to read between the lines

Don't worry if you miss an issue while out of a particular zone of the galaxy as back issues are freely available.



Ship's Equipment (F8) This is the screen that tells you everything you need to know about the ship you are flying, from the condition of the hull to the number of guns and other equipment on board. Like most of the information screens, it is projected onto your translucent head-up display, so don't get confused if you can still see your cockpit when reading it. Oh, and please don't throw anything at it if you are upset about the state of your shields. This will damage the glass screen, which we may remind you is not covered by your ship insurance. For further information on the equipment available to you at the shipyards, see Chapter 6 'Equipment and Ships' on page 165.



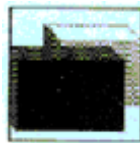
Commander Profile (F7) For the Paranoid (or the simply curious) amongst you, this is where you can look at your own records and find out what everyone else already knows about you: your name, your rank in the various military forces, your Elite rating, your record with Interpol, Federal Security Service and Imperial Guard and the medals and permits you may or may not carry.



Crew Roster (F8) Those of you who stick to flying single seater fighters are never going to need this. If, on the other hand, you have ambitions to join the 'Panther Owner's Group' or just to fly any one of the super-freighters available to those with more money than sense, you are going to need to hire crew. This roster shows you who you already have on board and will enable you to predict when and where a mutiny is about to occur.



Passenger Roster (F9) Running a taxi service can be a very demanding job, especially when most of your clients want to go a little further than ‘the corner of Tottenham Court Road[†]’. This screen will show you exactly who you have in the luxurious comfort of your passenger cabins, their destination, and most importantly, how much they have left to pay you! Passengers advertise on the Bulletin Board and will offer varying amounts of cash, depending on how dangerous the trip is likely to be. Beware of extraordinarily high pay-offs. You may find your ‘hitch-hiker’ has friends with bigger guns than yours who want to give you a present you’ll never forget. Some passengers can be persuaded to pay before you take them — always helps to make ends meet, and useful if you end up in an escape capsule and they end up floating in the vacuum of space...



Cargo on Board (F10) In the early days of the Elite federation, one of the only ways to make any kind of money was by trading — ferrying commercial goods from one planet to another in search of a better selling price. This screen shows you the amounts of all the goods you are currently holding, but not how much you paid for them, so it’s a good idea to keep a note of your ins and cuts, so that you don’t end up selling them at a loss.

Refuelling is also done on this page. Your fuel gauge is the green bar on the right hand side of your Command Console. Remember to refuel before it drops off the bottom of the scale! Click on the refuel button to transfer spare fuel from your hold to your tank in one tonne units. You can’t shift fuel in fractions of a tonne so if your tanks half full when you re-fuel, the extra half tonne will be lost.



Outstanding Contracts List (F11) No self respecting pilot would refuse a post in one of the military agencies, even as a free-lance combateer, so this screen should come in extremely handy. It lists all the jobs you have currently taken on, the time and date they are to be carried out, where to go when you have finished them, and how much money is currently outstanding on each job. For more information on military activity, see Chapter 4 ‘Careers’ on page 77

Some contracts are more dangerous than others

[†] Ancient Earth Saying, now in common use as meaning a very short distance, but one that takes a very long time to get to



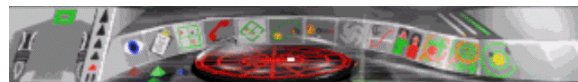
Figure 22: Sector Map — Titican is highlighted by a cross



Mining Installations (F12) The last screen, but by no means the least, shows you everything you need to know about your mining operations. The galaxy is a huge place, and the planets with the best ores are systems apart, so it's all too easy to lose track of where you have actually placed your MB4 mining machines. This screen shows you exactly where they are, what the status of them is, and if you want it can program the autopilot for you and take you straight there!

2.5 The Map Panel (F3)

Finding your way around the galaxy can be a tricky and perilous affair. It's a huge place, and it can be far too easy to get lost, as many of the early travellers discovered to their peril. Bear in mind that your head-up display is two dimensional and has well-defined limits whereas space is 3 dimensional and infinite. This can be confusing at times. However, this is the 33rd Century, and thanks to the latest in on-board mapping computer systems, you should find your way around with the greatest of ease.



The Map Panel is the third of the Primary Panels and it controls the following series of panels on the Main Console.



Sector Map (F5) Touching the Sector map panel brings up a green three by three grid which divides the infinite galaxy into handy bite-sized chunks (otherwise known as sectors) each of which is eight light years across.

Your current system is marked by the pink cross. In the start position, this is 'Gateway' (see Figure 22).

The system co-ordinates defining the location of each solar system in the Galaxy are calculated using the sector system. For historical reasons, SOL is taken as double zero.

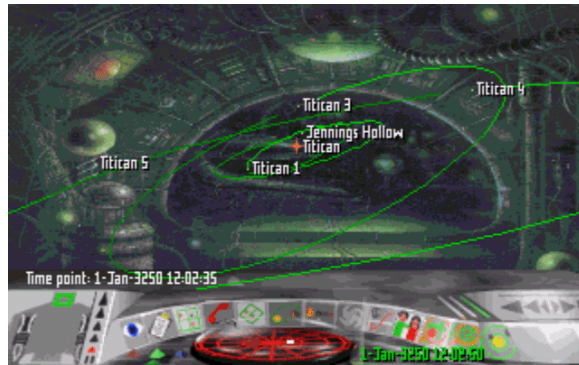


Figure 23: System orbit map

To select another system, either click on it with the mouse pointer or move the map using the arrow (cursor) keys. The newly selected system (Titican in Figure 22) is marked with a green cross. Brief details of its name, the type of star, the type of settlement (if any) and the distance from your present location are shown in the text screen at the bottom left of your console. You can call up further details of the newly selected system using the appropriate function keys.

To rotate the Galactic Map in the third dimension, hold down the right mouse button and move the mouse.

The 'C' key re-centres the grid — useful if you get space-sick and lose your orientation.

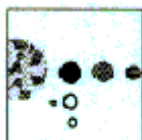
Finally, the attractive pink circle shows you how far you can go. This depends on how much fuel you have in the tank — if you haven't re-fuelled since you arrived at a system, it's going to be a fairly small circle.



System orbit map (F6) Once you have highlighted a system you wish to take a closer look at, selecting this panel gives you a real time three dimensional map of the system, with all planets and moons following their proper orbit.

Zoom In and Zoom Out function in the same way as for the Galactic Map, and the right hand mouse button to rotates the viewing angle. (See Figure ??).

Note: it is also possible to see enemy ships in the orbital Map — and to target on them using Battle Target Control on your Battle Console. Useful for planning ambushes



System info (F7) Once you have highlighted a system on the three dimensional galactic map, this panel gives you a more detailed description of the geographical and physical features of each body in the system.

An initial diagrammatic summary is given, outlining the basic system data. Click on any body in the system for more information on it.

This panel gives you more detail, for instance the name and number of major starports, the orbital period and the average surface temperature. Atmospheric type is also displayed and it is useful to make a note of any planets that have



Figure 24: The System Politics page at Titican

atmosphere as you'll need atmospheric shielding to enter any of these — see Chapter 6 'Equipment' on page 165 for more information.



Galactic map (F8) It was once said that if we knew just how small we were in comparison to the size of the galaxy, we would lose our marbles overnight. Well, we intrepid space-travellers didn't pay any attention to that, and have included this Galactic View of space, just to show you how small you are. You can zoom out to see the entire galaxy in one small screen, or zoom in to something a little more manageable. But this isn't just a pretty addition to an already incredible array of console paraphernalia. This map shows you just where in the galaxy the densest collections of stars are, and therefore where the most work and money is to be found.



System economy (F9) Speaking of money, if you want to know how the economy of a system is working, then selecting this option is just the thing you need. Highlight the system you want to look at, and then select this panel and you instantly have a readout of the things they need and the things they sell at lowest prices. The secret to successful trading is to buy low and sell high. This panel is essential in helping you to plan your trading routes with maximum efficiency.



System politics (F10) The social structure of a system is very important to the trader or Elite pilot looking for action. The structure of a system dictates everything about how that particular region of space works, from the way the police operate to the likelihood of pirates in the area. Again, this is something that needs to be used for forward planning, especially when flying a low powered ship or one badly in need of servicing. Conversely, if you are flying a little low on the Elite ladder and would like to get through the ranks quickly, then you could do worse than find yourself a nice anarchic system to go bounty hunting in. See Figure 24.



Zoom in (F11) As its name suggests, this button you to zoom in on the 3D galactic map and system maps, bringing objects closer to the ‘camera’ for better observation.



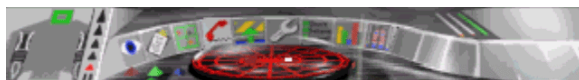
Zoom out (F12) The opposite of zoom in — this zooms you out of all map, often gives you a better perspective on things.



Destination orbital map (R) This is identical to the Orbital Map but pertains to the destination system that is currently targeted on the Galactic Map. This destination map is particularly useful for targeting your autopilot. (See later)

2.6 The Communications Panel (F4)

The Communications Panel is the last of the four Primary Panels. This is the one that handles more or less all of your communications with the outside world, be it through buying or selling goods or ship equipment, through to dealing with the police.



Touching this Panel while docked at a space station or a port brings up the following panel along the Main Console.



Launch Request (F5) Before you can leave any starbase or planet port, you need to ask for launch approval. The air and space traffic control centres have more than enough work on their plate without rogue pilots landing and disembarking willy-nilly, and you are likely to get shot down by the police should you try and leave without due authorisation. So, once you have completed your duties on the base, and have performed the security drill, press this panel to radio for an okay. Do not attempt to leave without that okay signal. (You can do it, but no-one will love you for it.) When you’re clear to launch, the red triangle will vanish from your Navigation Console.



Shipyard (F6) Most starbases and planet ports will have one form of shipyard or other, from the most basic of upgrade centres to full overhaul facilities. This panel will open a communications channel between your ship and the shipyard, and you are then led through the services it provides. See Figure 25. For more information, see Chapter 6 ‘Equipment’ on page 165 on upgrading your ship equipment.



Figure 25: Don't forget to service your ship regularly

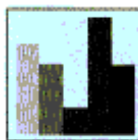


Figure 26: The Stock-market



used.

Bulletin Board (F7) As recently as fifty years ago, the bulletin boards on space stations were in their infancy. Although they were crammed with offers of work or Help, there was very little you could actually do with them. In these enlightened days, however, there is a whole range of services just waiting to be



Stock-market (F8) If your heart is in the right place (and you might want to get hold a copy of Haynes intergalactic Anatomy to make sure) then you will start your career as a pilot in trading mode, and this is where the exciting world of buying low and selling high happens.

On your screen you will see a list of all the items currently for sale in the system, along with the prices they are being bought and sold for. Clicking on the buy or sell button next to each name moves cargo to and from your ship, and your credit rating is adjusted accordingly (See Figure 26).



Police (F9) The laws of the galaxy are strict - very strict indeed, and as a result everyone will break the law sooner or later. This is where you can pay your dues to society without all the pain and anguish of being blown to bits in the sky, usually within full view of your family and friends. Here you can pay any outstanding fines. As an alternative option, you could always consider bribery...[‡]



Ship-to-ship Messaging (F4) You can't get ground-based communications while in space so touching the Comms Panel while in flight will operate your ship to ship messaging system. With this you can make contact with the pilot of any craft within range. At certain points in your travelling life, this will be necessary.

Ship to ship radio was once deemed to be a good idea, but cultural and racial boundaries meant that the chances of finding another pilot in the size of the galaxy who could understand your dialect were fairly low. Instead, communication computers were installed on all ships, carrying a number of stock phrases and questions, which you can beam to the other ship in the conversation, which is then decoded to their own language. Their answer is translated and sent back to your ship instantly, so conversation of a sort is possible. Selecting this panel will open up your inventory of phrases on the main display. Select any one to beam out and the answer will return within moments.

Conversation is limited to a few stock phrases, to the relief of the Police who don't like the space bandwidth being jammed by a couple of nerds who 'just met up and realised they had the same taste in music'. If you want to make friends, do it at the space station.

2.7 The Scanner

The next on-screen control to take a look at is the scanner — that large bubble in the middle of your cockpit. If you have never flown before, then you won't know that this is in fact a 3D representation of the near space around you, showing you the location and size of all objects — ships, asteroids, space stations and others within range.



To read the scanner, all you need to remember is that the line running vertically from the centre of the scanner is what you can see directly ahead of your ship. All of the objects on the scanner are marked by short horizontal lines along the top or the bottom of a vertical line. If they are at the top, then the object is above your line of vision, and conversely if they are on the bottom, then they are below. To check the size of the opposing object, use the colour chart in Table 2.

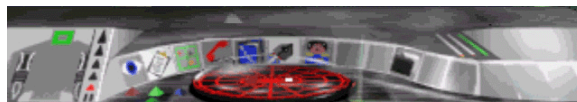
[‡]This is, naturally, not a recommended practice and something we do not condone at all. In fact, we are completely against it so we'd rather you didn't mention that we told you. Ever. Please.

Blue:	1–15t
Green:	16–31t
Magenta:	32–63t
Red:	64–111 t
Orange:	112–159t
Yellow:	160–207t
Grey:	208–299t
White:	300t+

Table 2: Ship colour codes for the scanner

2.8 Fuel Gauge and Temperature Gauges

The three gauges on the right hand side of your Command Console refer to: cabin temperature, laser temperature and fuel.



Cabin Temperature The orange gauge on the left of the three gives you a continuous read-out of your cabin temperature and helps your ship's computer to keep you in the thermo-neutral range. If you go too close to something seriously hot (like a star, for instance) you will notice your cabin temperature rise until the point where you boil alive and cease to notice anything. Your ship will melt shortly thereafter which would be a tremendous loss to the Galaxy and something you should try to avoid.

Laser Temperature The red gauge in the centre of the three gives you a continuous read-out of your laser temperature. Lasers that over-heat in battle will cut out until they have cooled down - with potentially fatal results. On the whole, beam lasers overheat faster than pulse lasers but a Laser Cooling Booster can help to reduce this.

Fuel Gauge The green gauge on the right hand of the three gives you a continuous read-out of the fuel in your tanks.

Remember that just buying fuel isn't enough, you need to re-fuel by using the re-fuel button in the Cargo-on-Board in the Ship's Inventory.

2.9 Warning Lights

There are three warning lights on the left of your scanner. They are, in order:

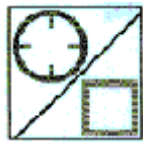
Attack Warning The red warning light on the left will glow when your ship is under attack.

Undercarriage Warning The green light in the centre will be lit when your undercarriage is *down* and safe to land. Note that if you leave your undercarriage down when you are in space it is liable to be damaged by passing debris. Make sure it is raised while you are in flight.

Autopilot Warning The blue light on the right of the three will light up when your Automatic Pilot is active and is flying your ship.

2.10 Dual Console

The Dual Console on the far left of your Command Console is one of the greatest innovations of the New Rossyth Shipyard engineers giving you control of *either* your Battle Console *or* your Navigation Console.



The BTN panel (F5) in the View Mode on the Main Console toggles between these two modes. If you intend engaging in battle with anything at all, practice making this switch until you can do it in your sleep. As long as you don't fire anything while you're at it, you're safe to play.

Navigation Console

This is the one that gets you places. From the top down, the Navigation Console contains the following:



Navigation Auto-Target (T) This is the small green square at the top of the Navigation Console. Touch this to make the centre of your laser sights 'hot' — as shown by a small green Target square. Your on-board computer will switch to 'seek' and the next object to pass through the centre of your sights becomes your active target.

The Navigation Auto-Target blinks while seeking and there is an audible bleep to let you know when it has successfully locked onto a target.

Alternatively, to target manually, left-click on the object.

A targeted object will be shown with a green square, and gives a continuous range read-out either in astronomical units or in kilometres.



Autopilot Activator (TAB) Your Autopilot Activator is the smart red arrow just beneath the Navigation Target Control. The arrow appears as soon as you have selected a suitable non-combat target.

Note: If it doesn't, you either don't have one fitted or it has been blown to smithereens by the pirates — tough luck.

To engage your Autopilot, click on the red arrow — the blue light to the left of your scanner will glow to warn you that you are no longer flying under manual control.

To switch the Auto-pilot off, click again on the red arrow or, if you want to select another target, click on the green Navigation Target Control square. Your autopilot will go on stand-by while you select another target.

The TAB key cycles between all three flight functions — manual, fly-by-wire and autopilot.



Launch Warning The friendly red triangle with the exclamation point in the centre is a subtle hint from the port Authorities to let you know that you haven't requested launch permission yet. Trying to take off now will land you in serious trouble.

The triangle will disappear as soon as you have gained permission.



Hyperdrive Activator (H) The hyperdrive activator will appear when you have selected a suitable hyperspace destination. Clicking on this will engage your hyperdrives and take you through that neat little wormhole in space to your chosen destination whereupon the activator button will clear from your screen

until you set the next target.

Note: It is generally considered antisocial to activate your hyperspace drives when you are too close to a planet or a space station. As a result, all ships are fitted with a regulator that prevents the hyperdrives from engaging too close to human habitation. Your Hyperdrive Activator will therefore not appear until you are at a safe distance.

Remember: your Hyperdrive Activator will only appear if you have a valid destination selected and have functional hyperspace drives fitted to your ship.



Undercarriage (U) The two wheels on either side of the Navigation Console above the engine flames control the undercarriages for your ship. Touching either of them raises or lowers the undercarriage.

The green light on the left hand side of your desk will be *lit* when the undercarriage is *down* and safe for landing.

Note: When flying through space, your ship will pass through clouds of micro-meteorites. These might seem harmless enough in themselves, but if you pass through them at high speed, any part of your ship that isn't shielded — and as a general rule the undercarriage is the only part of a craft that isn't shielded — will most certainly suffer damage as a result. Make sure you have it raised when not in use



Engines (TAB) The flames below the undercarriage panels switch your engines on and off. Touching either switch activates all engines and will either lift you off the launch pad or propel you through space.



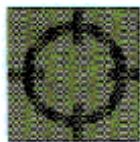
Stardreamer Time Control (6-0) Your StarDreamer time control resides on the right hand edge of the Navigation Console. The smallest arrow at the base keeps you in standard Galactic time and is essential for Combat. (Thus your on-board computer always returns you to this setting when it receives warning of an attack from the radar sensors).

The other settings increase the apparent rate of time progression in steps of ten from ten to ten thousand times normal time.

Remember to raise your undercarriage while in flight

Battle Console

This is where the action happens. Remember, you get here by touching the BTN panel in the View Mode of the Main Console or by pressing F5.



Battle Auto-Target (T) The red circle at the top of the Battle Console is your Battle Auto-Targetting computer, if you have one fitted.

Touch this to make the centre of your laser sights ‘hot’ — as shown by a small red Battle Target circle. Your sights will actively seek a target, and the next to pass through the centre becomes your active target.

The Battle Auto-Target blinks while seeking and there is an audible bleep to let you know when it has successfully locked onto a target.

The red target circle will then lock onto the current target and there will be a continuous range read-out to show you the distance between you and your opponent.

Alternatively, you can target a ship manually by left-clicking on it.



Missiles and Mines (M) The missiles and mines on board your ship are shown in an array on either side of the Battle Console.

When you have selected a Battle target, touching any missile will fire it *immediately*.

Note: Do *not* experiment with this while docked unless you want to cause untold havoc and make a lot of enemies very quickly.



Hyperspace Cloud Analyser (?) If you have one of these, the panel in the centre of the Battle console will be lit.

To activate it, target the hyperspace cloud of a departing ship with the Battle Target Control circle and then touch this panel.

Your on-board computer will analyse the hyperspace cloud ahead of you. You will be given a full read-out of the ship's mass and the exact Galactic Mean Time and date at which it will arrive at its destination.



Chaff Touching the chaff panel releases a cloud of chaff designed to confuse the radar and missiles of attacking ships. It's one heck of a lot cheaper than an ECM and doesn't drain your ship's energy units. It doesn't work quite as well but there's always a downside to everything.



ECM (E) The panel at the foot of your Battle Console activates your Electronic Counter Measure unit (either Standard or Naval) and will get you out of all kinds of trouble.



Energy Bomb (B) If you have one of these on board, touching this panel will activate it immediately. No need for time-consuming targeting. Useful, huh? Unfortunately, now that most ships have shield generators, energy bombs aren't as destructive as they used to be — although a well-shielded ship will be damaged when you let off the bomb, it won't be destroyed.

2.11 Options

To get to the Options screen, press ESC twice. There you can alter graphics details and sound. Here are some extra options:

- Holding SHIFT-v in the intro when the ships are being attacked displays the version number.
- When you die, if you press '5' then you should be taken to the 'Load Commander' screen. Sometimes, pressing '4' will load the last saved commander, but not always thanks to our invertebrate, chitin bodied friends (bugs).
- *Different start locations.* If you press '1' during the intro, you will start in Ross 154 [-1,0] with 100 credits and an Eagle MK I. Press '2' to start at Olympus Village on Mars [0,0], and '3' to start in a Cobra Mk III at Lave [-3,-6].
- You can change your name from Jameson to whatever you like (provided it isn't longer than 8 letters...). Press escape twice during the game to get to the options screen, and click on where it says 'Jameson', and enter whatever you want.

- You can hold down SHIFT whilst using the cursor keys in the sector map to scroll quickly.
- PrntScrn will copy the current screen to a .bmp file in your First Encounters directory.
- Using the buttons 1,2,3 or 4 in a space station will select that menu option, some of the time.

Conclusion

This concludes the tour of your ship controls. Experienced pilots should now be able to buckle down and get on with their lives. New pilots who need a hand getting off the ground will be happy to know that this manual contains a full course of driving lessons in the next chapter.

Chapter 3

Flying a spacecraft

The Saker is a surprisingly easy craft to fly, especially when you consider the enormous power-to-weight ratio it gives you. It offers astounding acceleration with the kind of braking power that kicks in where it counts — right in the heat of battle. This compact and lightweight ship is highly manoeuvrable, even in slingshot, and the controls are laid out in such a way that even a novice can handle it with some degree of skill. That isn't to say that you won't need practise on the various manoeuvres that come in to play in your every day flying, but within a matter of weeks you will start to wonder why you didn't take up flying sooner

3.1 Basic flight controls

Your Saker Mk III sports no fewer than seven separate rocket engines dotted around the frame of the craft. In simple terms, these are arranged with the single main engine at the rear of the craft, to provide the forward propulsion systems; two rockets of lesser strength mounted on the front to provide your retro rockets, which will decrease your speed when travelling forward, or push you into reverse from a standing start; and one rocket on each side around the yaw to give you movement to the left, right, up and down.

In days of old, you would have needed to fire these rockets manually, which made tight cornering a tricky business, let alone reversing into a small space. Nowadays, all of your rockets are controlled by the computer system, which in turn is linked to a simple console interface.

- **To climb:** Hold down your right hand mouse button and pull the mouse back.
- **To dive:** Hold down the mouse button and push the mouse forwards.
- **To yaw left or right:** Hold down the right mouse button and move the mouse to left or right.

With the engines on *manual*, pressing the ENTER key fires the rear rockets and accelerates you forwards. Holding down the right SHIFT key fires the retro rockets, slowing you down. Keys on the numeric keypad control the individual

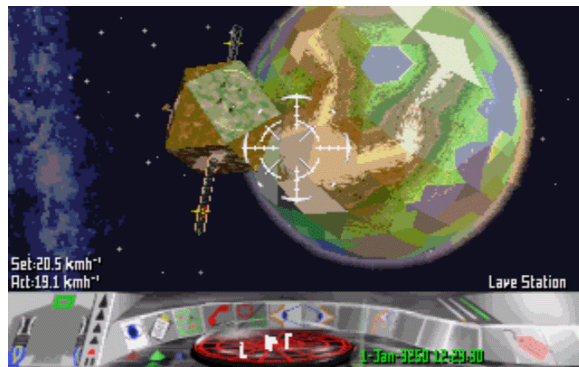


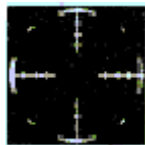
Figure 27: Approaching Lave station

thrusters. This manual mode can be very handy while scooping up cargo items, or in combat. See ‘Manual Flight’ on page 73

With the engines on *fly-by-wire*, these two keys alter your *set* speed. Your on-board computer will then take control of your ship’s engines and attempt to bring your craft to the speed and direction you have selected. Your set and *actual* speeds are shown in View mode. See ‘Fly-by-wire’ on page 38.

With the engines on *autopilot*, none of these controls have any effect. The autopilot will control all throttle and navigation functions, and fly towards the target set by you. When the target appears to be a Starport or orbital station, the autopilot will attempt docking/landing.

You will notice that when in Forward View that there are in fact two sets of cross-hairs shown on your head-up display:



One of them shows the direction your ship is *facing*, and is always positioned dead centre of the display. (This also functions as your laser sight and is used by both the Navigation and Battle Target Controls to seek a target.)



The other, composed of diagonal lines, shows the direction your ship is *moving*.

If the two sights are aligned (see Figure 27), then you are moving in the direction that you are facing.

You can easily judge which way you’re flying, by the space debris flying past.

3.2 Fly-by-wire — an idiot’s guide

There is no gravity in space: therefore your ship will drift if you fire any of the engines from a standing start. You can’t change direction in a hurry like you can in a ground based craft. To help you understand, try this little example:

Imagine you are flying forward at a speed of 1000 Kilometres per hour, and you decide you want to change your bearing by 25 degrees. For a start, if you

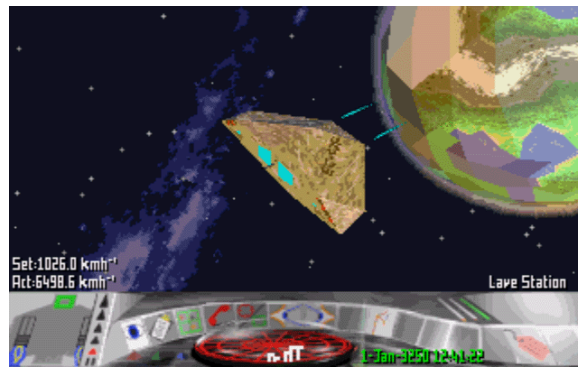


Figure 28: Using retro-thrusters to slow down

are flying at a steady 1000kph, then you will have no engines firing. The rear engines will have been firing until your speed reached 1000, and then cut out to let you drift at that speed. To change direction, you will need to fire one of the side rockets, curving your course. This is something that takes time - the faster you are travelling, the more time it takes. when you being flying, try turning at a very slow speed, and see how the direction and movement crosshairs more or less stick together on the screen. Now accelerate a little, and you'll see the movement crosshair follows the direction crosshair much more slowly. The faster you go, the slower it is to catch up.

Similarly, when setting your speed, you will notice that you have a set speed and an actual speed. This allows you to *set* a velocity using the ENTER key to increase it and the SHIFT key to reduce it and then the computer will fire the rockets until you reach your chosen speed. This can take some time, so beware of setting it too high as your stopping distance is generally some thousands of kilometres. (See Figure 28).

The same goes for changing direction: if you are travelling very fast, then the directional thrusters can't change your motion quickly enough.

At the very high speeds required to cross systems, it can take hours to get the two to line up, which is why so many pilots just say 'Hang the sense of it', and allow the computer to take over by getting hold of an Automatic Pilot. In the early days of the Elite federation, an Automatic pilot was a luxury owned by very few. in these star hopping days, it's a necessity very few pilots can do without. But before we can cover anything like that in any detail, we'll need to take a look at the basic flight procedures.

Note that the set speed is always shown relative to the local *frame of reference*. If you are close to a planet, then the set speed is relative to this planet. If you're close to a space station, then it will be relative to the space station.

3.3 Launching and docking procedures

All space stations and planet based docks are run by the Police's own air traffic control, and there are very strict rules that must be adhered to if you want to be able to enter a system without being destroyed the moment you enter a planet's orbit. If you are unsure of the procedures at any point, then do not hesitate to



Figure 29: Launch procedure initiated

call the local Air Traffic Control officer to find out what to do next.

Space Stations

Launching Ensure that you have enough fuel to get you to where you want to go, that you have completed all trading, picked up any packages and passengers and, most important of all, *you have paid all your police fines*.

Your Launch Warning indicator on the Navigation Console is there to remind you *not* to launch until you have permission from Space Traffic Control.

You request permission while in Communication Mode (F4) by touching the Request Launch Permission panel (F5) (or click on the button next to the first item on the list or use key 1)

Now *wait for the okay*.

When you have permission, the Launch Warning indicator will clear from your Navigation Console and you are free to launch. Press TAB or use the Engine icon on the Navigation Console.

Press the ENTER key to activate the engines and accelerate you out of the area.

If it's not working — you've pressed TAB but are just sitting there in the docking tube — check these things first. Do you have the correct kind of fuel? (Hydrogen fuel for a standard drive, military fuel for a military drive). Are your in-system fuel tanks full? (Press F3, F10, and click on 'Refuel'). Are your engines set to manual? (If so, you'll have to accelerate yourself rather than having TAB do it for you.)

Please leave the area surrounding the space station immediately, or there is a very real chance you will be rear-ended by another ship leaving the chute. (See figure 29)

Docking Slow down to a near crawl within 200 kilometres of the space station and radio for landing clearance (use the Communication Panel of F4).

If you are flying under automatic pilot, your on-board computer will automatically request landing permission on your behalf.

If clearance is denied through all bays being full, either back off and wait, or look for another site. Once you have clearance, approach the docking bay with utmost care, and at a snail's pace (about 100kph), until the magnetic cone

projected from the front of the space station orients your craft and moves you into the space station automatically. From this point your craft will be carried by anti-gravity cranes to an empty bay, where the Police may search your ship for contraband goods..

Manual docking We have found that many people have a lot of trouble docking manually, which is why we have included the official Docking Course, as used by the Imperial Navy. Follow this to the letter, and you should have no trouble at all in docking anywhere in the galaxy, legal status permitting.

Of the two forms of docking that are available, docking in space is by far the easiest — if only because when you miss, you aren't going to hit anything (nine times out of ten). That said, it's still alarming to note the number of young pilots who still manage to crash into the side of the station, missing the docking port completely. This can only be attributed to two things:

- Travelling too fast when approaching the space station
- Showing off in front of their friends.

A space station docking port is an enormous opening in the side of the station, large enough to easily accommodate two Python class cruisers at a time. All space stations are covered in signs and flashing lights to let you know where the opening is, so take some time familiarising yourself with the layout of the station in your three dimensional system map before approaching it.

When beginning to dock, the first thing to remember is to take your time. It can be a very dull and finicky process, but it is imperative to get it right first time. You don't get a second chance in this game. Slow to a crawl about 200 kilometres from the station, and cruise towards it until you are just under 100 kilometres away. Now stop completely and use the Communication Panel to radio for docking clearance. It might seem a long way away, but this way if you are refused clearance, you won't need to back away from the station.

Once you have been granted access, then crawl towards the station once more, keeping an eye out for the docking entrance. If the entrance is not facing you, then turn away from the station and cruise around it, keeping your distance from it steady. if you are flying with the station to your left, then select the External view and move the camera so that you can see to the left of your ship. When you have swung around so that the docking port is facing you, stop and turn to point directly at it.

At this point you will notice that the station is rotating around the docking port. This is to generate gravity within the station, and is perfectly normal. Cruise towards the centre of the docking port, slowing as you approach to give yourself time to make any last minute corrections. When you are satisfied that you are correctly positioned, start to make your final approach at about 100kph. As you reach the magnetic cone that is projected from the front of the station, your craft will rotate to match the station's rotation. Now the bay doors will open and you can continue to cruise into the base until the automated anti-gravity cranes take over.

The best way to practice this manoeuvre is to leave a space station, and fly away from it in a straight line for about 1000 kilometres. Now turn through 180 degrees and you should be pointing directly at the docking port. Follow the



Figure 30: Cruise towards the centre of the docking port. . .

instructions above, and you should dock with no problems at all. To further your progress, try flying away at different angles and see what happens.

Planetary docks

Launching In the same way as you would from a space station, check that you performed all the things you want to do, and then ask for clearance. Once it is granted, you have a limited time to baton down the hatches and launch from the planet surface.

This can be done smoothly by engaging your main engines (touch the engine control on the Navigation Console, or press the TAB key).

Once airborne, you will need to tilt your nose up slightly to give you lift and then increase your set speed using the ENTER key to take you away from the planet surface (because, as we all know, gravity sucks).

Engaging your forward thrust engines in this way turns off the launch-time vertical thrust, and your ship now flies as normal.

You are only allowed to fly near the planet surface for a minute or two, and failure to leave the area after take off will only result in the Police coming after you. Hovering is strictly forbidden on most worlds now.

Note: IF you have landed on an area other than a space station, you do not require permission to launch. In fact there are times when radioing information of your presence to the local police would be seriously unwise.

Docking Docking on a planet is a very tricky process, and many have died trying, either by taking too long about it and getting shot down by the Police. (Air Traffic time is very limited, as this manual has already explained), or by simply landing too hard.* Because you are landing planet side, you are given no actual help from the authorities and, unless you have an automatic pilot, this is a landing that no novice should try. (See figure 31)

Manual docking The two big problems are intrinsically connected. The first is that there is a whole lot of ground waiting to catch you if you get it wrong, and the other is that the huge amount of planet is generating gravity to help

*Or to give it its official title: crashing.

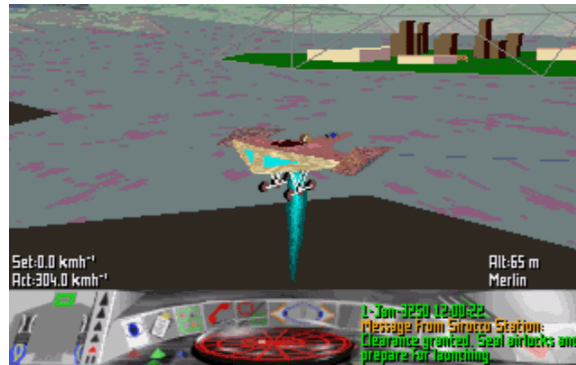


Figure 31: Launching from Merlin (Ross 154, [-1,0])

your descent to death. Landing on a planet calls for a definite light touch on the controls and fast reactions to danger. A word of warning: never try to land on a planet with an atmosphere without some atmospheric shielding in place — unless you really want to burn up on entry before you have a chance to see the base.

Your approach to landing has to be modified somewhat from that of landing at a space station, as at no point can you actually stop moving. Cut the engines, and gravity will take over, although this is something you will learn to use to your advantage, as we will now discover.

The first part of landing on a planet is easy — get into orbit. Slow down as you approach the planet, and watch the altimeter on your ship dials. When in space this will register nothing, but once you are in orbit, it will jump to an enormous number and start to descend very quickly. This is the point to start slowing down, and you'll notice that as you do, your downward velocity will slow. This is the effect of firing your retro rockets against gravity. It will help if you enter the atmosphere a few thousand kilometres from the base you intend to land on, but this isn't vital.

From this point, your aim is to get your altitude down to around 300 metres above sea level, and your speed down to about 50kph. Do this gradually, until you are used to moving in a gravity field. Now orient yourself towards the docking port and slowly move towards it, dropping in altitude gently as you pass over it. Fly away from it for about a minute, and then turn to face it, braking gently and allowing yourself to drop slightly lower. This is the point to call Air Traffic Control.

Provided you get the okay, make your final approach, slowing as you approach the base. Lower your undercarriage, and start to tip your nose back as you start to drop. This will slow your descent. As you move over the landing pad (switch to External view to check this), you should be around 30 metres above the ground and flying level. Cut the engines completely, and fire the retros to stop your forward momentum. Level out the ship (move the direction crosshairs to match the horizon). Use the vertical thrusters (4, 1) to control your descent — the fastest speed you can get away with is about 100kph. You should drift gently down to the base. Congratulations!

Some pilots prefer to go to about 100 metres above the ground in fly-by-wire

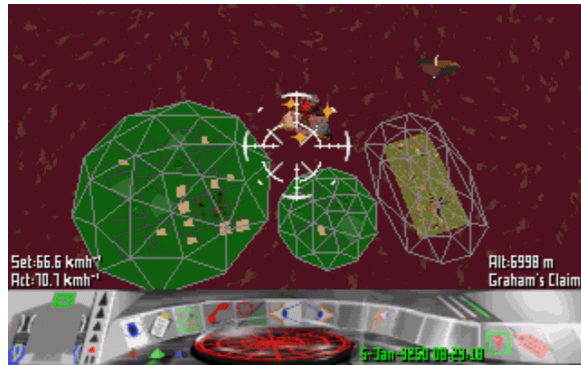


Figure 32: Coming in to land at Graham's Claim (Gateway [-1,4])

mode, and to set the speed to 0, and to just drop under gravity. The fly-by-wire mode stops you from going too fast.

Manual landing problems Do you have Atmospheric shielding? If not, you might explode due to excessive hull temperature (check your temperature gauge). How about your landing gear? Is it deployed? Is the landing site safe? Don't land on buildings, mountains, etc. Seek out a nice grassy field or desert to land on. Is your horizon straight level? You might experience trouble if you don't land 'levelled out'. If your altitude is around 1000, and all the above conditions are OK, you should make a safe landing within a minute — a little longer on low gravity planets. (Try landing on Earth's moon... it takes ages for you to descend just by gravity.)

3.4 Flying between star-systems

A word on safety before we take you out from the bases and into space itself. Space is a very big, and a very dangerous place, and you need to know how to identify hazards and potential dangers. If you aren't too proficient in combat, and want to be able to trade reasonably safely, there are a few golden rules to follow.

- Stay away from Anarchic and Feudal systems. This is where Police control is at its weakest, and you will find the greatest abundance of pirates and other space criminals.
- Try to avoid flying too far out of the system. Again, Police control is very weak out here, and so this is where most of the Pirates will stay. As the larger freight ships have to emerge from large wormholes, they need to do it quite a way out of the system, so beware of traps.
- Not every ship you pass will want to attack you, so try not to open fire unless fired upon. Many of the ships you will pass on the space lanes are travellers like yourself, and will only fight in retaliation.



Figure 33: The Sector Map

- If, however, you want to become Elite as quickly as possible (or just fancy a bit of action) then reverse all of the above rules. A Word of Warning: the Police on the richest systems are the best armed.

Maps

The galaxy is an enormous place, with over one hundred billion stars, each with their own systems and planets, thousands of which contain inhabited worlds and starbases. As you can imagine, finding your way around them could be a real trial, or at least it would be if you didn't have the very latest in computer generated and assisted star maps on board your ship. Yes, thanks to those marvellous people at New Rossyth Shipyards, you will be able to navigate between the stars with the greatest of ease, with nothing more than a sector map, an orbital map and your autopilot. Here's how to do it.

Finding a system The first thing you are going to want to do is find a suitable system to travel to. It may be that you already have to go to a certain system to deliver a parcel, or perhaps you know of a place that will pay you five times what you paid for those seven tonnes of computer hardware you have stashed in the back of your craft.

Everything you need is controlled by the Map Panel (F3), third of the Primary Panels on your Main Console.

First of all, you need the Sector map (F5) which will show you all the systems currently within range of your hyperdrive, as well as the system make up and economic situation.

Use the Zoom In and Out panels (F11 and F12) plus the cursor keys to scroll around the map until you can see the system you want somewhere on the screen. Now either click on it with the mouse pointer or use the cursor keys to centre it in your screen. The selected system will be marked with a green cross while your current system is identified by the pink cross.

Holding down the right hand mouse button allows you to rotate the map about the third axis allowing you to see which systems are in the same plane as the one you're in. The 'C' key will re-centre it in the plane of your screen if you get lost.

Check the range at the bottom of the screen to see if you have enough fuel to get you there, and then check all other information you need using the Info (F7), Economy (F9) and Politics (F10) panels.

Don't forget to check out that there are actually starbases to land on when you arrive there (How many pilots have we lost through careless hyperspacing?).

Engaging your hyperdrives



Provided you are in space and at a safe distance from the port or space station, you are now free to engage your Hyperspace drives. To do this, you simply click on the Hyperdrive Activator in the centre of the Navigation Console.

You will see the fabric of space open up before you and then close again after your entry into the system of your choice. Usually.

If your hyperdrive doesn't seem to be working, check these things. Have you selected a target in the Sector Map? Is it within range? (so that 'Fuel Required' is displayed at the bottom left, rather than 'Out of Range'). Have you gone sufficient distance from the spaceport? Also, note that hyperspace jumping is disabled when in autopilot.

Hyperspace mis-jumps Naturally, the engineers at the New Rossyth Shipyard work day and night to avoid faults in our systems. This is the real world, however, and with something as inherently unlikely as a hyperspace drive, there is always a finite chance that you will end up somewhere other than you had intended. This challenging situation is known in the trade as a mis-lump and can be used by the adventurous as a sign that it's time you got out and did something more exciting with your life.

Regular servicing of your ship will help to avoid this particular crisis but it is always a good idea to carry some spare fuel to help get you out of trouble.

Forced mis-jumps This is hardly a recommended practice but is one of the few things that will get you out of the way if the ship on your tail has a Hyperspace Cloud Analyser. It is impossible to tell where a mis-jump will emerge and therefore the chances of them following you are nil. Whether you can get back to anywhere useful or not is, of course, another question entirely.

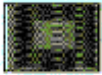
To force a mis-jump, press the ALT key while engaging your the Hyperspace drives.

3.5 Flying within a system

When you arrive at a system from hyperspace, you will notice that you are in the middle of nowhere. The nearest planet is dozens of astronomical units away, and is little more than a dot in the distance. Trying to find a small space station at this kind of distance would be far too much work in these automated days, so we at New Rossyth Shipyards have furnished your craft with the latest in realtime three dimensional orbital map generators. This will show you the layout of your chosen system at any point in time, and allow you to zoom right in on the planet of your choice.

Check on the System Info (F7) in Map Mode to find where the space stations are, and then zoom in on that planet on the Orbital Map (F6) and your space station should hove into view.

You can target on a planet, orbital station or space port in three ways. (1) In view mode, click on an object to target it.



(2) In the Orbital Map or the System Info Map, click the Navigation Target Control on the Navigation Target, or press 'T'. Then click on the object.



(3) In View mode, activate your Navigation computer (if you have one) by pressing 'N' and then clicking on your chosen site.

Whichever means you use, a green targeting square will lock onto your target and give you a range read-out. You are now free to engage your Auto pilot whenever as you want.

The Autopilot This is the lazy way to fly — and definitely the one we would recommend to beginners. This handy facility makes travel so much easier, and you don't need to return to the helm unless your ship is under attack.



Select a target in either View or Map mode and then activate your autopilot by clicking on the red arrow that appears in the navigation console.

Your on-board computer will take you straight there and will even request landing permission for you and a friendly blue warning light will glow on your Command Console to let you know its doing it. You are free to use the Stardreamer time control to reduce the tedium of your wait.

How easy do you want it?

The Stardreamer Modern ships are capable of very high speeds, sometimes hundreds of thousands of kilometres an hour. And well they need to be as planets are hundreds of thousands of miles apart. Even so, we still haven't reached the point where travel between planets takes no time at all, and travelling in a straight line for four days is enough to drive anyone round the bend.

So, we at New Rossyth, have added that most essential piece of kit — the Stardreamer. This unusual piece of equipment places the pilot of the craft in a semi-hypnotic state at the wheel allowing the autopilot to take the strain while your brain stays on ice and forgets that hours, weeks and days are passing. Basically it stops you from going completely out of your skull with in-flight cabin fever. Although the pilot is very much awake as regards the worlds around him, time seems to pass in the twinkling of an eye, and at it's highest setting, a day can pass in as little as ten seconds. Time speeds up in increments of ten from ten times normal to ten thousand times at it's highest setting.

Some thought the Stardreamer was far too dangerous, however, not leaving the pilot in a fit state to enter combat, so we have created the Stardreamer II, which cuts out at the first sign of trouble and injects the pilot with a high dose

of Adrenaline to wake them up solidly. if they aren't ready for action then, they probably never will be.



The Stardreamer controls are on the right hand side of your Navigation Console. To alter your perception of time, touch the appropriate arrow, the one at the top being the fastest. Keyboard shortcuts are 6-0.

Note: The Stardreamer can't be used when your craft is under attack, and we strongly advise against using it when within orbital range of a planet.

The auto-pilot: friend or foe? Almost everybody uses it, although it can be a pain in the neck some-times. It's a great tool to get you safely from one docking station to the next while the Commander's reading the papers, or using the Stardreamer to skip travel-time. The downside is that the Auto pilot doesn't handle 'objects in between' very well. It also has the tendency to crash into planets, instead of shutting down in time, and reporting to the commander that the target is near.

The autopilot functions best in maximum time acceleration mode. Example: You launch from an orbital station and set your autopilot destination to a star port on the planet surface. If you press 8 to partially accelerate time, you'll see the planet approach, you'll see the autopilot trying to get on the other side in a rather clumsy process, and chances are you'll see the planet approach too fast, and you'll crash. When you launch and press 0 (maximum time acceleration) you'll find that the moment you switch on time control, you're safely at your destination.

The auto pilot can also be a handy tool to circle around other starships, or scooping up cargo-canisters.

Flying in bad weather Believe it or not, space has a lot of bad weather, and just like terrestrial weather, you have to take special care when flying through it. Don't get us wrong — there is no fog, no rain and no snow to contend with. Instead, you have two main things to worry about, both of which can be extremely hazardous, and both of which mean some slow manoeuvring at times.

Asteroids: think of these as seriously over-sized hailstones. These huge chunks of rock drift slowly through space, carrying with them some rich stores of minerals and ores. when you come across these little beauties, there are only two things you can do. The first is only applicable if you have a 30 MW Mining laser, and that's to blast them to harmless smithereens. The other option is to slow down and try to find a clear path through them — by no means an easy task, but one that you will doubtless find worthwhile. (Then again — you could always try the roundabout route and give them a wide berth — depends how tired you are of life, really).

Micrometeorites: These tiny dust particles are so minute, you can't see them with the naked eye, and 99.9 percent of the time are completely harmless. However, once you start to pick up speed, these tiny particles begin to buffet your ship, and if you aren't careful they can start to cause damage. All ship shield systems are designed to withstand these minute pieces of space grit, but unprotected parts of the ship (aerials, undercarriage etc.) can easily become damaged, so ensure that you have everything tucked away before you start

Stardreamer	Responsive speeds	Distance
6	0–400 kph	0–4 km
7	400 kph–20,000 kph	3 km–3,000 km
8	20,000 kph–80 kps	2,000 km–300,000 km
9	80 kps–1,000 kps	400,000 km–0.5 AU
0	1000 kps–15,000 kps	2 AU–30 AU

Table 3: Stardreamer settings, and speeds at which the craft feels responsive

racing across systems.

3.6 Intra-system flight without an autopilot

Maybe you need the space in your cargo hold, and the auto-pilot’s taking up a precious 1t of room. Or maybe you long for the good old days where pilots navigated between planets manually. Or maybe you’re planning something special that the autopilot can’t manage. This section describes how to fly without the autopilot.

The biggest problem is slowing down at the right time. Beginner pilots normally overshoot their targets by millions of kilometres — or ram into them at hundreds of kilometres per second. They key is to use the *targeting tunnels*.

Targeting tunnels A targeting tunnel is used to guide the interstellar traveller to a selected point in space. When used correctly it will guide you smoothly and easily to your destination, as well as place you at the correct speed for your journey. The tunnels are projected by the heads-up-display in your cockpit as a way to gauge stopping distance coupled with the Stardreamer setting.

When you are flying at speeds of under 400 kilometres per hour, your controls seem very responsive. That’s because the thrusters are powerful enough to change speed immediately. But at speeds of 400 kilometres per *second*, the thrusters take several hours to bring you to a halt.

On the other hand, if you engage maximum Stardreamer, then several hours of real-time are over in just a few seconds of subjective time, so the controls seem responsive. *Responsiveness of controls depends on your stardreamer setting.* Table 3 is a guide. You should always fly at the appropriate stardreamer setting, so that the controls are responsive. That way you can brake in time, before you hit the planet! Note that no stardreamer setting is really appropriate for distances of about 1–2 AU. This is where most pilots crash or overshoot. You should go to the slower stardreamer setting, and play it safe.

The tunnels give a visual feedback of exactly the same information. The tunnels should be expanding at roughly one per second. As long as the controls feel responsive, the tunnels will show that you have the right stardreamer setting, and that you’re going at the right speed. *As long as the tunnels are approaching slowly, and the controls feel responsive, then you will be able to decelerate in time.* Technically, the tunnels are rendered in logarithmic pseudo-space. This means that they are very bunched up close to the target, and as you get closer you have to slow down to keep them at the same steady rate.

Note: Targeting tunnels can be switched off in the Preferences page.



Figure 34: Targeting tunnels

The main thrusters are a lot more powerful than the retro-thrusters. This means it takes longer to slow down than it did to accelerate. (Decisions made in haste, and all that. . .) Some pilots like to use a different method of landing, without the tunnels: Suppose the planet is at a distance of 10 AU. Face towards it and switch the engine to manual. Flying towards it, keep ENTER pressed to thrust until a distance of exactly 5 AU — the midpoint. Now turn around, and thrust in the opposite direction until you reach a complete stop. If you got the timings right, you will have stopped at exactly the right place. Note: this way you can't see where you are going, and it's easy to overshoot. Only recommended for experienced pilots, and those in a hurry.

Planets Planets are the hardest thing about flying without an autopilot. Practice docking at space-stations first, until you have a feeling for your stopping distance. And if you don't have atmospheric shielding, practice on a planet without any atmosphere!

Remember that sometimes a planetary starport is on the *other side of the planet!* Don't just head straight towards the green target, without checking first! A good idea is to get close enough to the planet so you can see the starport's beacon. If it looks to be on the other side, fly around the planet, high above the atmosphere.

A useful technique is *never to aim directly at a planet*. Instead, aim just a little outside the atmosphere. This way, even if you're going too fast and can't break in time, you'll just swoop past and can try again — the egg splattered on your face in embarrassment, is not as bad as your ship splattered on the planet!

If things are looking bad, and you're heading at high velocity straight towards a planet, *thrust sideways*. If you can change your course by just a fraction of a degree then you'll miss the planet. It's a lot easier to change course this way, than it is to bring your ship to a complete standstill.

If ever you decide to trade in your Saker Mk III for a larger ship, like a Boa or Panther, note that they take much longer to slow down.

Slingshot around gas giants Every commander must do a 'slingshot' at least once (preferably only once, and after a lot of experience). Find a big gas giant, similar to Jupiter or Saturn. Aim just outside the edge, and fly towards

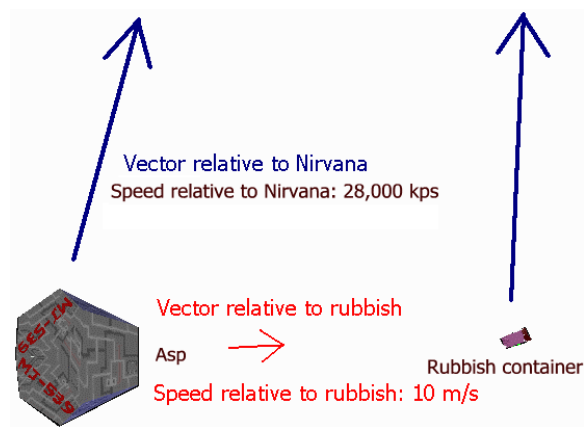


Figure 35: Relative velocities

it with a speed of 90,000 kps. Activate the star-dreamer. Watch your speed: it will increase due to the planet’s gravity. This looks best if you switch your engines to manual and face the planet.

3.7 Manual flight, and relative velocities

Too often, pilots enrolling at the Naval Academy just don’t know how to *fly relative*. This isn’t due to lack of aptitude or intelligence – they just haven’t had the need. This is why a bounty hunter who learns how to fly properly in the vacuum of space before engaging in combat will be at a great advantage. I really can’t stress this enough. I will now try to explain in detail the whole concept of flying relative. I’m constantly amazed by how many people saying “Oh, you’re going so fast you can’t steer and intercept the enemy ship” after a combat experience in deep space. Why do people say this? It’s because they’ve grown up planetside and have never been really confronted with relative movement in this way before. It is not a hard concept to grasp; once the concept is grasped, it just requires practise to use it in your quest for Elite status. Of course, having ‘space debris’ displayed on your screen does not help either — it just causes confusion most the time. Get your ship’s computers to mask out the space-debris, from the options panel.

For our first exercise, we’ll consider chasing a cargo container. A good way to do this is to buy a tonne of rubbish, fly to some unpopulated area where you won’t get fined for dumping, and jettison the said item. Now have a piece of rubbish floating near a station — Nirvana in the following example. We want to blow it up to keep space tidy. It’s currently a few kilometres away, and we want to get within a few metres, because the explosion is much better when you’re close. . . Look at Figure 35

So you are now in the vicinity of the object. This is the situation: You are hurtling towards Nirvana at a speed of 28,000 kilometers per second. The common misconception that people have is that they are going so fast, they can’t change course to intercept the rubbish. This is 100 percent *wrong!*

The rubbish is *also* hurtling towards Nirvana at 28,000 kps! It is utterly

unimportant how fast you are going relative to Nirvana. You could be doing half the speed of light relative to Nirvana — it wouldn't matter one whit (unless, of course you are about to get a face-full of planet, but we'll ignore that for now. Combat usually occurs far enough away from any planetary or stellar mass that this is not a concern). What matters is your relative speed to the rubbish. In this case, it's a sedate 10 metres per second. By judiciously firing your thrusters you can manoeuvre your ship anywhere you want *relative to the rubbish*. You'll still be hurtling along (either towards or away from, depending where the planet is) towards Nirvana, but who cares? Your sole concern is the lump of rubbish you're about to vaporise with your laser. To manoeuvre relative to the rubbish, think what direction relative to the rubbish firing your thrusters will move you. For instance, if the rubbish is moving across your screen to the left, what do you have to do to stop it? Simple, you have to add some velocity in that direction. Turn your ship so that the rubbish appears directly to the right on the scanner. Quickly fire your thrusters (and I mean quickly — just a small correction) and turn round to face the rubbish again, and see what change it had. Experiment with things like this until you can do it without even thinking. Or use the numeric keypad for control over the individual directional thrusters.

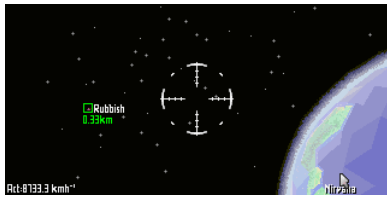
Here is an exercise for you to practice:

1. Go out into deep space, with 1 ton of rubbish in the hold.
2. Get up to a high speed relative to whatever planetary/stellar object you're currently showing relative to.
3. Jettison the rubbish.
4. Manoeuvre a bit so you get a bit of relative speed difference with the rubbish container.
5. *Turn the engines to manual*. If you don't, your ship's computer will be trying to adjust your speed relative to the stellar body, and you'll get nowhere at all!
6. Locate the rubbish on the scanner. Select it with the mouse or the auto-targeter.
7. Experiment with using the thrusters and retros to see the effect. Think carefully what thrusting in a particular direction will do relative to the rubbish.
8. Repeat until you can proficiently get very close to the rubbish and hold your position with it.

Enough talk: here's a demonstration.

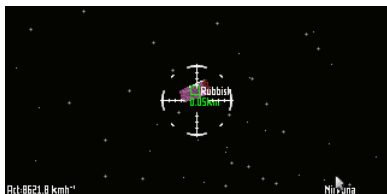


We've found a piece of rubbish and selected it. As you can see, we are whizzing towards Nirvana at nearly 9,000 kph. But that doesn't matter. What matters is that we aren't closing on the rubbish — the container is moving away from us. We want to get closer to the rubbish. To do this, a short burn on the thrusters whilst facing the rubbish is needed.



We aligned ourselves with the rubbish, and have now got quite close. Note that although we've moved much closer to the rubbish, our relative speed to Nirvana hasn't changed much — demonstrating that it doesn't matter what that speed metre says!

In this picture, the rubbish was tracking left to right slowly. To stop this you can do three things: you can point the nose slightly right of the container and give a short burn on the main thrusters to slow this movement and at the same time increase the closure speed; or you can point the nose to the left of the object, and give a shot of retros to slow our closure rate at the same time as correcting our drift from the object; or you can use the lateral thrusters with the numeric keypad.



We have now got really close to the rubbish. You can actually read "Rubbish" written on the side of the container as it slowly spins. We are only 50 metres away and in a great position to see a cool explosion with a quick blast of laser.

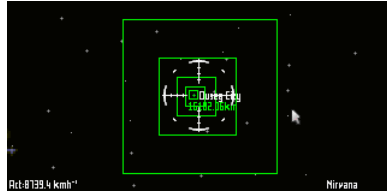
Try and get in the positions shown relative to an object — see how much drift you can eliminate, and how close you can stay to a small object. It takes some practise. As a more advanced exercise, go to a dangerous system and blow a pirate up. Try and do the same exercise with the metal alloys or any cargo that flies out of the exploding ship. Remember to turn your engines to manual (once the danger has passed in combat, the computer turns the engines on fly-by-wire again). Another thing to note is the "second sight" on your screen may not necessarily come into view. This is because it's showing your vector relative to Nirvana in this case, and not the cargo cannister. Ignore this sight anyway — it doesn't indicate your vector relative to anything you care about whilst in combat.

An advanced exercise So you've sorted yourself out with the lump of rubbish. Here's an advanced exercise that'll really teach you how to fly with the engines in the "Off" position, as you do whilst in combat. The idea is simple, but rather more difficult to accomplish. People used to say that docking in the early days of the Elite Federation was hard. ("If you think three point turns are difficult, try docking a space-craft...") But here you'll find yourself in a whole new world of challenge. Here's the assignment:

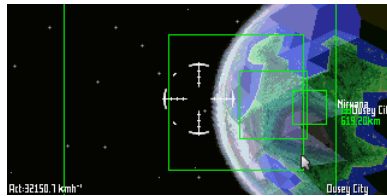
- Starting at least 20,000 km from a space station, dock with it manually. With the engines set to Manual for the whole task! Remember...engines Manual!

You should be proficient with the Rubbish container before you even attempt this. A rubbish container will just bounce off your hull...hitting the space station can be a bit more problematical! The principles are exactly the same as with the rubbish container, of course. However, the frame of reference will eventually lock onto the space station. To make it more challenging, stick a

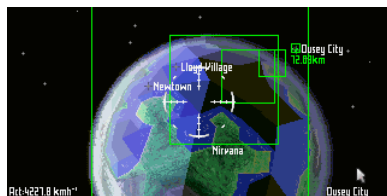
Post-It note over the speed metre. The fact that you probably won't be in precisely the same orbit as the space station (and so the planet's gravity will change your course a different amount than the space station) helps with the challenge.



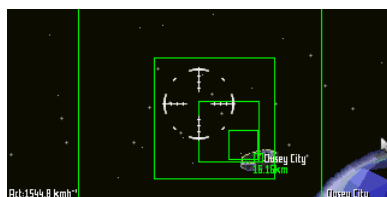
I'll demonstrate the procedure. Engines are set to Manual, and I've got Ousey City selected. Both myself and Ousey City are hurtling around Nirvana in orbit. Once again, we won't worry about or velocity relative to Nirvana: we'll just concentrate on our closure rate with Ousey City. I'm heading more or less towards Ousey City at 1 kps using thruster burns of a second or two perpendicular to my flight path to nudge the ship into an intercept course. In this picture we have a way to go — about 16,000 km.



Our orbit has gone a little wide of Ousey City - using judicious thruster burns once again perpendicular to our flight path will push us towards Ousey City — but still closing with the station. Remember to never overcook it — out this far, a burn of a few seconds at a time is enough. Fire your thrusters, and watch to see what the result is. Close in, use much shorter burns. We are now just under 620 km from the station.



We are now close enough that the Relative To meter has switched to Ousey City. At this point, make sure there's a post-it note stuck over the meter so you can't cheat! Keep making corrections to bring yourself closer to the station. Keep your closure rate reasonable. As you get closer, use thruster burns in the right direction to decrease closure rate — you don't want to hurtle past the space station.



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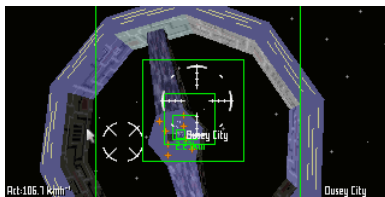
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burns in the right direction to decrease closure rate — you don't want to hurtle past the space station.

Oops, we overshoot. Fortunately, not by much and our closure rate was slow, so a little bit of thrusting brings the ship back on a course towards the station. We are pretty much in spitting distance now. Use small corrections, just like you did with the rubbish container.

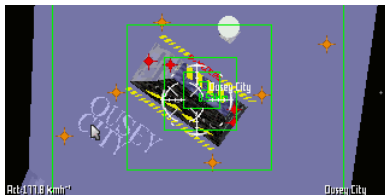


We are very close, so I requested clearance. However, we have to get around the other side of the station. We are drifting a bit too close considering we have to go around to the other side. To correct for this, we should face away from the station and give a very quick (ie just a tap on the thruster) burst from the thrusters. The ship slowly drifted to the side of the station with the docking port. Then the fun begins — align yourself with the hole and get inside!



all you want to do.

We are now travelling roughly in the right direction relative to the space station to dock. You now have to know which way to thrust without even thinking, otherwise you could get a face-full of space station. Never give a long burn on the thrusters: at this stage, just small taps on the main and retros are



Well here goes! Just a couple more tiny burns on the thruster to get perfectly aligned.

If you've mastered these two, then go and do some combat. An additional proficiency exercise that will help your combat skills further is to do the following. When

you next encounter an opponent in a ship that's the same speed or slower than you, try and fly formation with it. I'm not joking! Make sure no-one else is shooting at you, then anticipate his moves, get behind him, and try and stay in-trail for as long as possible. With practise, you should be able to do this indefinitely. However, it does take patience and practise. Don't give up! To be able to do this you need to know when, how long and where you need to burn your main or retros without even thinking about it. You have to understand on a deep, subconscious level how manoeuvring in space works if you have any hope of being a good combateer!

3.8 Your pilot's test — a revision guide

As a new pilot, you will have to show your control of the craft by performing a number of different manoeuvres on request. The instructor will be looking for calm, relaxed controls, lightning quick reflexes and a friendly, cool attitude. Although many of these procedures will never actually be performed in your everyday flying, the finesse and ability to control your craft they will give you will certainly come in handy when impressing the local talent. So, to help your revision along the way, here are a few of the things you should remember when carrying out the manoeuvres.[†]

[†]Extracts courtesy 'Up In The Sky In 10 Easy Stages', Williams and Turhg.

Turning on a proton Originally called a 32-Point Turn, the name was changed due to the fact that too many candidates took the name literally and panicked when they hadn't managed to rotate the full 180 degrees in the 32 changes stated. The objective of this manoeuvre is to show smooth control of the clutch in conjunction with rear and retro engines, and to turn a moving vehicle around to face the opposite direction to that of travel as quickly as possible.

Too many learner drivers attempt to stop the vehicle with the retro engines before turning the wheel, and this is something that you will be failed on. Since the introduction of more powerful rear engines, the best procedure to follow is this:

1. Slam the retros on full to stop any acceleration.
2. Spin the ship around to face the opposite direction, so that you are flying backward.
3. Slam the rear engines into overdrive to stop the craft as quickly as possible and begin accelerating away. Remember to check the mirrors at all times.

Reversing into orbit Reversing into Orbit is a completely pointless manoeuvre that the Department Of Flying brought in to stop the younger pilots passing first time. Nevertheless, we have managed to discover a procedure that works every time, and fits the examiner's criteria. A word of warning — this is one move than can create some disturbing feelings of nausea, so be prepared.

1. Fly directly toward a planet, and don't even think about levelling off.
2. Watch the nose of your craft. As soon as the shield begins to heat, you are beginning to enter orbit.
3. *Quickly* pull back on the stick to flip the craft so that you are falling backward toward the planet.
4. Chuck the rear engine on full, and hope you pull out of your fall before it is too late.

Note: Please make sure that your Personal Accident Insurance Premiums are fully paid up and that your will is in order before attempting this manoeuvre.

Parallel docking Docking between two other craft is an extremely necessary skill, and a welcome addition to the flying test. There are no two ways about it — this is one thing you are going to have to master.

1. Pull up alongside the craft you are going to dock behind, keeping a distance of around fifty metres between yourself and it.
2. Checking your mirrors, switch the retro engine on gently, and when the rear of your craft passes the rear of the craft you are docking behind, start to steer towards the docking space.
3. When the nose of your craft is clear of the rear of the craft you are docking behind, steer the other way to level your ship out, and then gently brake. All being well, you will have docked smoothly behind the craft of your choice. well done!

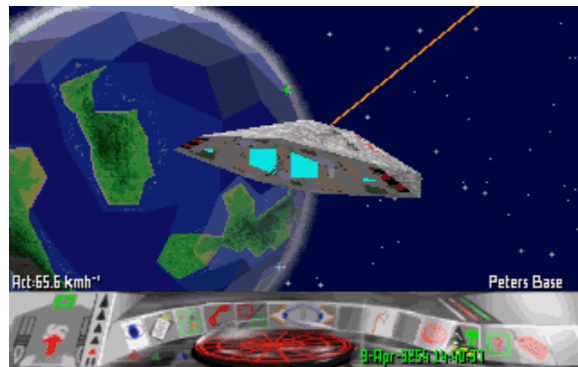


Figure 36: Firing lasers

3.9 Basic combat controls

At some stage or other, you are going to have to go into combat. There are no two ways about it. The galaxy is an extremely dangerous place, chock full of people who want to rip you off, steal your ship or just plain kill you. And that's before you ever leave home! Of course, there is an extremely good living to be made by the pilot who turns combateer, and the military are quick to promote anyone who can deal with a 20 MW Beam Laser as well as they can a hyperspace switch. So, for all of you who can't wait to get out there and start (ahem) 'acting in self defence', here is just about everything you could need to know about combat in space, Queensbury rules and all.

Like any trade, you need to know your tools before you can start to excel — how many technicians do you know who reach for the DIY catalogue when they need to find out how to use a screwdriver? So, before you can start to blow bounty into radioactive stardust, you need to figure out what your weapons are, how they work, and just when is the right time to use them. Here, then, is a simple run down of all the offensive weaponry available to you. For more information on the weapons and other hardware mentioned, please refer Chapter 6 'Equipment' on page 165.

Lasers The most common and basic weapon, not only for you but for every ship. Lasers are generally mounted on the front of your ship, although you can have rear and turret mounted lasers if your craft is built to carry them. In essence, these drain power from an energy bank in the ship and turn it into a red hot beam of light, which can cut through shield and ship alike. They come in many guises, the cheapest being the 1 MW Pulse laser, which fires intermittently, and at quite low power. Beam lasers are better, as they fire a continuous stream which can be 'steered' around the area to hit a ship. Again, they come in a variety of strength settings, each taking up more room on the ship than the previous, but each step up providing an easier way to kill your opponent than the last.

To fire your lasers, get your intended target in your main ship direction sights, and then hold down the *both* mouse buttons to fire a straight laser beam, which will look like a line emanating from the front of your console to the crosshairs in the middle of the screen. Alternatively, hold down the SPACE



Figure 37: A missile hits its target

BAR or use the button on your joystick.

Lasers fire from the view that you are in. Thus in Front View, your forward lasers fire, in rear view, the back ones and turret lasers fire only if you are viewing from the turrets.

It is worth bearing in mind that if you don't have a rear laser, trying to fire while in rear view will be a frustrating and possibly fatal experience.

Missiles (M) Missiles are graded on intelligence and priced accordingly: Naval missiles cannot be destroyed with a standard ECM, and you pay hand over fist for the better classes. Some missiles are now fitted with cameras, so you can watch them chase the enemy from the nose of the explosive itself. This is really nothing more than an expensive luxury for the bloodthirsty — but who are we to go against market demands?

To fire a missile, you need to select a target using your Battle Console (see the section on targeting), and then all you need to do is click on a missile icon in the console to launch the homing missile. It will now streak towards its target. The 'M' key fires missiles then mines in order.

If a missile doesn't make contact with the target within 60 seconds, it will run out of fuel and explode — so try not to launch when the enemy is too far away.

Note: a missile will explode when it hits any solid object, even if not the original target. Make sure this isn't you.

Mines Mines are also explosive devices fired by ships, but these differ from missiles in that they are completely un-powered. Developed as the logical extension of the old sea mines that were used in the 20th century, these bombs consist of nothing more than a very high explosive wrapped in sensors and a gravity anchor.

Launching a Mine is exactly the same as launching a missile. Target using the Battle Target circle and then click on the mine you are carrying. It will detonate when in the proximity of the enemy ship.

Mines are as susceptible to the ECM as are missiles.



Figure 38: Energy bomb

Energy bombs The last line of attack — but by no means the least — is the energy bomb. This electronic jammer is very large and extremely expensive, and should only really be used in emergencies. In theory, all it does is send out a jamming signal to the drive systems of all ships within a given radius, and causes them to overload and explode within their parent ship, generally destroying their parent ship in the process. If you have a large enough shield, an attack from an energy bomb can be withstood, so it's best to only use an energy bomb on smaller craft.



To launch an energy bomb, all you need to do is select the energy bomb icon on the main combat panel, or press 'B'. The eruption is sent out immediately, and you can watch the scanner to see the results of your attack. Unfortunately, now that most ships have shield generators, energy bombs aren't as destructive as they used to be — although a well-shielded ship will be damaged when you let off the bomb, it won't be destroyed.

3.10 The combat drill

So now you know your weapons, or at least generally, and you should have by now taken a look at your ship inventory to see which weapons you have on board. Let's now go through the combat drill to get some idea of the procedures to follow when faced with a combat situation. Note: this is merely one way to approach combat, and while it may by no means be the most successful or the fastest way to dispatch with the opposition, it is a good beginners way to enter battle. As time goes on, you will develop your own strategies and tactics, as well as find new and better ways to use your ship's capabilities to their maximum.

Switching to battle mode The RED light on your console lights up and a warning klaxon sounds when you are under attack. Hit the Battle To Navigation panel (F5) to switch your Dual Console to Battle Console. A quick glance at this will show you what weapons you have at your disposal.

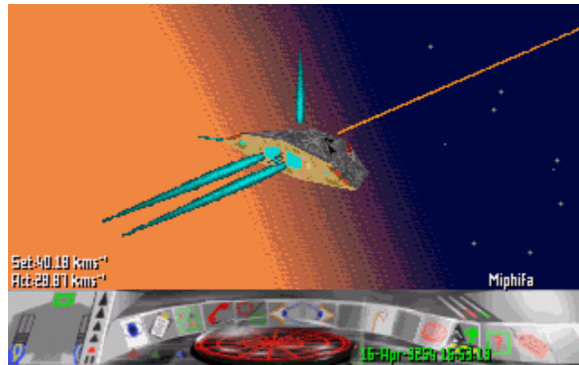


Figure 39: Flying close to the sun

Identifying your assailant The next thing you need to do is locate and identify the assailants around your ship. Glance at the scanner to figure out where in relation to your ship they are, and if necessary switch to an external view or use the combat computer for a better view. In most cases you will be in a one-on-one situation, so you can concentrate all of your firepower on a single target. In certain situations, however, such as Police attacks or pirate ambushes, you will be left with anything up to a dozen ships to take on. The best thing to do now is to identify the kind of craft that are attacking you, and their relevant strengths. If you don't have a combat computer or a radar mapper, you'll need to do this visually, so grab your ship identification manual and start flicking through the pages. If you had the forethought to get either a radar mapper or a combat computer, you'll be able to find out everything you need to know about the enemy, and can decide on which to attack. As a rule, you are best going after the strongest first, when your shields are at maximum and you have the best array of armaments to play with.

Selecting a combat target You can fire your lasers without designating a target, so most of the time you won't actually need to target a craft at all. That said, it is often best to target the strongest ship as quickly as possible, as this gives you the ability to fire a missile at a moment's notice when needed.

Select a target by either by clicking on it with the mouse pointer or by activating the Battle Target Control (the small red circle at the top of the Battle Console) to make the centre of your laser sights actively seek a target for you.

In either case, your on-board computer will bleep to let you know when a target has been successfully selected and the red target circle will attach to your chosen site.

You can now launch either a missile or a mine by clicking on the appropriate icon or by pressing 'M'.

Opening fire (Both mouse buttons or SPACE) You've chosen your target, your weapons are ready, and you are about to open fire. This is the part of combat that no amount of procedures or routines can help you with. This calls for fast reflexes and a good eye. That said, just swinging the nose of the craft



Figure 40: The First rule of Battle: ‘Know Thine Enemy’

around firing wildly isn’t going to score you any brownie points. Instead all it will do is drain your lasers and make you look a little stupid. What you want to do is fire sparingly, so that the opponent can’t dodge your laser fire, and you also need to figure out their flight pattern. Space hardened pirate combateers are actually quite bad pilots as a rule, and generally follow the same attack pattern every time they strike. One favoured route is to ‘loop’, where they fly some distance from you, wait for you to start chasing, and then suddenly flip on an axis and open fire as you race toward them. In a situation like this, it’s best to just train your sights on them, and hold off the fire button until they come charging at you. As soon as they are in range, start firing, and hold the laser beam steady at them. Because they are facing you directly, they won’t be able to dodge out of the way as quickly as they would be able to if you were firing across their broadside so you should find yourself blazing them out of the sky before they know it.

Although we live in a time of long range weaponry and even longer range computer guided systems, combat is actually easiest at close range. Because the craft appear so much larger at close range, aiming your laser becomes much easier. However, you have less time to react to missiles and other attacks launched against you. How you fight is really a matter of personal preference, and it’s worth fighting in as many different scenarios as you can to improve your expertise.

Defensive moves Any martial arts expert will tell you that combat is not all about attacking. The secret to being a really good combateer is a solid defence line, which is why it’s a good idea to stock up with as many defence systems as possible. on the bottom level, there are four different systems to use:

1. *Shields.* The most basic defence tool. Shield Generators can be bought at most space stations shipyards, and the more you have working at once, the more powerful your shield. All shields are depleted at the same speed, however, and four or five solid hits one after another are enough to finish off any ship. However, the more generators you have, the faster your shield recharges, and if your opponent is only hitting you sporadically, three shield generators should ensure that they never once get near your hull. Conversely, if you haven’t got any, you’re going to die. (This is a



Figure 41: Shields keep you flying. . .

hint. . .)

2. *Chaff*. Chaff is used to get rid of the very bottom line missiles. This small cloud of metal particles is superheated and then ejected from the back of your craft in an attempt to distract the missile heading towards you. This only works some of the time, but if you have no ECM system, then dropping a tonne of chaff and then running from the missile works (sometimes).
3. *Electronic Counter Measures*. A computerised system used to detonate missiles, an ECM is something that no ship should be without, and if you can afford it, a Naval ECM is just the thing. This is used to confuse the simple computer on board the missile into thinking that it has hit the target, and then as a result the missile is detonated in empty space. If you are quick enough with the ECM button, you can detonate the missile as it leaves the enemy craft, destroying smaller ships and damaging larger ones in the process.

If your Naval ECM doesn't kill an incoming missile, just try again a couple of times. When you quickly press E 5 times, all incoming missiles should be gone. If they seem to be immune to your ECM waves, you'll have to look for alternatives:

During battle, you may have found out which of the attacking ships have ECM capability. Keep a combat-lock on that ship, and when some ship fires a missile at you, press M to fire a missile at the ECM-ing ship. He will activate ECM shortly to destroy your, and every other missile! This is called the 'poor man's missile jammer'.

Another clever tactic which seems to work is to select the incoming missile as a target, and launch a missile of your own at it. If you're lucky your missile should destroy the enemy missile before it hits you. Of course, you could always try to be flash and shoot the incoming missile out of the sky. . .

4. *Escape Capsules*. This is something that no novice should be without, especially when entering an unknown system. An escape capsule effectively replaces your main cockpit, and is ejected moments before the craft



Figure 42: ECM in action

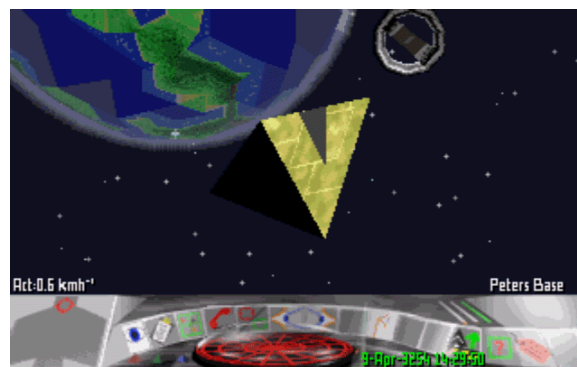


Figure 43: An escape capsule returns home

is destroyed at any point, The capsule features a homing device that will get you to the nearest starbase with the minimum of fuss. As part of the cost of buying an escape capsule, you are given an insurance document, which you can trade in for a new Saker when you reach the starbase. See Chapter 6 ‘Equipment’ on page 165 for more details.

3.11 Combat techniques

Prestige. Money. Elite ratings. These things are what draw many people to combateering. The galaxy is literally awash with combat pilots. However, the standard of non-military combat pilots is utterly lamentable. The 3294 Combateer’s Almanac has some statistics that bear this out. You would expect that the Elite rating ‘Average’ would represent just that. However, since the Elite rating system was devised, when only a few had combat capable ships, ‘Average’ has become a misnomer. The sad fact is that the average life expectancy of a new combat pilot is currently eight weeks, and only 20 percent of all combat pilots make it past the ‘Poor’ Elite rating! Only 11 percent make it to ‘Average’. The good news is for those that make it that far, they stand a good chance of dying of natural causes instead of at the end of a pirate’s laser. Only 0.2 percent of combateers make it to Elite. This is mainly because the 11 percent that do

make it past Average normally give up not long afterwards due to the stress.

Why is this? The most common fault is that would-be combateers try and enter the game with a ship that's simply not suitable for anything but occasionally defending itself. Anything smaller than a Viper will generally not survive a hit from a missile, nor will it survive an attack by multiple enemies. Next on the list is the problem that most combateers are behind the game, or have insufficient situational awareness. The final major cause of combateer loss is that few people seem to know when to run away.

The good news for you is that since you're reading this, you take combat seriously and are trying to learn how you can survive the experience. Virtually all of the 80 percent who don't make it past 'Poor' have not read or practised any combat whatsoever before embarking on their fatal vocation. The other thing working in your favour is the fact that 80 percent of the people you'll come up against will be largely unskilled combateers!

The basics A highly significant portion (about 99.5 percent) of would-be pirates and combateers come to grief not because they lack the potential to become good combateers, but because they basically don't understand space travel. I'm constantly amazed at how much patient teaching it can take to teach an otherwise intelligent person Newton's laws of motion. The majority of cadets that come through the academy have lived planet-side all their lives, and are used to the way stuff works when you're close to the ground with a nice thick atmosphere around you. Basic schooling seems to be completely inadequate preparation for space travel. Not surprisingly, the students that "get it" the quickest with regards to space combat, are the kids that were brought up in space.

Having lived on the surface of a nice warm planet with a breathable atmosphere, most people seem to just expect flying in space to be the same as flying in an atmosphere. Nearly everyone comments after their first introduction to space combat that "I was just stuck there and the other ship was buzzing around me. The metre shows I was just hurtling towards Gateway at 600 kps, and I couldn't change speed."

The first thing you have to do is ignore that speed metre. It really does not matter one whit what your speed relative to your nearest stellar body is. What matters is your speed relative to your opponent. Just ignore the speed metre because it's really irrelevant at this stage. To help with that, make sure you set your screen options to mask the space dust. The dust just confuses your subconscious mind and makes it much harder to make that mental switch to thinking relative to your opponent. A good exercise to learn how to manoeuvre relative to another object is this:

1. Find a convenient object: asteroids are good, space stations are good (but stay out of the control zone!), and parked deep-space cruisers are good too.
2. Set engines to manual.
3. Using your thrusters in this state, learn how to circle, run in, turn around and anticipate where to fire your thrusters to end up in a particular location relative to the object you have chosen for this exercise.

4. Once you can precisely position your ship with the engines on manual, go and try it against another combateer. Of course, they are now trying to move relative to you also, so it gets a bit more interesting!

The second big thing is to learn to anticipate. We'll cover anticipation of your opponent's move in the Strategy Guide below. For more detailed information on exercises to help you fly in space with the engines set to manual, see the following two sections.

Combat strategies Teaching someone how to be a good pilot is easy — there are a few controls to get the hang of, and it's very hard to crash into anything in the vastness of space. Showing someone how to be a good combateer is less easy, however, and there is no real knack to knowing how to take out a pirate that you can really pass on to someone. You may well be asking 'where does that leave me?'. Up a certain creek without a certain paddle would be the appropriate answer. To help you out, here are a few combat techniques you might want to practice. There's no guarantee that these will actually work, but then no one has ever come back to complain.

Hit and run This is the most standard combat technique adopted by new pilots, and merely involves homing in on the enemy craft with lasers firing and heading straight for them. This technique works extremely well if you have a powerful enough laser to take someone out with a couple of strikes, but you will need good reactions if you are going to be able to get out of the way if they don't explode when you expect them to.

Taking on a single ship of equal or less armament than yourself One thing I'm always hearing from bounty hunters who take instruction at TSCA is that combat always seems to be like a medieval jousting match. Typically what happens is the two ships engaged in combat will come towards each other in a high speed head-on run, lasers firing. Usually one will manoeuvre to miss the other, but both ships will hurtle past each other with a high relative speed. Both ships will turn around their longitudinal axis to face each other with lasers once more, hit the power, and the process will repeat itself until one of them runs away, or one of them is destroyed. This kind of jousting exposes the combateer to not only the risk of being shot up by the other party, but actually colliding at high speed. A not insignificant number of smaller ships are destroyed when they impact the forward shields of a larger ship.

To improve your chances of winning by many orders of magnitude, what you have to do is to not have your enemy shooting at you. This means you *must* get on the opponent's six o'clock position. How do you do that? Firstly, there will almost be an initial 'joust' as both of you come towards each other, lasers blasting. To avoid this process repeating, you must anticipate what's going to happen next. I have found that almost always the other ship will begin to turn a little before passing you to start the next joust. This is what you need to anticipate.

Start the initial run by moving towards the opponent in the joust, using full main thrusters to limit the time spent in the joust. As the opponent nears, hit the retros hard. Then you must anticipate the way which the opponent turn. This is not always possible, but with practise you can see any slight deviation

in course the opponent will make. This will indicate the turn direction. Start turning so you maintain an intercept course. As soon as you can see any significant direction change in your opponent's flight path, keep him in your sights and use full main thrusters. What this will do is put you on your opponent's six as he tries to set up the next joust. Even if your ship is slightly slower than your opponent, you can maintain position for long enough to seriously weaken or destroy your opponent. If your opponent is slower than you, you can keep on his six indefinitely.

Taking on a single ship of greater armament than yourself Picture the situation. You are nearing La Soeur du Dan Ham in the anarchic system of Reidquat. You've done well against all the opponents you've met so far because you anticipated their movements well, and took them out before they could deplete your shields. You only have 0.5 AU to go, and the Attack alarm goes off. Going to the scanner, you see a big white return. Looking out, you see the awesome sight of an Imperial Explorer letting loose a plasma accelerator in your direction.

This is a nightmare situation, and it will greet all bounty hunters sooner or later. The rules change when this happens. A plasma accelerator will destroy most ships in a fraction of a second, so you must avoid it. This means that the traditional straight run in (or 'joust') before anticipating and getting on the enemy's six is a recipe for disaster. Jousting in on an Imperial Explorer will mean you have little relative movement in his gunsight. All he needs to do is home that beam in on you, and you're dead pretty much straight away.

You do have one thing on your side — maneuverability. Should you decide to stay and fight, you should move as unpredictably as possible. Something the size of an Explorer won't be able to keep up. Keep moving towards your opponent, using the scanner to see his position, whilst keeping your flight path as unpredictable as possible. As you pass behind him, quickly turn and get on his six. Once on his six, you will easily be able to stay with him (just make sure you don't ram an Explorer; even an Explorer with depleted shields will not yield to the hull of an Asp). The only way something this big can escape you at this point is to either eject or hyperspace. Once you're on the tail of a large slow-mover, there's nothing they can do to turn around and shoot at you.

Taking on multiple attackers As common sense suggests, as the number of opponents goes up, the risk increases. If you are to go anywhere where there is a significant risk of an attack by multiples, you must make sure you have a well-shielded ship because you *will* be hit by some weaponry, regardless of how good your technique is. The basic strategy for dealing with multiple attackers is this. First, when you first see the attackers (luck would have this that you normally get pulled from the stardreamer with all attackers within laser range), you must quickly identify the most dangerous of the attackers — if there is one who is most dangerous. Ship size on the scanner is the best way to do this. Whilst you are doing this, you must take on the most unpredictable flight path you can, so not all the attackers can hit you at once. Remember that the lighter the colour on the scanner, the bigger the ship, so go for the whites/yellows/oranges as a matter of priority. They usually have the biggest guns.

Once you have identified who to hit first, start your attack using the appro-

appropriate technique for attacking a single ship of this type (you may want to throw in a little extra unpredictability to your flight path). It is best to know who will be your next target before you've finished with the first one, so you can quickly engage the next most dangerous attacker once your initial target has been dispatched. Repeat the process until you have defeated your attackers.

There are other general tactics you can employ whilst taking on multiples. Quite often, during an attack, your attackers will not be in formation and often you'll see one running in whilst you attack your main target. If you can get a few hits on another target without risking losing your current target, quickly swing your crosshairs over the secondary target and get a few hits in. You have to make a quick judgement call on whether to do this. Most importantly, don't allow a secondary target distract you from your current primary objective. Also, quite often, multiple attackers will all be using the same class of ship. In this case, simply go for the easiest one to hit first.

Missiles This piece of equipment is seldom used to its full potential. The missile has more uses than to just defeat an opponent who you're having difficulty hitting with the laser. True, it can be and often is put to good use in this role, but the missile can be strategically important when taking on multiple attackers.

When I carry missiles, I always carry NN500 naval missiles because no ECM has been developed which can combat these. I have found the best use of the missile is in a difficult combat situation with multiple attackers. A strategy that works well is to target your second highest priority target (ie the second most dangerous), fire the missile, then go after your primary with guns. What this will do is keep the second most dangerous ship from attacking you. Invariably, the ship your missile is homing in on will be trying to either outrun the missile or will be trying to shoot it down instead of attacking you. This is of course a good thing! More often than not, the missile will hit the target, by which time you've destroyed your primary target and you can now move on to your secondary target...who has already been severely weakened by the missile.

This strategy can be expanded with more than one missile when necessary.

Coward's Revenge Any great general will tell you that war is merely an act of national psychiatry. Mind games. The best way to win a battle is to outsmart the enemy, and most pirates are very easily outsmarted. To see what we mean, try this in a combat situation. When you get a craft on your tail, kick in the afterburners and start running away. The enemy won't be expecting this and you'll get a good head start. Keep them locked as a target so that you can keep an eye on their distance from you, and make sure they are chasing you. Now spin on a credit and turn to face them directly, keeping the afterburners full on. This should bring you to a stop quite quickly They will now be heading at you too fast to take any kind of evasive action, and you will have a sitting duck coming into your laser's range.

Super Coward's Revenge The Super Coward is even more ingenious, and involves the enemy having a Hyperspace Cloud Analyser and you having a better hyperspace range than them. This involves running away, and then letting them catch up with you. As soon as they do, then hyperspace to the nearest available

system, and wait for them to come after you. When they do, blast them as they appear from the wormhole.

The Last Stand The Last Stand is extremely dangerous, and should only be used when controlling the ship and firing your lasers is too much for you to cope with. Suicidal as it may seem, you need to stop your ship completely, and then place the engines under manual control. Watch the enemy, and as soon as they come into range start firing. If your aim is good enough, you'll be able to pick them off before they draw fire on you, but you will need to be very fast with your trigger finger for this extremely dangerous trick to work.

Running away One reason for the lamentable risk levels associated with combateers is the fact that the vast majority of new combateers either have a gross lack of judgement when it comes to detecting that they are unlikely to win an engagement, or that most combateers are simply too proud to retreat. I see it in a great number of people who come through TSCA. Although in the case of defending one's homeland it is often a heroic act to risk or lose your life so others may live, in the case of lone-wolf combateering, not retreating when you'll be killed is seen as plain stupidity. Trust me: there is no glory in dying to make the Above Average rating.

Of course knowing when to run is a judgement call only you can make to fit the particular situation you're in. However, there are some general situations in which retreat should be uppermost on your mind: Attack by multiples including a very large, well armed ship such as an Explorer. Concerted attack by multiples that leave your shields depleted and hull damaged. An attack that catches you with low/no shields and hull damage. An attack that leaves you without key thrusters or equipment. This list is by no means exhaustive, but it should give you an idea of some situations you should retreat from.

Next, you have to choose how you will escape. Most combateers have basically three options: you can hyperspace, leave the area at full power, or pull the eject lever and use the escape capsule. Commonly, only hyperspacing or ejecting is practical. If you're already damaged, it's unlikely you can simply run for it because your enemies will gun you down before you can get outside of laser range. Of course, ejection is only available if you have an escape capsule.

I always leave myself with an 'out' — even when equipped with an escape capsule, when I enter a dangerous system I always have a relatively safe system set before I even set the navigation computer for my destination. That way, if I get into something I can't handle I can hyperspace without delay, and this has saved me on numerous occasions.

3.12 Interception techniques

A common question amongst bounty hunters is: How do pirates track me down, match speed then attack me in the vastness of space? This section will educate you on how they do that. Why is this information of use to a bounty hunter? Well, pirates often jump into systems too — and you can track them down and give them a dose of their own medicine.

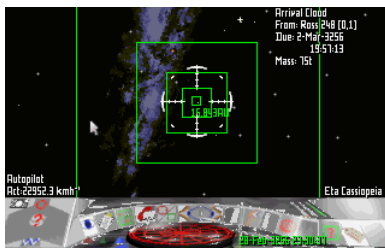
This is only a short section: it's actually very easy to intercept other ships. To prepare for this, it's a good idea to understand and be highly practised at



Figure 44: The System Orbit Map shows hyperspace entry clouds

moving relative to other objects (see the following sections for tutorials). You will also need an autopilot fitted — due to limitations of the HUD, ships greater than about 10,000km don't appear on-screen (but the autopilot can still track them).

Hyperspace entry clouds appear as blue dots on the System Orbit Map (See Figure 44. Pull up the map, and zoom out. If you've just hyperspaced in, your own cloud will appear on the orbit map. You can tell it's yours because when you select it and go back to the front view, the cloud will be very close (you can also check with the hyperspace cloud analyser). To select a cloud, press T then click on the blue dot.



This cloud is quite a long way off. Something with a mass of 75t is going to come through. When selecting the cloud, it's a good idea to press F5 to go to the Battle Console, then select it again so the hyperspace cloud analyser can tell you what's coming through.



The target ship has emerged. However, it did so when we were still over 2 AU away. Unfortunately, it won't appear on the HUD. However, the autopilot will continue to track it. Leave the autopilot and stardreamer on until you notice your ship making a couple of wild gyrations (the autopilot is then adjusting course for a final intercept).

Going to the Battle Console will tell you what sort of ship it is, so long as you have a radar mapper.



We are now getting reasonably close, and the target is on the HUD. We can even have a quick chat with the other commander, if we wish. The information here shows that this guy isn't a pirate after all, so we won't blow him up. But we'll continue the intercept just to be sociable.



Figure 45: Assaulting an Imperial secret base



We are now with the other ship — only 90 metres away in fact. As you can see, the Cobra is now decelerating as he starts to approach his destination.

What about faster ships? I've heard a lot of people say "Alright, so you can intercept a ship. But I've got a really fast ship, how can anyone intercept me?" It's really quite simple. Sooner or later you are going to start decelerating for your destination. Assuming that the pirate who attacked you started at pretty much the point you arrived in the system, they will catch you shortly after you start decelerating. The autopilot is quite capable of doing this manoeuvre.

Special thanks to Commander Zeke Smith for taking part in this demonstration in his Cobra Mk 1 HW-175.

3.13 Planetary combat

Planetary attack requires slightly different skills from normal space combat. The ground being really close is the main complication. Additionally, planetary attack targets like the Imperial secret base that was discovered by AIS Intelligence in Giclas 158-27 are usually very well defended. This means that certain techniques are worth doing to avoid being blown to smithereens before you can even get close to your objective. Planetary attack and reconnaissance photography can be done using exactly the same techniques (except with photography, you typically want to get a bit closer, and you're not going to blow anything up except the fighters that will attack you).

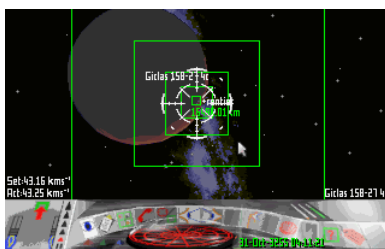
The techniques aren't difficult to master. However, before you attack anywhere that's well defended, you need a good ship. Going in a Saker is likely to mean suicide. Expect to be attacked by several ships at once on the way in, and expect to be attacked with NN550 missiles, which cannot be ECM'd. This means you need enough shields to take some missile hits. Don't take a huge ship either: you do need quite a bit of maneuverability when combatting the defenders close to the ground. Something the size of an Asp, Cobra Mk 3 or a Harris is typically a good ship to use for these missions. Deck it out with as many shields as you can fit, and the 4MW laser is handy. Alternately, you can go for more shield generators and a 1MW beam or a 5MW pulse instead (see

Chapter 6 ‘Equipment’ for a full discussion of combat hardware.) Don’t forget that some targets are protected by a Military Defence Satellite — be sure to take this out before continuing with the mission. Also, don’t forget to set the system to hyperspace out to once the mission is accomplished. You don’t want to waste any time having to select the system whilst you are being pursued by the target’s defending fighters!

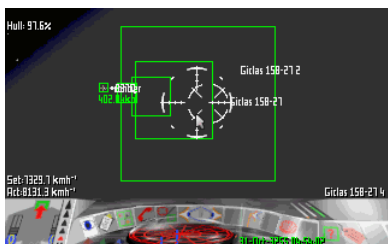
The base at Giclas 158-27 4c The Alliance Join Navy found evidence that the Imperial Seventh Protectorate was setting up a secret base in the independent system Giclas 158-27 to spy on Alliance movements. Although this system isn’t right on the frontier of Alliance space (in fact, it’s pretty much nestled in with Federation systems), it’s close enough for them to use as a nice, inconspicuous base for launching various missions into Alliance space which were not necessarily helpful to the Alliance or the AJN. The AJN was therefore anxious to find out what was going on there so they could decide what action to take. The Alliance in fact did end up blowing the base up — the photographs revealed a stockpile of nuclear weapons, so a preemptive strike was initiated. The Empire of course squealed like a stuck pig, but couldn’t really do a great deal about it. The Federation were also rather pleased, but somewhat embarrassed that they hadn’t found it themselves when it was so close to the Core Systems. (The Federation also had their turn to do some squealing when the AJN Intelligence Division smashed the spying ring they were trying to set up within the Alliance). Even so, neither the Empire nor the Feds have learned their lesson; the AJN continuously have to be on guard, and the AJN Intelligence Branch get plenty of opportunities to blow up installations like this one.



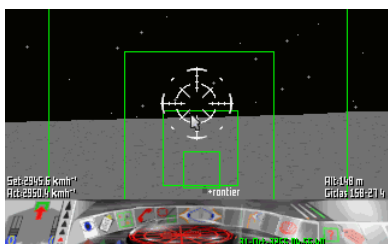
First, the map screen. Go to the orbital chart and zoom in on the planet where the suspect structure is. Rotate the image of the planet, and you’ll usually find an unmarked structure. Select this — it should appear as a small cross.



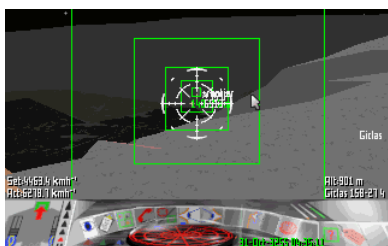
Then fly to the target. The autopilot should get you most of the way. Once you’re close, it’s best to be on manual, I find. Aim slightly before the target, so you can get a low-level run. This helps you evade detection. You will probably get attacked a couple of times, but if you go straight in, you will be attacked a lot more! If you have labels on (recommended), the target structure should be labelled +rontier most of the time. Quite why, I don’t know...



As you get closer, be sure to reduce your speed to something sensible. Approaching the ground closely at tens of thousands of kph (or worse, kps!) is a recipe for CFIT (Controlled Flight into Terrain). This will of course make your day rather miserable. Aim for about 200 km short of the target. Keep below 10,000 kph at this stage.

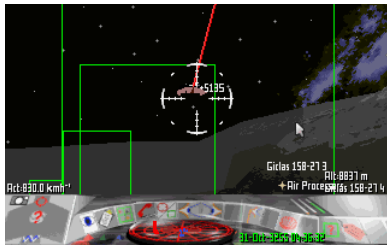


Try to skim the ground as closely as possible — typically below 400m works well. You won't get attacked for most of the way in. The defenders typically aren't that competent and will collide with terrain in a desperate attempt to stop you. However, be prepared: when you get close to the target, you will get attacked by quite a large number of defenders. This particular base was at the bottom of an incredibly deep canyon — here we are skimming along the plateau that leads to the canyon.

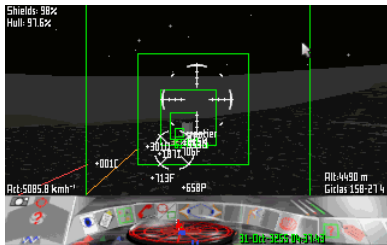


Hurling over the precipice into the canyon, this is where the danger level picks up by an order of magnitude. Now the defenders can clearly see you approaching on their scanners. Prepare to be attacked. If you look carefully at the target, you'll see a jumbled mess of labels. This indicates that numerous fighters have already been launched, and are heading for an intercept.

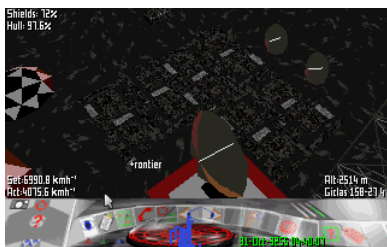
This canyon is approximately 10km deep. As you teeter over the edge of the canyon, try and follow the terrain as closely as possible. This will make it harder for the defenders to attack you — they can't get behind you very easily. Also, start slowing down. It is best to be going less than 1000 km/h when in combat close to the ground. This will allow you more time to rectify problems such as ensuring you don't slam into the terrain. If you go too fast, you could find yourself hurtling towards the ground without sufficient thruster power to prevent the impact.



Combat close to the ground is very exciting. Don't forget that your engines will automatically be in Manual when you are attacked. That means that the computer will not be automatically compensating for gravity, so remember to watch your altitude, and thrust yourself away from the ground. You now also have new techniques to bring to bear against multiple attackers: if you're good, you can dive towards the ground, time it right... and many of your attackers will probably drive straight into the ground. However, be on your guard for this happening to you! The ground will smite you far quicker than any 4MW beam laser will.



At this point, we are very close to our target, which for this mission is going to be photographed. Defending fighters now abound — there are seven visible at this time. I find the best strategy at this point is speed up for the final run. If I get the opportunity, I try and pick off some of the defending fighters. Typically, if you've timed your acceleration run in correctly, they will have a hard time staying with you because you'll rocket on by whilst they have to turn around to catch you up. However, by that time your objective will be complete, and you'll be climbing out so that you can hyperspace away.



We got right within the base on this one, and took some excellent recon photographs, showing the AJN Intelligence Division exactly what the Empire were plotting. This is a good point at which to climb out as quickly as possible, and hyperspace away. Mission accomplished!

The technique shown above has served me well. Although you do want to use this as an opportunity to improve your Elite rating, the low level run in prevents the defending fighters from overwhelming you. Never ever forget about the proximity of the ground when you are trying to fend off the defence fighters as you get close in! Many of these missions fail not because the recon/bombing flight was shot down — quite often the terrain itself claims the flight. It's a good idea to practise high speed, low level flight before you take the mission on. Find any suitable moon and practise low level flight without the stress of being attacked by multiple fighters!

3.14 Full manual flight control (Advanced)

All combaters have flown on manual control — it's required to be able to do combat at all. However, most have only performed combat with basic manual control, a mode that comes with all ships. Basic manual control gives you six

degrees of freedom: yaw left/right (or roll, depending on your preference), pitch up/down and thrust forwards/reverse. On the face of it, this sounds pretty good: you can point your ship at the enemy using a combination of pitch and yaw, then bring yourself closer by operating the main thruster — or slow your relative closure by operating the retros. Or even flip over and fight with the rear laser, using the main thruster to prevent the enemy from overtaking you. But full manual control is something else.

Full manual control gives you a further four degrees of freedom — slide up/down, and slide left/right. Combined with thrust/retro and yaw and pitch, you have a staggering combination of manoeuvres you can pull off. For instance, you can thrust, pitch, slide up and right all at the same time, whilst yawing too. Against the normal run of the mill enemy, this gives you a serious advantage. However, you must know how to use the thrusters effectively. These instructions will hopefully equip you with the skills and the knowledge you need to use full manual control to gain the rightfully respected Elite rating.

Basics To learn the basics, we'll use an asteroidal body: please report to Rance's Grave, in Enedlia [1,5]. It orbits Molotovworld in the Enedlia system. This asteroid is a good practise ground because the ship never takes the asteroid as a frame of reference – it always remains at Molotovworld. This means that if you follow the motion crosshairs of your ship, or use fly-by-wire control, you'll crash. Instead you must think relative to Rance's grave, and ignore these displays. First I will discuss what the various controls do in full manual mode, then we'll go on the exercise.

The side and top/bottom thrusters are actually pretty powerful — usually somewhere in the region of the ship's retros. The first principle for the kind of flying we're about to do is small corrections. Don't lean on a thruster for a long time. Just quick taps on the appropriate thruster control are required.

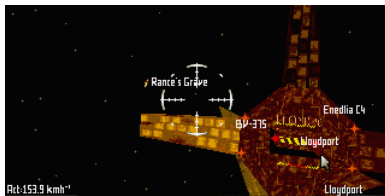
Firstly, the standard manual setup — or “Jordanian Controls”, consist of the following. In the commander's left hand are the thrust controls on the numeric keypad — main (8), retro (5), left (7), right (9), up (4) and down (1). If you're a life-form with long, flexible fingers (or better still, tentacles) this is easier. Some humans have found it easier to tilt the keyboard, so as to reach (4) and (1) with their little finger. In the commander's right hand is the pitch/yaw (or roll, depending on your preferences) control — normally a mouse, since this gives the greatest amount of aiming precision.

Secondly, if you've not yet become used to the fact that your direction of travel is not necessarily where your nose is pointed, you need to. Hopefully, this exercise will help you understand it at a deep, subconscious level. It is quite alien to anyone who's only used to flying in an atmosphere, or maybe only moving on the ground on a planet. I suggest you repeat this exercise until you can fly around Rance's Grave without even thinking. You should be doing this automatically — without having to think which control to operate — before you throw yourself into a combat situation. Otherwise, you're probably dead meat. Or dead cyborg, depending on whether you are organism or machine.

Practical flying Now for the fun bit, the practical part of the lesson. Remember the laws of motion as put down by our old friend Sir Isaac Newton — every action has an equal and opposite reaction. This means if we fire the left

thruster, we'll move right. Press the external view key, and experiment a bit — fire various thrusters and watch which way the ship moves. On most ships, you can easily see the thrusters firing. Press the 7 key to move left. Remember that there's no friction in space, so until you press the 9 key for an equal duration, you'll keep moving left — you won't just come to a stop like you would if you were in an atmosphere. This will become very clear during our flight exercise. Without further ado, let's launch.

Launch from Lloydport Station, and turn your engines to manual. (If they were already manual before you docked, then you'll find yourself stationary in the docking tube, still on manual). Thrust out of the docking tube yourself, using the main thruster (8). Don't press it for long — just long enough until you're going about about 300 kph. For variety, you might like to rotate the ship so the nose is pointing at the wall. If you rotate left to point at the wall, press the key for the left thruster (9) and you'll start to move out of the docking port. Don't blame me if control gets mad at you — you're the pilot in command, so it's your responsibility!



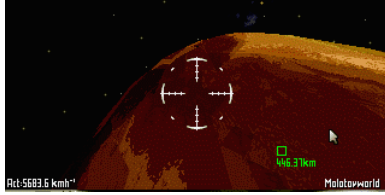
Turn the ship around with the mouse. You might want to put labels on at this point to make Rance's Grave a bit easier to find. Click on Rance's grave to select it — this will give you a distance to target. Use the main thruster to start moving towards it. In the situation shown, you'd also use the right

thruster to move the ship left (7) so we don't smack into part of Lloydport. If launching sideways annoys them, smacking into the port annoys them much more because then they have to do lots of paperwork. Accelerate to about 40,000 kps relative to Lloydport (and later, Molotovworld). Don't set the stardreamer above number 8. As you get closer, keep it to number 8 or below.

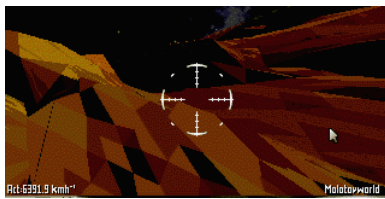


As you approach the lozenge-shaped asteroid, keep it in the centre of your laser sights solely by using the thruster controls — don't try and point the ship with the mouse. This will help you get used to the controls. Decelerate with the retros (5) and use the left/right (7/9) and up/down (4/1)

thrusters to keep the asteroid stationary in your front view. Note that the distance counter is to the core of the asteroid, not its surface! Also, note that although you are moving straight for the asteroid, your vector sight is nowhere to be seen. That's because the frame of reference is Molotovworld. Your vector sight will actually be pointed almost in the direction of Rance's Grave's orbital path.



Now you're just over the surface. Use the roll (the [and] keys) controls to level your ship relative to the asteroid's surface if necessary. At this stage, don't use more than stardreamer number 7 (in fact, you probably want to come to normal time). Point the nose where you want it, and use the thruster keys to lower yourself towards the surface. If you see the vector sight, ignore it — it really won't help you. At this stage, use small corrections. Don't press a thruster key for more than a very short period of time.



Now explore the surface. Your thruster blasts should be very short — just tap the relevant key momentarily. Use the thruster keys and the mouse to come as close to a hover as you can manage. Note the speed display. Although you are hovering, it shows over 6,000 kph. This is the speed relative to Molotovworld, not to the asteroid! Watch how firing various thrusters moves your ship relative to the asteroid's surface. Fly around the asteroid until you can do it without thinking. It will take a little practise to get precise (especially since the thrusters are effectively either all on or all off). You'll have to judge everything visually because you won't even get an altitude display!

Note: The game doesn't calculate the surface of non-spherical objects like asteroids very well, so you can end up sinking through the surface before crashing. Pretend the ground is a hard deck, and try not to fly through it...

Chapter 4

Careers

Tinker, tailor, soldier, spy? The modern pilot has a vast range of careers open to him, but the choice can be confusing! Each of the different careers available has advantages and disadvantages, not to mention the returns available. This chapter covers the possible careers. All career moves start with a contact, and you usually make these contacts at starport bulletin boards...

4.1 Bulletin Boards

Ye rad dudes, as they used to say, *comms are the future!* Way back in the Twentieth century, bulletin boards and Comms were the sole pursuit of sad little geeks with a computer keyboard, a huge phone bill and a text-only display. My, how far we've come... we don't need a keyboard anymore, and sometimes there are even pictures! It's an exciting digital world, just waiting to meet you, find out all about you, offer you huge sums of money and make you amazingly popular. It's true! All you need is your on-board computer, a few small hardware purchases and the nerve to stand up in front of the galaxy and shout 'Here I Am!' Don't worry though, we aren't going to set you in the deep end. Here's some small snippets of info that should help you along your way.

History of BBS Bulletin Boards exist on every colonised planet and starbase in the galaxy, and form the crux of the communication service for that area. They started back in the early 21st Century, replacing the long-outdated 'mail' system, providing a way of sending messages, information and other computer data to just about anyone, provided you had their address. Around that time, the notion of a World Wide network of computers was born on planet Earth — an idea that soon proved to be so popular that all other forms of media started to take advantage. Before anyone really expected it, TV networks closed down, the phone companies moved into fibre optics, video rental stores went bust, the banks collapsed and the postal services of planet Earth went bankrupt. Society, it would seem, was at an end.

But out of it all came a New Society: finally the digital age had come. As man moved into space, he took this new technology with him. Radio as it was known died, and the human race could finally connect with life across the galaxy.

This led into the bulletin board systems we have now, which were standardised in 2885, and are now the same wherever you go.

Bulletin boards are the mainstay of civilisation, and don't let anyone ever tell you anything different. Once you've tried a bulletin board, you will never walk away from it, and before you know it the whole of your life will revolve around the secrets that each board hides. That next page might have the fortune you've always been chasing. That offer of work could well lead to your next career leap. What are you waiting for?

How to connect Easy: simply click on the Communication Panel (F4) on the Main Console and then choose the Bulletin Board panel (F7)

The basis of the bulletin board is the Message List. Here you can find all the open messages left by other users of the board that will be of interest to you. There will be the odd flyer and mailer, and sometimes the police leave messages on there to trap black marketeers, but otherwise the BBS Message list is a hive of activity, changing daily with promises of work, excitement, adventure and hard cash. Isn't it time you logged on?

Selecting the Bulletin Board panel on your main console will bring up the message list, which takes the form of a scrolling vertical row of headings, with a small touch panel next to each. These will give you a brief description of the message within, which can be anything from *Ship Wanted* to *Give to Charity*. Some of the messages are quite carefully worded, so you would be advised to read them very carefully indeed.

Scroll through the list until you reach a message that interests you, and then touch the panel to link up with the contact who left the message. In case you aren't familiar with the concept of 'linking up', then we'll explain how the system works.

The touch panel next to your message connects up a direct video link between you and the advertiser allowing you to wrangle over the goods offered or the service requested.

A message on a Bulletin Board is only active for the length of time you are in the system.

Linking with a contact So you've found the ad that says "*All the free cash you could want. I don't want you to do anything. I just want to give you lots of money. Interested?*", and you want you want to know more. Clicking on the button next to the message will take you directly to the person who left it, and they will, if they are practised in the art of BBS communications, explain in detail what it is they are asking for, or providing. At this point there are a number of questions you can ask, and to simplify communications, your on board computer will have most of them all ready for you to transmit. Simply click on the button next to the question you want to ask, and the other person should come through with an answer straight away.

You can leave a conversation at any point without accepting what the person is offering, although it would be worth your while making a note of their name as some people will pay through the nose just to know where other people are.

One thing you should bear in mind is that all transactions are recorded by the BBS computer, and videotapes can be made available to galactic courts should you try and back down on an agreement. Once you have said yes, you

have to live by your word, or you'll find yourself without work in a very short space of time indeed.

Hiring and firing If you've just upgraded your ship and you find you need crew to fly it, or you're just sick of looking at the same people day in and day out, then the Bulletin Board is the place to start looking for willing candidates. Messages will generally follow the format "*Work Wanted*. Name of person, what they want." You can then enter into an immediate interview with the person, asking them what they would work for, how much experience they have and so on. Then, if you want, you can hire them and they will be added to your crew roster.

Requests for information Person A wants to find person B, and if you've seen person B, you can tell person A, and person A will pay you a pitiful number of credits. This requires you to remember the names of people you've seen so far on the bulletin boards. Sometimes a 'wanted' person is on board your ship. In this case, I advise you not to turn him over, since it will damage your reputation. And besides, the credit you get for it is not worth it. Turning over your passenger should only be done if you have agreed on getting half or all of the passenger's fee up front.

Taking on tasks Missions and tasks to complete are found at bulletin boards on orbital stations and spaceports. On almost every BBS there are some people who want other people killed, people who require transport for themselves, or just the ones that want information. Also, when in a Federal or Imperial system, there's always the military to work for, who have the more exciting missions. Also, sometimes there will be special missions relating to current events — read your newspapers!

Common tasks advertised on bulletin boards are requests for information, taxi missions, courier missions, assassinations, military work, shopping on the black market, and more. These are discussed on the following sections.

Unusual jobs Sometimes there are unusual jobs on offer, typically related to what's going on in the galaxy at the moment. If you scan the newspapers carefully, you'll often get clues as to what might be happening — such as the Dream Race to Wicca at the start of the game. And if complete the job, your actions will often make front page news in at least one of the newspapers.

There are a few glitches in some of the unusual jobs... these are detailed in the final section of this chapter.

4.2 Deliveries

4.2.1 Parcel courier

Humans aren't the only thing that need to travel around the galaxy. If you like, you can run a courier service for people, running packages back and forth between systems. You won't make as much money doing this, but there is the added benefit that packages can be carried in the cockpit, and therefore you don't actually need any extra cargo space to accept the job. Most people agree

that if they are already going to a system, it's a good idea to take as many packages with them as possible, so as to increase their profit margins.

This can be a useful sideline, as the parcels don't take up any cargo space. You'll be usually taking the object from one system to another.

Advantages You can sometimes get additional revenue from a trading trip if there's a contract to where you are going. Sometimes there are people willing to pay good money. The parcels don't take up much space.

Disadvantages The prices on offer are usually very small. You might not recover your fuel cost! That's why you should trade too. But high-price courier jobs are high-risk jobs — you might be taking something that someone doesn't want you to have. . . Also, convenient contracts are rare, and usually you'll have to go out of your way. In this case, it's a good idea to check if there's any useful trading to be done in the destination system.

How it works You take on delivery-missions at BBS. When taking on a delivery-mission, you are expected to take a small item (which doesn't take up any cargo-space) and deliver it to a nearby system. The risk of this mission depends upon the item(s) that are carried. When you are offered 2000 credits or more, you can guess that the item is 'hot' and that some people *are* going to try to stop you. Also, the person who's asking you to do the mission has information on the risk you're taking with it. The military also offer courier jobs.

4.2.2 Taxi cab

There are always plenty of persons on stations or planet side that want to get somewhere else in a hurry. Some of them just want to visit friends, and some of them want to disappear off the face of the system as quickly as possible. These advertisers will leave a message on the BBS telling you that they want a ship. Clicking on their message will give you a full description of where they want to go, and how much they are willing to pay. You can now question them on their reasons for travel, bargain over money, and then choose to accept or not as the case may be. You will need one extra Passenger Cabin for each of the people in the travelling group, so don't accept unless you are sure you have room for them.

There are always people who don't have a ship handy who are willing to pay *you* to fly them to the next system. Sometimes they need to get away from someone chasing them (and so you may get attacked on the way), or their ship has just broken down and they need to get somewhere in a hurry.

The amount of people you take is limited only by the number of passenger cabins you have fitted (you can't just chuck 'em in the cargo hold, mate!), but keep in mind that groups tend to adhere to a maximum number of 7 people, but that doesn't mean you can't take more than one group at a time — just make sure you get them to their destinations within a reasonable amount of time, so don't take a on group and then decided to stop off for a short holiday at that star you passed a week ago before you drop them off - they wont appreciate it!

An important thing to watch out for is their destination. Sometimes you will need to ask for a permit, or you'll end up with a hefty fine and a criminal record. Also, ask 'why so much money' — if you don't like the sound of it then walk away.

Loads of money can be made this way — sometimes groups are willing to pay upwards of 15,000 credits! That's more than you could earn in a month of trading. Remember to always ask for more money — more often than not (if you have a good reputation that is) they'll give you more, but 10 percent is the limit to their generosity.

Advantages As for courier work, but the fees are a lot higher, especially for contracts with more than one person.

Disadvantages As for courier work, but you also need cabins — which take up space. To do the job properly you really need 8 permanent cabins to retain flexibility or take multiple contracts.

Equipment *Essential:* passenger cabins, weapons (a surprising number of people are running away from someone). *Suggested:* Shield generators, Beam laser up to 4MW, ECM (naval ECM is better), Hull Auto-Repair for larger ships.

How it works You take on courier missions at BBSs. It is another A to B job, much like being a courier except that you will be taking people or other sentient beings to nearby star systems, instead of packages. You will need to fit some passenger cabins. You must get them to their destination within a month of taking the contract, otherwise they'll get angry and your reputation will go down.

4.3 Combateer

There are a range of possibilities open to the free-lance combateer. You could become a pirate, shooting down trading ships and stealing their cargo. Or you could become a bounty-hunter, shooting down pirates and collecting the reward. Or you could become an assassin, taking on contracts at BBSs. Let's face it, combat is how you win glory and honour. This is measured with your *Elite Ranking*, discussed first.

4.3.1 The Elite Rating

Your Elite rating is shown under your Commander Profile (F7) in the Inventory mode (F2).

Every new pilot is given the Elite rating of Harmless, and from that point on, if they want to, they can climb the ranks of the Elite ladder through prowess at combat. The Elite rating is much, much more than just a badge of honour, however: it can also earn you privileges at some of the most famous hotels, inns and grocery stores around the world.

The Elite Federation of Pilots are the governing body of the organisation, and it is these who monitor your combat through your career, assigning you

Harmless	–
Mostly harmless	4 kills
Poor	8 kills
Below average	16 kills
Average	32 kills
Above Average	64 kills
Competent	128 kills
Dangerous	1,000 kills
Deadly	3,000 kills
ELITE	6,000 kills

Table 4: Combat ratings

points on the number and type of kills that you make. If you are flying a small, relatively poorly defended ship and manage to take out a large, heavily armed battleship, you will score far more points than you would for taking out some Interplanetary Shuttles with an energy bomb. These points are classified information, and the only way you have of telling when you have made a kill that has earned you points is when you receive a message from the Elite Federation Of Pilots themselves, congratulating you on your excellent victory and sometimes awarding you a bounty, if the ship you destroyed was wanted by the Police at all.

With each successive level, the number of points you need to amass increases in size, so while you may only need ten kills to progress from Harmless to Mostly Harmless, you may need several hundred to go from competent to Dangerous.

The ‘Elite rating’ has nothing to do with how well you perform your duties. It’s just how many ships you’ve destroyed. Table 4 shows the various levels, and how many kills is needed for each one. I advise you to gain the status of ‘Competent’ as soon as possible, because then the people on bulletin boards will trust you to do their high-paid tasks. The really neat missions are only given to Competents or above.

4.3.2 Bounty hunter

This is one of the most glorious jobs in the galaxy. Imagine your self in the shoes of Boba Fett’s good brother. You fly into dangerous systems, and kill any and every pirate you find. Its a dangerous job, but a fun one, and your Elite rating benefits too.

The way it works is this. You fit a Radar Mapper to your ship. When you target a ship, the Radar Mapper gives you a run down on your target. Not only does it tell you the type of ship, drive, hull, shielding level, and any other special equipment, but also it tells you if there is a bounty on that ship. If there is, and you destroy it, the Elite Federation of Pilots will pay you that bounty. Bounty ranges from paltry amounts like 50 credits, to much more ‘worth the effort’ amounts in the region of 450–500 credits. On their own, these values look pretty puny, but remember that you are likely to meet many ships per system, and if just 5 ships have a bounty of 500, thats 2 and a half grand you just got — not bad really, is it? Also, any thing left of their ship you collect can be sold off, making you even more cash. Its a bit like pirating, but without

the ethical problems... And if times are hard, then you can simply cross the line and become the scum you were just hunting, while the pirate populations recover from your efficient work. No matter what career you have chosen, it's almost always good to have a Radar Mapper fitted so you can collect occasional bounties — if nothing more, then it at least pays for the fuel.

To be a Bounty Hunter you are going to need to be quite proficient with the old laser and dodging missiles. If you're not, then you're going to end up pretty dead pretty quickly, especially as you tend to be attacked by gangs of anything up to 6 ships at a time. (That's when the Scanner comes in handy). When all six ships have got beam lasers, it can get hairy! Here is how I normally deal with them. I fly away from them as quickly as I can, taking evasive manoeuvres. Soon (very soon if they are powerful) their lasers will overheat, and you can fly back and pick them off one by one whilst they can't shoot you. I have an auto-targeter too, so all I have to do is hit 'T' and wait until I pass the crosshairs over a ship — this automatically targets the ship, so there's no need to stop and click on it manually.

Make sure you watch out for missiles. I normally keep a finger hovering over the ECM button (E) button just in case. If the missile is impervious to my ECM, I usually have a few cheap missiles on my pylons which can be launched at the incoming missile and hopefully intercept it before it reaches my ship — you could use this instead of ECM whilst you don't have enough money to afford proper protection.

Equipment *Essential:* Radar Mapper, Beam Laser, Shield Generator(s), Scanner, some form of missile defence. *Suggested:* Cargo scoop, Naval ECM.

A good place to hunt for bounty is Holiacan [-3,5]. With a relatively small population, the authorities do not have the resources to patrol outside the immediate vicinity of the starports, and they actively encourage bounty-hunters.

4.3.3 Assassin

Another exciting career choice! Not exactly what my Career Advisor had in mind, but a good, decent, way of making a living none the less...

As an assassin, you are paid to kill people. Not a pleasant job, but as the song goes, someone's gotta do it. That someone, it appears, is you. Basically, you cruise the BBS system, looking for adverts from generous people wanting to give their boss/wife/stalker/evil-twin an 'extended holiday'. How very kind. Not only are they paying for the holiday, they are paying you to make sure that everything goes smoothly. You wouldn't want to disappoint them now, would you?

Find an advert that pays well (or not so well if your reputation is poor) and get the details. Should you accept the mission, you will be given further, more detailed information, which will be stored in your ship's computer (F2 for ship information, then F11 for outstanding contracts). You should see your contract you just agreed to there. You are told where you accepted the mission (because you have to go back to collect your reward), where and when you must complete the mission, what the ship is, and how much you are going to be paid for your troubles. All you have to do now is do it!

Once you know where your prey is going to be, go there. You should arrive with plenty of time to spare. Land at the port and make any adjustments to

your ship (upgrading, refuelling etc.) Now, request launch clearance a few days before your prey's scheduled departure, and move about a kilometre away and make a rough landing facing the port. (If you waited on the pad until after the prey left, you wouldn't get launch clearance, and would have to leave without it, and would have to pay a fine). Target the prey's ship and use the Stardreamer to get forward to a few seconds before the prey is due to leave the port. *Do not* destroy the ship before it is due to leave, since if you do, the target of the assassination (i.e. the person you are killing, not the ship) won't be on board yet, and you won't get your cash. Take off and hover where you are. Wait for the prey to take off, and follow. You can either attack the prey then and get loads of fines and Police Vipers chasing you, or you can wait for the prey to jump and follow them (if you have a Hyperspace Cloud Analyser), and then kill them in deep space.

Either way, once you have killed them go to the contracts screen again. It should say 'Done' next to the contract. If it doesn't, you've mucked it up. When it does say the contract is done, head back to where you took the mission. (It will tell you in the contract screen if you've forgotten, sieve-brain!) Once you land at the port, you'll get a message from the deceased's benefactor expressing their 'grief' — and your cash in used notes left in a brown leather briefcase next to the phone-booth in the local Bar...

There can be a lot of money made in assassinations. You can get paid up to 50,000 for a single assassination. Just make sure you have a good ship.

Here is another way to fulfill an assassination contract. Have a great big ship with plenty of shields — an Imperial Explorer will do fine. Hover above your intended victim just before he takes off. When he does, he runs straight into you and does himself in. The police don't care because it was (ahem) 'accidental'. Obviously if you have an Imperial Explorer you don't actually need the money from assassinations, but any ship bigger than your target will usually work. You'll have to make sure you're not hovering over the target for too long or you start to be threatened by the Police — so watch it, sunshine!

Equipment *Essential:* Radar mapper, Beam laser, Hyperspace cloud analyser. *Suggested:* Missiles, Shield generator(s).

How it works These missions are advertised at BBS. They will be tied to your Elite ranking: if your rank is too low, then the people offering well-paid difficult missions will just laugh at you. About 'below-average' will do for the low-priced assassinations. Most ships you are to destroy are bigger transport vessels (Lion transports, Boa's, Clippers). To keep your record clean, you'll need to perform the kill away from space station, and therefore need a hyperspace cloud analyser. The Military and Navy will also ask you to perform assassinations.

Due to bugs in the game, there is a 1 in about 100 chance that a prey will never leave an orbital port: therefore the mission will never work. To avoid this, you should only accept missions at planetary ports.

Also, due to more bugs, the contract sometimes never gets acknowledged as 'Done'. You should save before the prey leaves the starport, so you can reload in this case. If you let them hyperspace the first time, try attacking them before they hyperspace the next.

Sometimes a starport is so full that your prey has had to make other plans,

and does not appear at the scheduled time or place. This can particularly be a problem with the smaller starports like Sirroco Station in Ross 154, which only has two landing pads. There's only one way around this — save your game before jumping in. Each time you jump, the ships in the system are randomly reset. So maybe, although the starport was full the first time, it might be empty the next.

4.3.4 Pirate

The main requirement to becoming a successful pirate is to have a Hyperspace Cloud Analyser fitted to your craft. If you analyse an orange hyperspace departure cloud, and click the analyser button, it will tell you where and when a ship is due, so you can 'chase' the ship through hyperspace. If you target a blue hyperspace re-entry cloud with it (i.e. target it in combat mode and click on the analyser button) it will give you details of what it is and when it is coming through the wormhole. Blue clouds are also shown on the system maps of the system you're currently in, so you can find everyone who is arriving.

Once you have picked a re-entry cloud, you need to go there and wait for the prey to arrive. So, target it in the system orbit map, and set the auto-pilot to work for you. You may reach the cloud before your prey re-enters, or you may not — it depends how far away you are from it. You can tell if the prey has re-entered if you have an analyser, because the cloud details will disappear. If you haven't got an analyser then the target for the autopilot will swing round, and align with a planet in the distance — i.e. where the prey is going.

Now is where the fun starts. The prey will still be targeted for navigation, so click on the communications panel, and talk to the ship (i.e. not send a message to all in range). I normally don't bother with the chit-chat of asking what he's up to, and just straight down to 'Surrender or Die'. The prey always reply with 'Ha Ha', and change course to intercept you. Put the Stardreamer up to full and wait. In a few moments the prey will begin to attack (the Stardreamer will automatically go to normal speed once you are attacked, and the autopilot will turn itself off). Because your prey is just a trader, they never really have anything more powerful than a 1MW beam laser (although occasionally they have more powerful weapons), and never have shields. Quickly dispatch your foe and wait for any cargo which they leave behind. Scoop up anything that looks good (you can even pick up the odd canister of Gem Stones, Nerve Gas, or even Alien Artifacts).

Now, depending on how much damage you sustained (probably none) you may want to go back to the star port and sell off your booty, make repairs, upgrade etc; or you may just want to find another cloud using the system map and do it all over again.

Although this description is a bit long-winded, it is quite easy to do, and it starts to become quite natural after a while. Keep it up and there can be a lot of money to be made in this. It won't be long before you can upgrade ships etc.

Equipment *Essential:* Hyperspace Cloud Analyser, Cargo Scoop. *Suggested:* Beam Laser (any size), 1 Shield Generator, Radar Mapper.

4.4 Military

If you want to get anywhere in the galaxy, the best place to start is with a military career. Many young pilots soon find themselves on the bottom of the military career ladder, and find the benefits of climbing the ranks is worth more than just a title before your name. You get glamour, travel, action, excitement and a really involvement in the things that are going on today. Sound like your kind of caper? Then what are you waiting for? Sign up!

At the start of your career, you can either sign up as a full member of the military, at which point you can kiss good-bye to your life and look forward to ten years at an academy and then the rest of your time in space guarding prison ships. Or you can sign up as a freelance agent — a mercenary. As a free agent you work when you want to, checking the bulletin boards for signs of work, collecting the jobs and missions that fit in with what you want to do, rather than what the Military want you to do. We recommend that all pilots join as freelance agents, as the academies currently have a seven year waiting list and the prison ships couldn't be any more guarded. Even if you are primarily a trader or a bounty-hunter, it's always worth contacting the Military to see if they have anything on their books that might be suitable.

The two military services From the outset, you will need to decide which of the two opposing factions you want to work with — the Federal Military or the Imperial Navy. Although both have completely different ideals, and sit in completely different parts of the galaxy, they will both offer you a similar career structure and development program. The original military faction, the Federal Military, are based towards the centre of the galaxy, with their main operations base on Earth, the home of humankind. The Empire, with it's more feudal structure, arrived not long after and set up the Imperial home on Achenar, towards the south.

Looking at the map, you'll see that the two zones aren't that far apart at all, and many pilots have become very rich and well respected by working for both at the same time, flitting back and forth between the systems. Both military parties will allow you to work for the opposing side, but attacking a military craft or installation while working for the other side will count against your promotion heavily.

When you first start out, you will be offered the most mundane and boring missions you could possibly imagine, like delivering blank order cards to a very safe system. Don't get bored and give up, for as you prove yourself, you will be promoted and offered more and more exciting missions, from assassination to destroying planet bases. The military life can be a rich and rewarding one, provided you stick to the rules. Failing on a mission doesn't just mean that you don't make the points on that one — you will actually have points removed, so try not to take on missions you won't be able to complete.

Playing the traitor is another way to have points removed. For instance, suppose you hold rank in both the Federal Military and the Imperial Navy. You've just gone on a recon mission, and taken embarrassing photographs of the President of the Federation and the First Lady on their secret love nest on Mars. You arrive back at Facece, where the Empire reward you for your audacity. Meanwhile in Eta Cassiopeia, the Federation are understandably angry at what you have done, and lower your rank. They might lower it so far that they no

longer give you certain trusted missions. Serves you right for being traitorous scum. . .

How it works At first, you keep on doing missions that require you to carry something or other to a nearby star, e.g. ‘Take these files to Sol’, or ‘Transport this super-conducting wire to Ross 128’. Watch out as there are likely to be pirates wanting to attack you whilst you are on a mission. You are given a date by which the mission must be completed — if you don’t complete it then you get a good ticking-off from head-quarters, and it goes on your record. Initially you are only likely to get paid about 200 credits per mission, but you can take multiple missions at once — just make sure you can complete them in time. Try to find a system where there is always a lot of missions. Slowly, you will get promoted up through the ranks until you start to get ‘proper’ missions — photographing enemy bases, assassinating a double-agent, bombing a rebel base somewhere etc. This is where the better money comes in.

Military missions have a direct influence on what the Military think of you. This is noticeable in the form of a ranking system, discussed in the following section, and also in availability of missions. A commander who’s not trusted by the Military (or who is inexperienced), is given fewer and less exciting missions than a trusted commander.

All missions have a date by which they must be completed, and more advanced missions have a date and time when they are to be carried out. Make sure you can be there before you accept.

All missions have a set price, so make sure that the cost of the mission is less than the money you will make on it. Both military organisations have a set policy of offering a fixed price on all missions. Trying to squeeze up the payment for a mission is a risky business and may damage your reputation within the department.

All craft used in military duties must be clean and tidy, and the pilot must be presentable. Sloppy appearance leads to sloppy attitude.

Equipment *Essential:* Laser. *Suggested:* Military drive.

Recon missions You score high with the Military command if you succeed in these missions. These missions require you to photograph a site using the camera you’re given (and you get to keep it!) To take the snaps, press D to activate the camera, or click on the icon — either way it makes a satisfying clunk.

When you photograph a site from a very close distance (below 10km or so) you’ll get extra credit for it. These close-quarter recon shots are classed as ‘excellent’ by the military powers. But don’t try to get an ‘excellent’ until you’ve done a few regular photos already, since they are more dangerous.

Sometimes you get close to your recon target, and a mysterious force pushes you back *fast*. Unfortunately there’s nothing that can be done about this. Just try to get within about 100km to take the photo, and leave.

Bombing missions Paid well, these missions have a high ‘promotion value’ for your Military career. You are to destroy a specific site on a planet or moon in a nearby star system, using a nuclear missile that you are given. Expect

Federation	Empire	Points	Missions available
None	Outsider	0	Delivery
Private	Serf	2	
Corporal	Master	16	
Sergeant	Sir	82	
Sergeant-Major	Squire	256	Assassinations
Major	Lord	625/576	
Colonel	Baron	1,296	Bombing
Lieutenant	Viscount	2,402	
Lieut. Commander	Count	4,096	
Captain	Earl	6,562	
Commodore	Marquis	10,000	
Rear Admiral	Duke	14,642	
Admiral	Prince	20,736	
Delivery = 2 points		Assassination = 14 points	
Photo = 16 points		Bombing = 18 points	
Excellent photo = 20 points			

Table 5: Military Ranks

heavy opposition when you approach the target. (Before accepting the mission, make sure you have a spare missile pylon, otherwise it won't be loaded on your ship and you will therefore fail!)

Classified missions These are essentially the same as normal recon missions, but the system will be guarded by a military defence satellite. These broadcast your ship ID to whoever owns the base, and they will send hordes of assassins to take you out.

Fortunately, your employers will give you a transmission jammer to block the satellite's signal while you're in the system (the jammer is automatic) and a nuclear missile to destroy the satellite so it can't transmit when you leave. As soon as you enter the system, the transmission jammer automatically activates itself. If after taking a mission where you were supposed to blow up a satellite, but you didn't, you will be attacked constantly pretty much where ever you are — even the other side of the galaxy!

The transmission jammer requires a military drive. If you had just a hydrogen drive, then the jammer interacts with the satellite signal in such a way to overload the drive and destroy the ship, like a giant energy bomb. To be eligible for classified missions, you must already have a military drive.

The Satellite is a very large craft, with a civil ID (letter letter – number number number). It will be orbiting one of the planets in the system, and is visible on the 3D system map. Select it as your autopilot target, and activate stardreamer until you're close to it.

Once you can see it, select it as your combat target (hit F5 to bring up the combat console, left click on the red circle on the combat console, and then left click on the satellite). Then fire the nuke at it by clicking the black and white missile icon. Once the satellite's dead, do the recon in the normal way.

Federation	Empire	When awarded
Certificate of Valour	Crimson Brassard	First 'important' delivery
Starburst	Black Polygon	First secret delivery
Purple Omega	Golden Spike	First assassination
Vermilion Crest	Platinum Cross	First Photo mission
Blue Excelsior	Legion of Honour	First 'excellent' photo
Frontier Medal	Celestial Warrior	First bombing mission

Table 6: Military Medals

4.4.1 Rank and medals

Like the Elite rating, you progress through the ranks of the military based upon the number of missions you do, and their difficulty level. Do the missions right, and you'll get promoted to a higher rank. The higher your rank, the more missions you'll be able to take.

Although you will step through the early ranks reasonably quickly, it will take a lot of time and effort to get anywhere near the top. The ranks are worked out on a points system, with each type of mission being accorded a certain value. As you continue to do missions, your points score will increase along with it. At certain scores you will be promoted. See Table 5.

Medals These, on the whole, are granted by the Navies of Federation or the Empire only for deeds of exceptional courage — although there are times when one side will grant you a medal purely to annoy the opposition (if, for instance, you have just successfully photographed their most closely guarded military base). See Table 6. (Note that your first photo mission shouldn't be 'excellent' otherwise you won't get the 4th medal.)

The Alliance of Independent States, not having a Navy to speak of, does not believe in the medal system as a valid means of rewarding pilots in its employ and is more likely to give you a rather neat ship — if you're particularly successful.

Your medal collection is also shown under the Inventory Panel (F2) in the Commander Profile (F7). Note that the medals screen actually overflows by one line, so your final medal might just be hidden behind the console. . .

Sometimes, for reasons known only to themselves, the military decide not to award you some of the early medals. And there's nothing you can do about it.

4.5 Trading

Trading is one of the oldest professions in the space game. It is a safe way to make big money, but can get boring, especially in a safe route. The idea is to find a pair of ports (they could even be within a single systems) where you can sell a product for more than you brought it for. Ideally, you want ports where you can buy and sell at each, so you are making money on every journey. Here is an example: buy Luxury Goods in Sol, sell in Barnards Star; then buy Robots, and sell those back in Sol. And repeat. As I'm sure you can see, this can become rather tedious!

If you are in a safe set of systems, and you want an even bigger profit, then strip your ship down — remove all equipment except your automatic-pilot and navigation computer. That way you can completely fill your ship with goods. (Imagine a Transit van with a machine gun post and 2-inch armour plating filling up the back of the van — not very useful if you are just moving fruit and veg across town, is it?)

If you have enough money to upgrade to a bigger ship (and still have enough money to buy goods afterward), then do so — but check that there is crew available before hand of you are going to need them. There is nothing more annoying than buying a new ship, filling it up with goods, prep for take off, and then realise that you need another crew member and there aren't any looking for work.

Pay careful attention to the legal status of goods in your destination system — something might be legal in the system where you buy it, and illegal in the destination system.

Advantages If you find a good route, you can make quite a bit of money. Trading is (usually) completely legal, and therefore you're unlikely to have much trouble with the Law. Trading is generally very safe, providing you keep to systems you feel safe in. Precisely how risky a run can be varies from system to system. Some systems carry a very high risk of pirate attacks.

Disadvantages Not many. The main 'problem' is that you will get sick of shuttling cargo between the systems, as it can get repetitive. Sometimes the profits can be quite small.

Goods wanted It is not uncommon to find that the stock market is completely sold out of the goods you want to sell. If you do decided to trade (and all of us have to at one point) then always keep a look out for private buyers on the BBS who are willing to buy goods at a substantial premium. While you can, of course, still sell on the open stock market, the private buyers will offer a much better rate — usually around twice the market price.

You should get into the habit of checking the bulletin board as soon as you land. Look for adverts reading like *Wanted: medicines. Will pay 2000 credits.* In some cases, there may be more than one buyer, and the price offered may be different. Always sell to the highest bidder.

A good example of this is Robots at Sol — there are never any in stock, and people are willing to pay about 1700 credits per tonne, and you only brought them for 500 credits per tonne back in Barnard's Star. Not a bad little profit!

Economics The economics of trading can be summed up in one phrase — “buy low, sell high”. You make your money by buying certain cargos cheaply in one system and selling them in another system, hopefully for a much higher price. The difference between the sale price and the purchase price is profit (extra cash) if it is positive, and a loss if it is negative. You should make a profit as often as possible, since this is the path to riches.

Star systems tend to only have a single economy type — i.e. they will only produce certain types of cargo. Sometimes you'll be able to deduce the economy type from the information on the main section of the sector map (e.g. when

a system is marked as 'Imperial Industrial and Mining Colony'), and in other cases from what it imports and exports.

As a general rule, systems based on agriculture will sell foodstuffs and other farm products cheaply, and will offer good prices for industrially-produced goods. Industrial systems will sell manufactured products cheaply and pay good prices for agricultural products. So a good trading route should go between an agricultural and an industrial system.

Your ship's galactic database can take some of the guesswork out of trading, since it says for each system what the principle exports and imports are.

Illegal goods People always want the things they can't have, and the moment an item gets on the banned list of goods, a whole new market opens up with people buying and selling at ridiculously high prices. This is a way to make a very high amount of money very quickly, so look out for the messages that start with the words *Goods bought and sold*. Very occasionally, though, the Police will leave a message like this on a board to catch black marketeers, so be careful who you speak to. Participating in the black market can earn you tons of cash, but can also cost you your ship — not to mention your life.

The Governments of the various inhabited systems all have their own ideas about what products are legal and what products aren't. It is quite possible that a product you bought on the open market in one system is prohibited in the next system you visit. If you land at a starport carrying illegal goods, expect to be fined and a smuggling charge added to your record. "It was legal in Vequess, Officer" is not a valid excuse.

The list of illegal goods can vary markedly from system to system. To a certain extent, the system's allegiance has a large effect on which products are prohibited: each of the three main powers have their own laws, and in general all the systems in a particular power will usually have the same customs laws.

There are still variations from system to system, either due to local traditions or diplomatic agreements (the Imperial system Cemiess, for example, used to be a Federation colony and under the terms of the Emerald Treaty retains the original Federal customs laws). The systems of the Empire have the least variation in customs laws — although this is more due to the fact that so few goods are illegal, than to the greater degree of central control. The Alliance of Independent Systems tends to have quite a lot of variation in customs laws — the most famous example being Gateway's tolerance of nerve gas.

Fortunately, it is possible to determine in advance which products are illegal in a particular system. After a trader successfully appealed a smuggling conviction on the grounds that there was no advanced warning on prohibited goods before entering a system, all galactic charts issued since 3180 have included a list of illegal goods in the system data.

4.5.1 Some popular trade routes

Sol — Barnard's Star

The run between Barnard's Star and Sol is very popular with traders who are just starting out. This is because it is almost totally safe (since it is in the heart of the Federation), so you will not be attacked. Well, not by pirates at least — the Federal Revenue Service may be keen to pay you a visit...

At Barnard's Star, buy Computers and Robots. At Sol, buy Fruit & veg. There are sometimes people willing to pay twice market price to purchase them at Barnard, since the system is always out of stock. Luxuries and Liquor are also possible, although these are never out of stock.

Since weapons won't be needed, you can maximise cargo space by stripping everything off your ship apart from Navigation Computer and Autopilot. Once you have enough money, upgrade to a bigger ship, to carry more cargo. And remember: always check the BBS for people paying special prices.



Sol [0,0]

Good buys: Fruit&veg for Barnard's Star

Exports: Liquor, luxuries, (minor) Fruit&veg, animal meats

Imports: Computers, farm machinery, (minor) heavy plastics, metal alloys, robots

Shortages: Medicines, computers, robots, nerve gas

Barnard's Star [-1,0]

Good buys: Computers, robots for Sol

Exports: Synthetic meat, fertiliser, heavy plastics, metal alloys, industrial parts, computers, farm machinery, robots, (minor) medicines

Imports: Grain, fruit&veg, animal meat, minerals, (minor) water, liquid oxygen, liquor, luxuries

Shortages: Grain, fruit&veg, narcotics, animal skins, nerve gas

Sol — van Maanen's Star — Barnards Star

Van Maanen's is a hard-line religious dictatorship belonging to a religious sect call *The Guardians of the Free Spirit*. They believe in maximum hardship, and all enjoyable goods like luxuries, liquor, narcotics and nerve gas are illegal — and hence highly profitable! You also need a permit to visit.

This trade route involves taking Luxuries from Sol to van Maanen's (sell them on the black market), then Fruit & veg to Barnard's, then Robots back to Sol. By having a three-legged trade route you can make more from each individual leg, than you would just going backwards and forwards between two systems.

This route is somewhat dangerous, and you are likely to get attacked, so first make sure you are capable of defending yourself. Also, when you arrive in van Maanen's, you will be fined for entering without a permit and for ferrying illegal goods. Pay the fine *immediately* to avoid attack. Put it down to 'operating expenses'...

When you can afford it, upgrade your ship so it can carry more cargo. But don't get something too big and sluggish, otherwise it won't be able to defend

itself. And remember: always check the BBS for people paying special prices.



van Maanen's Star [0,1]

Good buys: Fruit&veg for Barnard's Star

Exports: Chaff, (minor) Gem stones, Minerals

Imports: (minor) Water, Liquid oxygen, air processors

Illegal: Luxuries, liquor, narcotics, live animals, animal meat, animal skins, slaves, hand weapons, battle weapons, nerve gas

Barnard's Star [-1,0]

Good buys: Computers, robots for Sol

Sol [0,0]

Good buys: Luxuries for van Maanen's

Gateway – Sohalia

There is currently a plague epidemic on Sohalia. Medicines are in short supply, and you can make lots of money supplying them. Who said there's anything wrong about profiting from human misery? Remember: check the BBS for people paying extra for medicines. (If eventually the plague is cured, then they will stop advertising and the route will become less profitable.)

The route is very dangerous. If you live through this your Elite rating should be about Average in only a few months. If you're sharp enough on your trigger finger, you might prefer to sell your missiles so as to fit in more cargo.



Sohalia [-1,5]

Good buys: none

Exports: Fertiliser, heavy plastics, metal alloys, hydrogen fuel, military fuel, industrial parts, computers, air processors, farm machinery, robots, (minor) synthetic meat, precious metals

Imports: Grain, fruit&veg, animal meat, minerals, (minor) water, liquid oxygen, liquor, luxuries

Illegal: Narcotics, live animals, slaves, battle weapons, nerve gas

Shortages: Medicines

Gateway [-1,4]

Good buys: Medicines for Sohalia

Exports: Animal meat, medicines, animal skins, (minor) water, liquid oxygen, grain, liquor, luxuries

Imports: Heavy plastics, farm machinery, robots, (minor) hand weapons, industrial parts

Shortages: Hand weapons, robots

Facece — Vequess

Facece is an Imperial naval base, with training academies on many of the planets. The trade route involves taking live animals or animal skins from Facece to Vequess, and returning with slaves. You'll need cargo-bay life support to keep

the slaves alive. And remember always to check the BBS, to see if you can sell your goods dearer.

You can easily pick up the odd military job, to supplement your income. If the military want you to go to Sohoa [0,-4] rather than Vequess, that is also profitable.



Facece [0,-4]

Good buys: Live animals and animal skins for Vequess or Sohoa

Exports: Medicines, (minor) grain, fruit&veg, animal meat, minerals, military fuel

Imports: Slaves, luxuries, industrial parts, (minor) liquor, fertiliser, heavy plastics, metal alloys, computers, robots

Shortages: Slaves, luxuries, computers

Vequess [0,-4]

Good buys: Computers, luxuries, slaves for Facece

Exports: Computers, slaves, narcotics, heavy plastics, metal alloys, industrial parts, air processors, (minor) synthetic meat, medicines, fertiliser, hand weapons, farm machinery, robots

Imports: Grain, fruit&veg, animal meat, (minor) water, liquor, animal skins

Shortages: Grain, fruit&veg, animal skins, live animals, nerve gas

Ioququ — Soveze

Ioququ is an outdoor world, where enormous numbers of slaves work in plantations to maintain the luxurious lifestyle of the wealthy elite. This trade route involves supplying them with slaves, and taking away live animals to the nearby Soveze system, where they are often in short supply (check the BBS for each of the starports).

You will need a life-support system added to your cargo bay. It's best to do this route in a reasonably large ship, like an Imperial Courier, and to upgrade

when possible. And remember: slave-trading is legal in the Empire!



Ioququ [3,-4]

Good buys: Live animals for Soveze

Exports: Grain, fruit&veg, animal meat, narcotics, animal skins, luxury goods, chaff, (minor) water, liquid oxygen, liquor, live animals

Imports: Slaves, hand weapons, computers, robots

Soveze [3,4]

Good buys: Slaves for Ioququ

Exports: Slaves, synthetic meat, heavy plastics, metal allows, hand weapons, industrial parts, computers, chaff, (minor) narcotics, medicines, fertiliser, air processors, farm machinery, robots

Imports: Fruit&veg, animal meat, (minor) water, grain, liquor

Shortages: Live animals, often, in at least one of the starports

4.5.2 Combat trade routes

I've attempted to bring combateers around to the idea of some trading to allow them to afford beefier ships. The trouble with combateers is that they generally have the business sense of a concussed stoat. Before I was asked to command the Academy, I ran a part-time combat course. To try and imbue my students with some business wit so that they could equip themselves decently, I sent them to the Alioth School of Economics. A good friend of mine was a lecturer there. We were talking about teaching after an article in the *Universal Scientist* had discussed the attempts to teach language to primates. I remarked that the difference between humans and animals was that humans could communicate effectively about abstract subjects. He lamented sadly that the difference between animals and the students I sent to him was that my students weren't afraid of the vacuum cleaner! It turns out that my student groups behaved consistently like a family who had just eaten a large turkey dinner.

The sad fact of the matter is of course that bounty hunting pays very badly. You need good equipment to do it, and good equipment costs money. Most would-be bounty hunters (and pirates) try and start out with a Saker and 1MW Pulse Laser and end adding to the statistic that only 20 percent of combateers make it past a 'Poor' combat rating — as Rafe Zetter would say, they ended up as dog-food in orbit around Isveve.

In this section, I won't concentrate on the easy trade routes — these have been covered previously. Instead, I'll discuss the trade routes that can keep you going once you do have a reasonable ship. These will pay for good upgrades and repairs of course!



Figure 46: Docking at La Soeur du Dan Ham, Riedquat [-3,-6]



The Riedquat Triangle My favourite trading area for combaters is the one illustrated here. I call it the Riedquat Triangle, since the combat aspect revolves around the anarchy of Riedquat. My usual trip is to start at Riedquat and load up with Narcotics.

The next step is to go to Diso. Narcotics are quite highly prized there... but illegal. The system is heavily pirate-infested too, so

you'll get met by the local welcoming committee of pirates as you try and deliver your cargo. Expect to get fined since Narcotics are illegal — but the police are quite corrupt, and a bribe of 250 credits usually sees them on their way. You should be able to make a good profit. Go to the Bulletin Board, not the stock market. There are usually a few independent traders (“Interesting goods or otherwise”).

It's often worth doing some research at the bulletin boards — sometimes, the advertisements aren't always what they seem, and might be fronts for undercover cops. You can root these guys out quite easily though, since the real traders are there trip after trip, but the cops come and go quite quickly because they get found out!

At Diso, load up with something boring. You'll have to, since Diso is trying to become more civilised, and “interesting” goods are seldom available at a good price, so you might be stuck with loading up with Fruit and Veg.

Next move on to Leesti. Forget illegal goods here — the cops can't be corrupted, and you'll get fined a lot. However, only Nerve Gas is illegal. Narcotics are easily available, though, so you can trade these back to Diso if you wish. Usually, I return to Riedquat with a load of Robots or Computers. The pirates will flock, and you'll boost your Elite rating as you go to the station to increase your credit account.

Now a little about the systems you'll be trading in:



Figure 47: The now-rare Python ship and Coriolis space station, at Diso [-3,-6]

Riedquat At Riedquat, nothing at all is illegal. I've even accidentally fired my weapons in the vicinity of a space station, and I didn't even get the customary fine. This does mean you have to be wary at all times and quite accomplished in combat to succeed in this system. Traders there are often a fairly hard-nosed type, and are usually well armed. Haggling over the price is a past time the locals take great pleasure in — don't let them rip you off!

It's a good idea to get out of your ship after you dock at La Soeur du Dan Ham (who *is* Dan Ham anyway?) and visit either the Fighting Cock or World's End pubs based at the station. The local brews are very good. Just remember the 8 hour bottle-to-throttle rule before you depart off into the void once more! Generally, the locals are friendly despite the anarchistic nature of the system. It's certainly a much nicer place to hang out than Veliaze where only the vicious survived (until the Veliaze crisis), and my home world of Nirvana in the Phekda system where several mob groups were and (still are) locked in permanent fighting. I think the locals are just too laid back to try and enforce any type of law and order in Reidquat system space — I've never met anyone from this system who bears any malice. The pirates all come from surrounding systems.

Diso Diso is a system where you'll see a fair bit of combat, but unless you're going there to trade, it's not worth bothering with. The local population is puritanical to say the least. Anything fun gets an almost instant ban, and I really don't understand it. Notwithstanding, the locals seem content with the state of affairs and are unwilling to change this. I seldom bother leaving the ship when I go to Diso.

Leesti For some reason, the authorities at Leesti seem to have a permanent sense of humour failure. If you can get past that, and the fact that the space port authorities own *everything* on the station, it's actually not such a bad place to get a beer or two. The port authority bar is actually quite good, and they import serious quantities of Riedquatian beers, in addition to the local fine wines. I also made quite a few friends in this system during my travels.

Leesti was founded by a group of people in the early days of interstellar travel. These people were known as the French. The Leesti have apparently inherited many attributes of the original settlers — authorities who like to make rules, and a population who generally likes to resist rules. Don't be surprised if

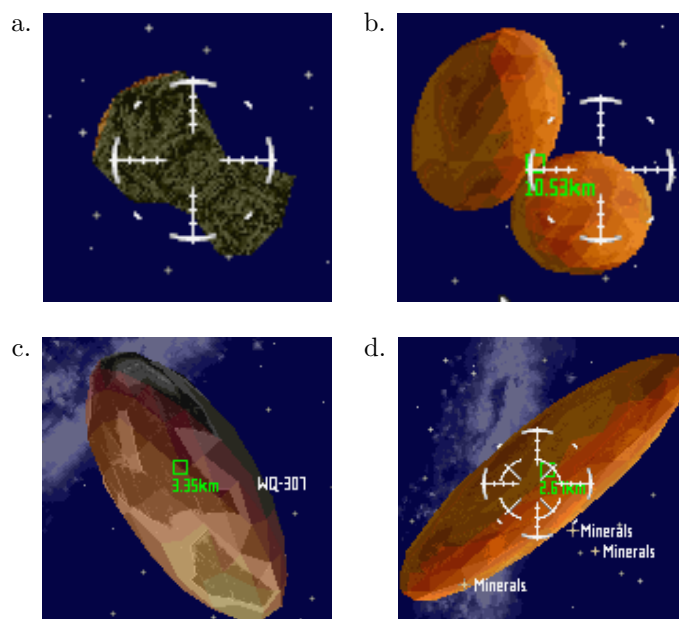


Figure 48: Asteroids: (a) common, (b) egg-shaped, (c) figure-of-eight, (d) cigar

you arrive at Leesti to only be unable to get clearance to dock because no one is answering — the controllers have probably gone on strike. You’ll be stranded for a couple of weeks unless you have fuel to go somewhere else!

The Leesti population also has a reputation for being rude and un-welcoming to foreigners, but if you get to know them, they are actually alright. You can earn extra brownie points by learning their quirky language, but at a pinch, the good old translator works fine. Leesti does for wine what Riedquat does for beer.

4.6 Mining

4.6.1 Asteroid mining

Another of the old, traditional, ways of life. Asteroid miners, as the name suggests, search systems for asteroids, and then shoot at them with specialist lasers to fragment them into collectable chunks.

You will need a fairly large ship. The bigger it is, the more you can fit in it, but the harder it will be to scoop anything up — try to find a good balance. A transporter is a good compromise. Fit it with a 30MW Mining Laser. It is wise advise to keep a Beam Laser in front for combat, and put your mining laser in the rear or in a turret. (This advice is difficult to follow in a smaller ship with only one gun mounting — but smaller ships generally don’t have enough cargo space for mining to be profitable.)

Advantages The most obvious advantage is ‘free’ cargo, which can be sold on the stock market. Sometimes you may find items that are quite valuable.



Figure 49: A rubbish asteroid to mine...

You can make large amounts of money.

Disadvantages It's still not very exciting. And you usually only get minerals, if anything. Also, mining lasers have a slow fire rate — not good if you expect trouble and only have one mounting. And if you can't find any asteroids, then you can't do any mining!

Equipment *Essential:* Mining laser, and either a fuel scoop and cargo scoop conversion, or a tractor-beam cargo scoop. *Suggested:* Beam laser for combat, and a large-enough cargo bay to hold the minerals.

How it works Asteroids come and go in various systems, so you'll have to find the asteroid first. I got a friendly astronomer to calculate the times when known asteroids would be passing through various systems this month:

Indaol [-1,6]	13th February 3250
Titican [-2,5]	14th February 3250
Tiinze [-1,3]	16th February 3250
Daiogre [-1,3]	17th February 3250
Andwafa [-2,3]	24th February 3250
Andolze [-2,2]	28th February 3250

Make a jump to some system. Once you drop out of hyper space, make sure labels are switched on, and look around for large orange 'stars' without a name tag — these are the asteroids. Chose one and fly toward it. Come to a complete stop about 8km away from it. Give it a quick zap with your laser and see what comes out. If you don't want anything its giving you (e.g. rubbish or minerals) then hold down fire and put the Stardreamer up to about 3. The asteroid will eventually explode. Choose another asteroid and try again. (Its best to destroy each worthless asteroid, otherwise you tend to go back to the same ones over and over).

If you come across an asteroid with something decent in it, shoot it about 10 times in real-time, then scoop up your produce. Go back and shoot some more, and so on — that way you don't loose any fragments, and can maximise

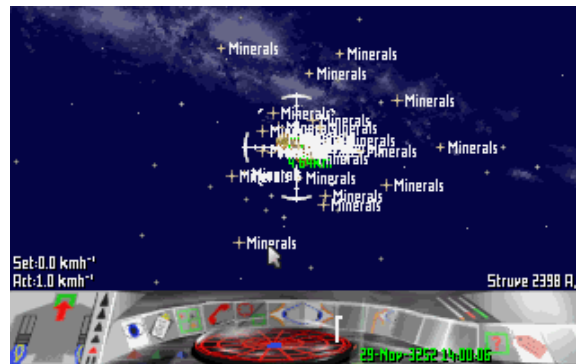


Figure 50: Asteroid-mining in Struve 2398 [-1,1], November 3252

your profits. Fly to a port with your cargo holds full of your bounty, and sell it off.

It can be quicker simply to jump to another system to sell the cargo and jump back, rather than trying to fly the 9AUs out from the station to find the belt again.

If you get bored with mining, that Mining laser will destroy just about anything the pirates can throw at you in about 5 hits...

Some bigger, fast-spinning, spherical asteroids can be landed on. When you're close enough to one of these, your frame-of-reference will indicate you're in orbit to the asteroidal body, and you'll receive an altitude reading when you're close enough. Lower your landing gear, take your ship *very* close to the surface, and try to match the speed of the asteroid. When you can almost touch down (altitude 100m) set speed to zero and try to keep the horizon in your sights. You might make it... If you do, take an external view, and watch your landed ship floating a couple of metres above the surface. Then deploy an MB4 mining machine, use an escape pod, and take a picture to show off to your friends!

4.6.2 Planetary mining

With the invention of the new, portable, mining machines, a new type of mining has become popular. Mechanical mining is done by dropping the machine on a planet's surface and the machine drilling for materials. The machine can be left in place and visited later to pick up the spoils.

Advantages As for asteroid mining, except planets are a lot easier to find than drifting asteroids! There is also an increased likelihood of getting something worthwhile.

Disadvantages As for asteroid mining. Also the machinery is heavy — it will eat 30t of your valuable cargo space. And virtually all of the systems in the core of human space are mined out, and mining an inhabited planet is illegal: so you may have to travel quite a distance to find a viable claim. Even if you do find something to mine, you might not be covering the cost of the journey to and from your claim.

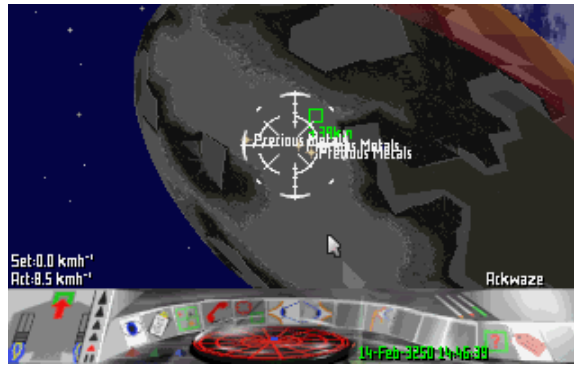


Figure 51: Asteroid mining in Ackwaze [-1,6], 14th February 3250

Equipment *Essential:* MB4 mining machine, in a ship big enough to carry it.

How it works Once you've landed on the planet's surface, press 'D' to deploy the MB4. You'll see the machine appear in front of your craft, and then it will display a message analysing the surface. First it will check that conditions are suitable for mining (ie. not too hot or cold). Then it will analyse the surface and tell you if it has found anything. If it does find something, it will then start mining.

Believe it or not, the MB4 doesn't analyse the same spot on the surface each time it deploys (even though it doesn't seem to move). Therefore it may miss a seam or not find anything at all. For best results, and to make sure that you get the most valuable booty, try deploying the MB4, looking at the analysis and then re-loading it if there's nothing that interests you. Repeat the process until you either find something useful, get bored, or decide there's nothing there.

Once you've placed the MB4 to your satisfaction, you may now either take off and return to base, or deploy another one. If you do deploy another one, you should make sure that it is at least 1km away from any of your other machines in case you accidentally recall the deployed one and lose the seam.

Then go away, and carry out your other business, while you wait for your MB4 to mine enough minerals.

Hyperspace to the system where you left the machines, and look at the mining machine information screen (F2, F12). Click on the target button for the machine you want to go to, and it will set your autopilot to that destination. You may, however, prefer to target the planet it is on, since this can be a lot safer...

Land within half a kilometre of the MB4, and press 'D'. If you're close enough, you'll get a message telling you that the mined material has been loaded. You only need to press once. A second press of 'D' will load the machine itself, which you might not want to do.

Now set off for a system where you can sell the material, after you've collected from all of your machines.

4.7 Mission glitches

Some of the unusual jobs on offer have unusual glitches. They are described in this section. Stop reading! What follows will spoil some of the surprises awaiting you in the game.

Wiccan Ware *I want to get the ‘Wiccan Ware’ (the race) but the spaceport’s busy.* Try this (and it goes for every ‘spaceport busy’ situation): Buy a missile, combat-target the weakest ship that occupies the landing pad, and blast off into orbit (about 3km away). Then face your red target, and fire the missile. Engage stardreamer to make sure your missile hit (since missiles hit their targets most accurately in stardreamer mode). Wait for a few minutes, and then head back for the spaceport. Your target will be either destroyed, or he will have fled. Perhaps you’ll have to wait until midnight to have the traffic controls ‘reset’.

Dentara Rast / Dr Innitu are dead *I killed Dentara Rast or Dr. Innitu but I’m not given credit.* There are two possibilities for why this is happening. The first is the usual explanation for botched hits: In order to get credit for *any* assassination, you must not destroy the ship before it takes off. This is because the person only boards the ship just before takeoff — blowing the ship up on the launch pad will only scare your target, not kill him.

Sometimes, when you let the target ship hyperspace and then chase him and kill him in deep space, the game doesn’t register this as a kill. Therefore you should reload, take him out as soon as he launches, and then escape as quickly as possible.

‘5 Furies’ Statue time limit *I don’t have enough time to deliver the ‘5 Furies Statue’.* There’s an error in the mission-text regarding pickup time. I don’t know the exact times, but when you take the mission, you might want to fly to Arcturus immediately (with passenger cabin fitted) and dock there. You will be give the Statue, even if you’ve arrived before the set time. If you’re there earlier, you are able to complete it easily.

Hitch-hiker *The person from the ‘Pickup hitch-hiker mission’ doesn’t show up/* Yes she does, she just doesn’t say she does... Land at the Actors a few days before pickup, wait a few days until the pickup must occur, and watch your cabin space. It should be occupied with 1 person after the pickup date. Blast off immediately and search the map for a nice, nearby Federal sectors. You should be able to find 2 of them within 20 Light Years. If Ms Thikka is not on board on the specific date, wait a few days longer, and press F2 again to see.

Pick up hitch-hiker: it says mission not completed, but it is! This is a frequent bug.

The hitch-hikers blow up my ship when I pick them up again. And does that trouble you? Okay, seriously: I suspect you didn’t take off quickly enough. If the hitchhikers say “Let’s go — *now*” then I suggest you listen to them. Hyperspace as quickly as possible. You’re probably best off taking off as soon as they board — so ensure that you have enough fuel to make it to Edethex before actually arriving.

Rockforth Academy *I missile-bomb ‘Rockforth Academy’, but when I return it doesn’t register that the mission is completed.* The missiles almost never really do any damage when you fire them from close range in real-time. A work around: fire missiles from about 500km away, and engage stardreamer on number 9. Missiles *always* hit their targets on high time acceleration. Also, you might not be using a powerful enough missile.

Journalist’s Welfare Fund *What is the ‘Journalists Welfare Fund’?* This is connected to the Thargoid missions, and is there to give you a hint about the location of the ‘hidden’ system where Mic Turner got iced. The message often stays on the boards for some time after you finish the missions. Despite what it says about them sending you more information when they get it you’ll never hear from them again (other than the message showing up every so often, after it is no longer useful).

Argent’s Quest *I land at Alioth after completing the first Argent’s Quest mission, but nothing happens.* There appears to be a time limit for completing this mission, although there is no mention of it in the briefing. You are not accused of being late when you arrive back at Alioth, so it looks like you’re being ignored. One possible factor that triggers this is if you spent a long time waiting for a classified mission to get the nuke after you accepted the Quest. If you saved the game before the Requiem, go back to that save and try again. If you didn’t do this, then your only way to continue with the Thargoid missions is to start a new game.

The best way to avoid this problem is to get the nuke a few months before going to the Requiem. As long as you don’t go back to the system where you got the classified mission in the intervening period, you should keep the nuke.

I’m on the Thargoid mission, and I get harassed by far too many ships — even after the missions they keep bothering me. That’s because you didn’t blow up the satellite in the first mission. In that first mission, you are *not* given the tools to do this, and you must take on a “classified mission” from the military to get them yourself. You won’t be completing this classified mission, but instead snatching the Transmission Jammer and Nuclear Missile for your own purpose: the Thargoid systems. Seek out and destroy the satellite, or you’re going to be a busy commander. Don’t worry about not being able to complete the military mission you took to get the Jammer and Missile — although your rank points go down a bit, they will be back up in no time.

Also, if you *like* living on the edge, and plan to keep on playing even with INRA on your tail, you might make a forced hyperspace misjump at times. This will confuse lots of INRA ships, and the game may run some-what faster.

When leaving the station at Polaris, I’m no longer in Polaris! That’s correct. It’s a little unexpected for Commanders who didn’t bring *enough fuel with them!*

But the Polaris system is (was?) just a base for the Thargoids, and their home planet is located far more to the north. When you dock at the shuttle (which turns out to be a transporter) it hyperspaces a very long way. And you have to be able to return this distance.

When leaving the station at Polaris, a lot of Thargoids fly around me, but nothing happens. Not yet anyway. Just be patient...they’re as curious about you as you are about them. Just wait a bit (perhaps you can use stardreamer 7

or 8) until you receive a message from the Thargoids to dock with their really *big* station. If you dock with the big station without having received this message, chances are that you won't receive any Thargoid communications there.

Nothing happens when I click Yes/No in a Thargoid ship. This might be caused by the use of accelerated time during Thargoid communications inside a space station. Use time control only when the Thargoids say so. There's no other solution — you'll have to reload if you used it.

Thargoid shuttle is always busy. Don't know what causes this. You'll have a decent chance if you restore your game, and hyperspace in again. Otherwise, you can try floating just before the Thargoid shuttle's entrance, and wait until the occupying starship crashes into your Quest ship. This can take a lot of game saving and restoring to figure out just when the ship leaves the Thargoid shuttle.

When I'm done, I land at Alioth, and they take my Thargoid away! Happens sometimes. It might have something to do with the fact that you dock/land at planets before you go to Alioth. I recommend you restoring your game after you left the Thargoid station in your new Thargoid ship, and hyper to Alioth again.

Chapter 5

About the galaxy

5.1 The factions

There are three main factions in the galaxy: The Federation, centred around Sol [0,0]; The Empire, centred around Achenar [1,-4], and the Alliance, around Alioth [0,4]. All other inhabited systems are classed as ‘Independents.’

5.1.1 The Federation

The Federation was formed after a battle between forces from Earth and Tau Ceti after the later were making several alien species extinct. Initial members were Earth [0,0], Tau Ceti [0,0], Delta Pavonis [0,-2], Altair [-2,1] and Beta Hydri [0,-2]. Federation systems mainly operate among democratic lines, and ‘socially unacceptable’ goods are banned — the precise types varying from system to system.

Political The Federation is tightly-knit, with Sol the Federal capital, and all other systems subservient to the Federal government. Federation systems have a little freedom in making their own laws but, by and large, each Federation system reports directly to Sol which controls the raising of taxes, broad economic policy, immigration policy, and the general justice system. Federation citizens vote for a representative at the system level, and this representative serves in the Federation Senate. Federation citizens also vote for a President, who is the overall leader of the organisation.

Military The Federal Military is the force that protects the Federation, and helps to enforce peace in the more unstable systems bordering the Federation. It is based at Eta Cassiopeia [0,2]. The current improvements in relations with the Empire has meant that there is less scope for actual combat with the Imperial Navy.

5.1.2 The Empire

The Empire was formed after the defeat of the Federation in the Battle of Achenar in the 2320s when the Federation had sent a war fleet in response to the

Federation democracies:	61 Cygni [-1,1], Ackandso [2,-2], Altair [-2,1], Anlave [0,3], Arcturus [-2,0], Aymiy [1,4], Bebece [-8,-11], Bedaho [-4,-2], Beta Hydri [0,-2], Canarbe [-6,-9], Canolol [3,-10], Cezephi [-2,-10], Delta Pavonis [-1,-2], Edbela [5,-7], Edethex [3,-3], Edwaso [-3,-13], Epsilon Indi [-1,-1], Eta Cassiopeia [0,2], Ethsoess [3,7], Exphiay [7,-6], Faessla [-11,-6], Fomalhaut [-1,0], Gretiwa [2,11], Hocanla [2,-12], Liabece [3,-13], Phiaack [2,-12], Ququve [1,4], Ross 986 [2,1], Sobeeth [9,-9], Sol [0,0], Tau Ceti [0,0], Tiliala [-4,-1], Urinan [11,1], Vega [-3,2], Vetifa [6,2], Waayol [4,-5], Waedphi [-8,-1], Wafaphi [-6,-3], Wolf 630 [-2,-1], Zeessze [0,3]
Federation colonies:	Alpha Centauri [0,0], Barnards Star [-1,0], Exbeur [-3,4], Olhoack [-7,0], Quiness [-8,6], Ross 128 [0,0], Ross 154 [-1,0], Tiolce [-8,2]

Table 7: Federation systems

alleged elimination of a sentient race by private colonists on Achenar 6d (now known as Capitol). The Empire spread from Achenar to surrounding worlds during the 2330s, and the wars between the Federation and Empire continued until the 2380s when a peace treaty was signed between the two powers.

Imperial systems are almost all strictly capitalist in nature, and it is legal to buy just about everything — the line normally being drawn at Nerve Gas. The pace of Imperial expansion has not been as rapid in recent years as it once was, although the Empire seems to be maintaining a high military presence in the Far Systems.

Political The Empire controls member systems even more stringently than the Federation. The government is based on the classical imperial model that dates back to ancient China, but borrows many of the methods used by the British Empire of the nineteenth century. Member systems are governed by direct rule from the Imperial Headquarters on Capitol, the governors of each system selected by the Imperial Palace. Citizens of the Empire have very little democratic voice, and dissenters tend to find themselves held at Hengist Duval's pleasure.

Military The Imperial Navy is the fighting force of the Empire, and one of the most feared forces in the galaxy. It is based at Facece [0,-4]. The Navy has a high standard of professionalism, and successful commanders enjoy high status in Imperial society. The force is famed for its unique rank structure, which reflects the feudal nature of the Empire with ranks from Serf to Prince. The force is split into a number of sections called Protectorates, which are responsible for various areas of the galaxy.

5.1.3 The Alliance

The Alliance was formed in Alioth in 3230 after an uprising there against the Federation and Imperial forces. The Federation and Empire could not decide who should own this high-population system, and bitter fighting between the

Imperial systems:	Achenar [1,-4], Anlaol [1,-6], Aymifa [2,-5], Candaess [2,-4], Cemiess [-2,-2], Exioce [-1,-3], Facece [0,-4], Ioququ [3,-4], Olcanze [1,-3], Quince [-1,-5], Tiacan [3,-4]
Imperial colonies:	Ackdati [0,-5], Ackzece [1,-5], Aexeth [0,-5], Anacketh [0,-5], Anayeth [-1,-4], Andcefa [2,-3], Ayfati [1,-5], Behoqu [2,-4], Canfati [2,-9], Canlada [-7,0], Cegreeth [-1,-3], Cephioi [1,-5], Enayex [6,-2], Essaa [1,-5], Exiool [2,-4], Fawaol [2,-3], Hoarla [-1,-5], Inioen [-6,3], Laedla [-4,1], Liabeze [2,-4], Miargre [-8,-3], Miolgre [2,-5], Miphifa [0,-5], Sohoa [0,-4], Soveze [3,-4], Urandol [1,-5], Urtize [3,-4], Vequess [0,-4], Zelagre [1,-5]

Table 8: Imperial systems

two galactic powers was beginning to get irksome to the population — who didn't really want to be ruled by either of them. When seven billion people got annoyed at being constantly in the crossfire over two alternatives they didn't actually want, things tend to happen. The population literally went to arms, and in a massed insurrection, repelled both sets of invaders. Quickly, the new Government of Alioth realised it needed help if it was to remain free of both the Federation and Empire for much longer. Nearby systems had been watching the melee with great interest, and when the new Alioth leadership proposed an Alliance of Independent Systems, fourteen nearby systems immediately joined recognising that it would ensure their future remained free of both the Empire and Federation. It didn't take long for other systems to realise that this was a good thing, and between 3230 and 3250, a further seven systems joined the Alliance. The most recent member is Phekda, which joined in February 3296. The Alliance is now the third major organisation of star systems in the human populated galaxy.

Political The Alliance is based on a much looser system of government than the Federation and the Empire. Alliance members retain their own independent government. The government of each system is responsible for devising its own taxation, economic and legal policies. A portion of each system's income goes to fund the Alliance central organisation itself. This organisation is a democratically elected body with representatives from each system, and it ensures that each member of the Alliance has adequate defence coverage, the freedom of trade, and enacts legislation ensuring that basic human rights are observed amongst Alliance members. Alliance Central is based at Fortress Culloden, Argent's Claim, Alioth [0,4].

Conditions for a system to be or remain as an Alliance member are broadly as follows:

- The system must have a democratically elected civilian government.
- The 3233 Alliance Treaty on Human Rights must be strictly followed by the government.
- Free trade with other Alliance members must be guaranteed.

Alliance democracies:	Ackwaze [-1,6], Alioth [0,4], Anayol [-2,5], Arexex [-1,6], Ayanex [-2,5], Ayessqu [-1,5], Ethgreeth [-3,5], Ethwain [-3,5], Faceze [-1,5], Gateway [-1,4], Hoenin [-1,5], Holiacan [-3,5], Hounze [-3,5], Indaol [-1,6], Lawacan [-1,6], Miandin [-1,6], Olgrea [-3,5], Quenve [-1,6], Sofagre [-2,5], Soholia [-1,5], Tisoze [-2,5], Titican [-2,5], Vequex [-1,5], Zeiocan [-1,5]
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Table 9: Alliance systems

- Alliance members must come to the aid of another member in times of distress (this is organised by Alliance Central)
- Citizens from any other Alliance member system must be granted full rights of abode and citizenship in all other Alliance members.

There are of course many other minutiae in Alliance common law, and Alliance Central tries to ensure that the Alliance remains an efficient model of government. Due to the unique way in which the Alliance conducts its affairs, many now feel that worlds of the AIS have the highest standard of living regardless of the general economic outlook of the system in question.

Astronomical The Alliance lies to the north of inhabited space, with the Federation to the south, and the Empire beyond. Alliance systems lie in or close to an area known as the Ursa Majoris cluster, the principal stars of which are Alioth, Mizar, Alcor, Phekda (or Phecda), Merak and Dubhe. Most of the systems are generally type M red stars, some steady burning and some flare stars. The Alliance has its share of red giants and multiple star systems. There are no white dwarves amongst the members.

Total number of stellar objects: 37
 Total number of systems: 25
 Bright giant stars: 1 (Alioth)
 Red giant stars: 2 (Anayol A, Gateway)
 Type K orange stars: 1 (Veliaze)
 Type B blue stars: 1 (Phekda)
 Type M Flare stars: 7
 Type M red stars: 25

Only a few systems are suitable for planets containing outdoor life. Alioth, Gateway and Phekda are the only members where indigenous life can be found — in all other systems with outdoor worlds, terraformation was responsible. It is quite easy to see why the the Alliance has such a lot of manufacturing industry — most of the stars are type M red stars without suitable planets for terraformation. Lifeless systems mean that there is no environment to damage.

The Alliance also has its fair share of flare stars, from the benign to the downright vicious, including Arexex, Ethwain, Olgrea CDE, Vequex and Hoenin C. The most obnoxious of these is Hoenin C.

There are also several brown dwarf sub-stellar objects in Alliance space. These objects are considered failed stars — planets that are not quite large

enough to start burning steadily, but much more massive than most gas giants. The brown dwarves typically emit significantly more energy than they receive, and there is a nuclear reaction in progress at their cores.

Military The Alliance Joint Navy is now the military branch of the Alliance.

It was mid March, during the year 3261 that the Alliance had a rude awakening. Since its inception, the Alliance had no organised military — AIS leaders believed that each system's militia plus the AIS Defence Treaty would suffice. It sounded good on paper; an attack on one AIS system would be considered an attack on all, and all AIS systems would come to the aid of the system being attacked. Each system's militia was made up of small to medium sized fighters and transports, with nothing bigger than an Imperial Courier in any force, meaning they could very quickly come to another system's aid. The AIS leadership in Alioth believed this would fend off any attack should the Federation decide to annexe an Alliance system. With the Federation to the south, the Imperial systems were very remote from the AIS, and not considered a threat. The Federation wasn't considered a big threat either since they were too busy sparring with the Empire to pay a great deal of attention to the Alliance.



As 3260 drew to a close, the Federation and Empire were once again rattling their respective sabres, with the AIS looking on, largely disinterested. The two powers had been involved in a cold war that waxed and waned with such frequency that it was beginning to get boring, and was anyway just the normal run of events. However, this time, it was beginning to look ugly with border skirmishes along systems between the two powers. Usually the Federation and Empire would just posture, and shots would never be fired, but now ships were getting destroyed. This state of affairs continued for another three months. The AIS wasn't really concerned at this point nevertheless since the drama was happening many light years away, and the economy had never done better. Alioth was now rivalling the Sol system in terms of wealth, with the New Rossyth shipyard producing some of the best designs yet seen.

However, this feeling of security was suddenly obliterated when on the 26th March, 3261, a large Imperial invasion fleet suddenly hyperspaced into the Veliaze system.

The Veliaze Crisis. Veliaze was, at the time, a system in a state of anarchy. No one power ruled the system, pirates abounded, and so did the bounty hunters looking for a prize. It wasn't the sort of system the Empire normally gets involved with. However, the large bounty hunter network that existed in Veliaze system space quickly noticed the invasion force. Veliaze may have been a seething pit, but it was their seething pit (not to mention source of income and Elite ratings). The hunters made a heroic attempt at repelling the force, but the three Imperial battlecruisers, behemoths with a mass in excess of half a million tonnes, with their supporting fighter escort quickly destroyed all resistance. The cruisers landed their invasion force and took control of the entire system. The whole event lasted less than a standard week - basically the time from entering the hyperspace port to the arrival at each inhabited station and

planet in the system.

Veliaze is very close to Gateway, a major system of the AIS. The sudden takeover of Veliaze by the Empire sent waves of panic throughout the entire AIS when the telemetry was analysed from one of the bounty hunters who escaped. The data showed that none of the ships in any system militia could even scratch the invasion force, now stationed only a few light years away. Although the Imperial force was not big enough to take on the entire AIS, now that they had Veliaze, they could easily and quickly take single AIS member systems with impunity. Their current force could easily take Gateway, a key trade system of the Alliance. With Veliaze, the Empire now had a muster point from which to stage a full scale invasion of the Alliance. Alliance leaders agreed that this is what they were probably doing, despite strenuous assurances from the Empire that this was not so. Elisha Young, the President of the Gateway system declared an emergency and put the entire system militia on high alert. The Alliance also asked for Federal assistance should the Empire decide to attack. However, the Federation leadership was not particularly reassuring to the AIS since the Federation believed that the invasion of Veliaze was not to stage an invasion of the AIS, but to provide a two-pronged invasion of Federation space. The Federation, shocked by the audacity of an outright invasion of an independent system, were now also in a state of panic. They didn't know whether to attack Veliaze and remove the Empire from this strategic position and risk all-out war, or to try and bring the Empire to the negotiating table and try to find a diplomatic solution. Time was rapidly running out, and the largely incompetent Federation leadership could do nothing but flail around like a wet fish on a hook.

Emergency Procedures. The Alliance realised that they were the only people who could save themselves. The Federation were clearly going to be no help in the immediate future, and although Alliance leaders largely expected the Federation to join the fight if an Imperial onslaught began, by this time it would be too late and much of what the Alliance had worked for would be destroyed. To this end, all civilian production ceased at New Rossyth shipyards, and the emergency refitting of long range cruisers as capital battleships began. Many cruisers were owned by the governments of Alliance members, and they were rapidly ferried to New Rossyth. Within ten days of the takeover of Veliaze, the cruisers that were already in the Alioth system were outfitted as formidable battleships, packing a dozen turreted large plasma accelerators each plus fifteen bridged Class 4 hyperdrive systems. Virtually all the equipment available at the various shipyards of the Alliance ended up on these vast leviathans, and fifteen days after the start of the crisis, three cruisers were deployed in the Gateway system, thought to be most at risk. Each ship was assigned a flight of 150 fighters from the Gateway militia. A hastily arranged Alliance military command structure was put in place, lead by Gateway's militia leader, General Rafe Wilson. In all, twenty five battlecruisers were outfitted at a cost to the Alliance of nineteen billion credits each, and the almost cessation of all trade throughout the Alioth and Gateway systems for a period of three weeks.

The crisis ends. The Alliance now realised that it had options. With no more Imperial craft emerging in Veliaze (being watched intently by both the AIS and Federation) the Alliance found that it could decide to simply defend any attack, liberate Veliaze immediately, or liberate Veliaze if it appeared that the Empire was attempting a buildup. Whilst deciding their options, as quickly

as the crisis began, it ended. With no warning, the Imperial force departed Veliaze. Anxiously scanning for hyperspace entry clouds, the Alliance found that the fleet must have either departed for home, or was mounting an attack on the Federation. It was soon discovered that the fleet had returned home. The departure was on the 20th April, 3261. The fleet had stayed for less than a month, but had changed the Alliance forever. All that remained at Veliaze was a small caretaker government placed there by the Empire, which was ultimately to join the Alliance in May 3262, much to Hengist Duval's annoyance. It was discovered in 3289 after secret Imperial documents were leaked that the attack had been precipitated by a man named Pierre Chandelle, the notorious mobster 'leader' of the Veliaze system. He had personally swindled Duval out of several million credits. Not surprisingly, Chandelle was never seen again after the sudden attack. It's not known why the Empire didn't just send an assassin after Chandelle, but it is widely assumed that the Empire wanted to not only settle the score with him but to also induce panic in the Federation (despite the extreme risk).

And frighten the Federation they did. The political fallout from the affair destroyed the Federal leadership at the time, who were forced out by a vote of no confidence demanded by the Federal Senators of systems that bordered the Veliaze system. During this uncertain time, the Empire made a quick grab for Tililia, a disputed system, notorious for the VLA scandal only ten years earlier. The Federation, otherwise distracted with their own political problems, offered no resistance.

Lessons learned. The Alliance now realized that it was high time that they had an organised military, especially after the cost of lost trade plus equipment that went to turn twenty five long-range cruisers into fully fledged capitol ships. On Friday 20th May, 3261, the Alliance Joint Naval Forces, or AJN was formed under the command of Rafe Wilson, the first Admiral of the AJN. The AJN was to command the capitol fleet and its immediate fighter forces. The system militias were to remain intact, but receiving orders from Wilson's fleet should the need for defence of the Alliance ever arise. In honour of the legendary ship designer, Mic Turner, the AJN's main combat training academy was named the Turner Space Combat Academy. Initially it was to be based at Argent Station in Titican, but it was found the facilities at Dublin Citadel in Gateway would be more useful to the Academy. The Academy officially opened on 18th December 3261, its mission being to ensure that AJN combat pilots were the best trained in the Galaxy and that the police forces of Alliance systems would be the most effective in the Galaxy. There were some consequences of the Alliance acquiring a military force. Although the Alliance never has nor will have any ambitions to initiate aggression, the presence of the force meant that the Federation and Empire finally officially recognised the Alliance as a legitimate organization.

5.1.4 Independents

There are some 533 independent inhabited systems in the galaxy. Half of them are anarchies; a third of them are run by corporations; most of the rest are totalitarian regimes, and just 16 are democracies. Some noteworthy systems are listed in Table 10.

Democracies:	Andlaeth [-1,-10], Anquphi [-3,-10], Aydaso [7,-3], Ayethi [-3,-1], Ayolex [-6,9], Ayolfa [5,1], Beandce [0,-9], Diso [-3,-6], Edhoeth [-4,-3], Essfafa [7,3], Lainla [-6,3], Laiobe [4,5], Lialiaed [6,2], Liaququ [2,-2], Olexfa [8,-11], Tiethla [2,-11]
High tech:	Ayugre [-6,-6], Arinack [-5,-1], Epsilon Eridani [1,0], Andlaeth [-1,-10], Ethceda [12,6], Edhoeth [-4,-3], Zeaex [3,-2], Ethenbe [-8,-6]
Permit required:	Ross 128 [0,0], YZ Canis Minoris [2,0], van Maanens Star [0,1]
Interdicted:	Arayess [4,-7], Ayace [6,-15], Befaqu [-2,8], Ethenbe [-8,-6], Liafati [7,8]
Disputed systems:	Edhoeth [-4,-3], Ackcanphi [-4,-4], Andceeth [-5,2], Liaedin [4,3], Urandack [-6,2], Zeaex [3,-2]
Martial law:	Andceeth [-5,2], Urandack [-6,2], Liaedin [4,3], Ackcanphi [-4,-4], Zeaex [3,-2]
Civil war:	Aandex [3,-13], Aethphi [-2,-14], Ayarin [-8,4], Beaned [8,-2], Arwaack [3,-9], Ayurqu [5,-9], Ayurso [4,0], Exgrean [11,3], Enexio [1,11], Esslaio [8,-3], Beinlin [-2,-8], Enioar [-3,-4], Ayugre [-6,-6]
No police presence:	Aenze [3,-6], Andackio [-9,1], Andsool [4,-7], Exugre [-4,2], Hoincan [8,-10], Ioexho [-10,4], Phekda [2,5], Riedquat [-3,-6], Veliaze [-2,3], Zeayze [9,-7]
Religious states:	Andqueth [-7,4], Ioveso [0,7], Iobeti [1,-10], Aydaed [6,6], van Maanens Star [0,1]

Table 10: Noteworthy independent systems

5.2 Who's Who

Argent, Meredith Meredith Argent is the owner of the large shipbuilding corporation Argent Aerodynamics Amalgamated Inc. She is very rich, and is rumoured to have considerable influence in the running of the Alliance.

Argent Aerodynamics Amalgamated Inc (AAAI) AAAI are the biggest shipyard in the Alliance, and have created many new ships, including the Saker Mk III. They are based at New Rossyth in Alioth [0,4].

Astrogator Corporation Astrogator are in the business of luxury travel. They are the galaxy's premier carriers, and all of the famous people travel on Astrogator because of the huge prestige being able to do so due to the huge prices charged by the corporation. They are famed for their exclusive right to use gold-skin leather in their ships — purchased at considerable expense from the planetary government of Home, Bedaho [-4,-2] — which makes the interiors of their already well-appointed liners even more spectacular. They recently moved to their own corporate system, and are based at Juddport in Uroland [-6,-3]. Under the stewardship of their chairman, Maximillian Judd, they have a reputation for cast iron integrity, and therefore they are one of the few corporations whose accounting department isn't based in Miphize.

Bee-Team Corporation Also know as the Uszaan Mining and Exploration Corp, and does just that. Quite rich, and getting richer. Owns the Uszaan systems, and owns the supply of the recently discovered substance copovium to the galaxy. Dabbles in ship design.

Cooper, Andrew II Founder and CEO of the Bee-Team Corporation. Orange Supporter. Brother in 12th Protectorate of the Imperial Navy, Jake Cooper. Father Paul Cooper, Grandfather Andrew Cooper I. Very Rich, Very powerful.

Cisco Corporation The Cisco Corporation because rich initially through a patented terra-forming method, and have subsequently diversified. One of their more famous operations is the Cisco Theme Park on New California in Epsilon Eridani [1,0]. They are also involved in deep space exploration for commercially exploitable systems.

Core Industrial Corporation Core Industrial Corporation is the Federation's biggest manufacturing company, and its headquarters are in Olympus Village, Sol [0,0]. It is famous for being one of the very first of the big corporations, and as such commands high respect in the rest of industry and in the circles of power. It is often the case that high-up Federal officials find a place on the board of the Corporation after they leave office. Such a 'revolving door' policy has been severely criticised in the past, and it is claimed that many people in the corridors of power have arranged for Core to get lucrative contracts in order to obtain secure employment should they be removed from office.

One of its main interests is ship manufacture, and one of its more famous products is the Asp Explorer.

Duval, Hengist Hengist Duval has a great number of titles, the most commonly known one of which is Emperor of Man. He is the absolute ruler of the Empire, and therefore is widely seen as the most powerful man in the universe.

Duval, Harold The playboy son and heir of the Emperor, Prince Harold spends most of his time enjoying himself, and is a keen gambler. he owns the planet of O'Hanlon's claim in the system of Essaa [1,-5]

Emperor The See Duval, Hengist.

Falcon DeLacy Originally known as Falcon Manspace and based in Reorte [-3,-5], the corporation won the contract to design a police ship, and created the Viper, which was to earn the company a large amount of money. The next few years saw a remarkable series of mergers and acquisitions which enabled them to become one of the biggest corporations around. They decided to buy Paynou, Prossett and Salem in 2888 because they wanted to get into the lucrative lone man trader' market, and they acquired the Cobra Mk I from that merger. A merger with deLacy ShipWorks of Inines, who manufactured the Krait, in 3034 saw them change their name to the more familiar Falcon de Lacy. Their corporate headquarters was moved to Olympus Village on Mars in Sol [0,0].

Following the debacle of the Cobra Mk II, they sub-contracted the Cobra Mk III to Cowell & MgRath Shipyards of Lave while they replaced their entire R&D department. Falcon DeLacy bought Cowell & MgRath in 3113 and brought the Mk III back in house. In 3126, they took over the designers of the Fer-de-Lance, the Zorgon Petterson Group.

It is generally believed that had their best ship, the Fer-de-Lance, not been outlawed by all of the police forces for being too powerful, Falcon DeLacy would probably be much larger than they are. However they made a lot of money from sales of the Eagle Long Range Fighter, and income from the design rights purchased by the designers of the Mk II and Mk III of that ship. Their recent replacement for the now aging Viper, the Viper Mk II, could be a big earner.

FIFA No-one is quite sure what the initials stand for, but the widely accepted interpretation is Federation of Inter-planetary Football Associations. It is the governing body for the game of Association Football (also known in the more backward independent systems as soccer), and as such presides over one of the most popular sports in the inhabited systems. The Galactic Cup is held every four years, and the current Champions are Achenar, after they beat Earth by a disputed goal. It is claimed that the ball was punched into the net by Achenar's star striker Iago Donnamura, but when asked about the incident he cryptically remarked that it was 'the Hand of the Emperor.'

Griddley, 'Colonel' Maxwell Maxwell Griddley is best known as a big-game hunter, but has also been known to do other work. Unusually, there is no record of a Colonel Griddley in the records of the Federal Military or any other military organisation. There is a rumour that Griddley is not his real name, and it has been suggested that he was connected to a covert organisation. He retired to Honda in Alkaid [-4,10] in 3197.

Guardians of the Free Spirit The Guardians of the Free Spirit are an isolationist religious sect who believe in maximum hardship. They live underground on several planets of the system of van Maanen's Star [0,1], which was given to the sect by the Federation in 2480. They have outlawed a huge amount of goods, in the belief that they are offensive in the eyes of God. It is illegal to visit the system without a permit.

Gupta Industrial Corporation Gupta Industrial Corporation is mainly involved in the manufacture of high-tech weaponry, especially battle weapons. Gupta have several major manufacturing sites in the independent systems, and supply anyone who wants to buy their products - politics mean nothing to Gupta, money is everything. They recently decided to get involved in the space ship industry by buying Gerege Federation Space Works, producers of the Boa.

Gutamaya Corporation An Imperial Corporation, Gutamaya's main interests are in mining and ship manufacturer. They manufacture the Eagle Mk III, and the Imperial series of ships. It has been suggested that one of the reasons why corporation get so many contracts to build ships for the Imperial Navy is that Price Hector Duval, fourth in line for the Imperial Throne, is CEO of the company.

Ingram Ingram have been in the laser business for a very long time, and just about every pilot in the known universe will have used, or know someone who used, an Ingram laser. They produce both pulse and beam lasers, and have recently developed the 20 and 100MW Beam Lasers. It had looked at one time like the company were in serious danger of being victims of Lance & Ferman's success, but the banning of the Military Laser removed the main threat to their sales. It is rumoured that Ingram spent a large amount of credits 'persuading' the authorities to come to that decision.

INRA During the Thargoid Wars, the two big powers formed a joint military organisation called INRA to fight the Thargoids. The INRA pilots were the best in both navies, and it was common for INRA officers to hold equivalent rank in both navies. INRA still exist in the background, and there is a lot of speculation as to what the role of INRA is now that the Thargoids have gone. Rumours persist that the real function of INRA is to suppress the truth about the real reasons for the defeat of the Thargoids.

J-Corp J-Corp is one of the mysteries of the corporate universe. It doesn't seem to do anything on the surface, and has been investigated a considerable number of times by the police, who are convinced that there's something funny going on. Large quantities of money arrive in the J-Corp accounts as cash, and then are broken up into many different investments. Identical quantities leave the main account after a short period, again as cash, and then are paid in as cash to banks run by other corporations. This money then comes out as cash, and is flown by courier to banks which, for some reason, always seem to be in highly unstable systems.

One such courier run was undertaken by a Commander Maharg Jr, and was followed by undercover agents in the employ of the major police forces.

The courier went through a large number of systems, heading south. He was doggedly pursued by the agents all the way to Miphize, where the agents were considerably delayed by a large Tri-Alliance raiding party. By the time they landed at York Starport, they had lost track of Maharg, but they were told he was seen heading in the direction of the Bank of Miphize. They set off hot foot for the bank, only to witness a spectacular explosion as the Bank was hit by a burst of shellfire from the MLA forces who were trying to hit a CPM gunner on the roof. The agents gave up in disgust as the evidence was destroyed with the bank, and they returned to report to their employers.

No-one has managed to find out who owns the corporation, and it has been said that the key to finding that out is what the 'J' stands for. It has been suggested that the J stands for Jades, but this has never been proved. It could also stand for Janus, which may mean that J-Corp is an INRA front company. Whatever, the last journalist who tried to investigate in depth met with a quick end at the hands of the pilot of a heavily armed Boa, registered as BB-122.

Jades, Viscount / Sergeant-Major (Retired) One of the few commanders holding dual rank who is not connected with INRA, Jades initially worked for the Federation, before defecting to the Empire in search of higher wages and status. Having reached the rank of Viscount in the Empire and winning all the medals there, and accumulating enough kills to be rated as Dangerous, Jades retired in 3249 to spend the millions of credits he had acquired from various enterprises. He now lives in New Rossyth in Alioth [0,4], where he is employed in a consultancy role by AAI. His son, also called Jades, is expected to follow in his father's footsteps.

Jjagged Bbanner JB are perhaps the most famous music group in the human systems. Their Dreamware products dominate the charts, and they spend a lot of money on the fun things of life. They sponsor the Wiccan Ware race, held every ten years, in which commanders try to be the fastest to take one of JB's recordings from Old Curie in Gateway [-1,4] to Ghandi in Alioth [0,4].

Lance & Ferman L&F are perhaps best known for their popular range of missiles, and have enjoyed a major technology lead over other firms in their field for as long as most commanders can remember. Their lasers division designed the Military Laser, which was marketed under the slogan "Do your mother a favour — buy a Lance & Ferman Military Laser!" When the Police banned the military laser, it looked like L&F's profits would be severely dented, but they developed the immensely powerful (and expensive) Plasma Accelerators. The Police have not banned them because they believe that the huge costs involved are way out of reach of the majority of pirates.

Miphize Liberation Army The MLA was formed in the massive popular uprising against the Communist Party of Miphize (which itself was formed in a rebellion against the original government of Miphize), and dedicated itself to punishing the CPM for betraying the principles on which the system's government had been formed.

New Rossyth Shipyards NRS are the retail side of AAAI, and sell and maintain ships. They recently stopped offering guarantees on their ships in order to cut costs, changing their motto from “It’s A Huge Universe, But You’re Never Alone With New Rossyth Shipyards!” to “It’s A Huge Universe: Good Luck Out There!”

Organisation No-one is quite sure what The Organisation are, but they seem to be connected to organised crime in some way. Interestingly, they are also credited as the designers of the Constrictor.

Perez Corporation Marketed under the fairly catchy slogan “Perez’s the name, combat’s the game”, the Perez corporation are in the business of war. They produce everything you’ll need — hand weapons, battle weapons, fighters and mercenaries. The corporation have been implicated in several revolutions, and they armed the Rebels in the conflict at Alioth which led to the foundation of the Alliance. The corporation has it’s headquarters in Zaonce [-2,-6], which is one of the foremost independent industrial systems. It is believed that Perez are making considerable profits from supplying the various factions in the civil war in Ayqugre [-6,-6] — a rumour which Perez have made no attempt to deny

Rockforth Corporation The Rockforth Corporation are based in Ackwada [-5,-3], and run a huge number of casinos and other gambling concerns. They are run by Thompson Thompsonson, and make huge amounts of money from enterprises throughout human space. There are several rumours of the corporation being involved in criminal activity, particularly related to the Thompsonson, but these have always been denied. The corporation is very sensitive to criticism, with people making potentially damaging allegations being sued for everything they own or vanishing without trace.

Seventh (Far Systems) Protectorate The 7th Protectorate is one of the Imperial Navy’s most respected (and feared) fleets. Although command of the Emperor’s Personal Guard has theoretically the most glory, most Imperial commanders are believed to covert command of the 7th more — since they usually get a much more free hand, and the 7th gets to see more action. (The Personal Guard spends most of it’s time in Achenar with nothing to do except keeping smart). The 7th are based mainly in Laedla [-4,1], which is the Empire’s northern-most major base. During the Thargoid War, the 7th were in the forefront of the struggle against the Alien, and gained it’s reputation there. Although there is considerably less action now that the Thargoids have gone for good, the 7th regularly cruise the Northern Frontier in a peacekeeping capacity, making sure that no pirates or other assorted criminals get ideas above their station. This is used by High Command to answer those critics who say that with the Thargoids gone there is no point the 7th being there at all, and that they are in fact keeping an eye on the Alliance.

Sirius Corporation Founded in Sirius [1,0] during the 2350s, it was the Sirius Corporation who developed military fuel as a commercial product. The discovery attracted a lot of interest from the Federation, and their ships were converted to use the new fuel. This caused an improvement in the fortunes

of the Federal Military, but this advantage only lasted a few years until the Empire acquired similar technology. It later emerged that the Sirius Corporation had decided to supply both sides, and had engineered convenient shortages if it looked like one side was winning. This effectively prolonged the war, and enabled Sirius to increase its riches. Now that the wars have ended, they have diversified into the civilian market, particularly the provision of dreamware.

Smith, Mr The current CEO of the Sirius corporation is an Android (kappa / epsilon class) known only by the alias 'Mr Smith'. He no longer holds the power of his predecessors, although he is deeply involved in many inner workings of both the Federation and the Empire. He has a brother (Exp. Sigma Class (recalled)) who is not on the stable side. Current whereabouts of either are unknown.

Tri-Alliance The Tri-Alliance is shrouded in mystery, but seems to have been most active during the Thargoid Wars. As such, it seems to have been a predecessor of sorts to INRA, but was (is?) highly unofficial. It seems to be composed of vigilantes, who were mainly linked with preemptive strikes on Thargoid bases, a practice which was outlawed under the Garlane Convention. There are rumours that they also collaborated with pirates. What is known is that almost all of the pilots known to have connections to the Tri-Alliance are ranked as Elite with the Elite Federation of Pilots. It has recently been rumoured that INRA have been using Tri-Alliance pilots to conduct 'black operations'. Given the secretive nature of the main section of INRA, what these operations involve can only be guessed at.

Turner, Mic Joint owner of AAI and the designer of the Saker Mk III, Mic Turner is also a keen explorer of space, and often takes time off from his work to travel to new systems.

Valhallian Democratic Peace Party One of the most ludicrously misnamed political bodies known, the VDPP are in fact the ruling party on the planet Valhalla in Tiliála [-4,-1]. The dictatorship is led by the dictator Augustus Checkin, who is also head of the Secret Police. The unpopular government is opposed by the banned Valhallian Liberation Army.

Valhallian Liberation Army The opposition to the VDPP, the VLA has an armed wing and a political wing. Both sections are lead by the Rast family, with Dentara Rast leading the armed wing. Like other opposition parties on Valhalla, the VLA are banned by the ruling party.

Vega Line Corporation This corporation is based in Vega [-3,2], and has major interests in tourism, leisure and agriculture. There are rumours that a large percentage of the agricultural output of the Corporation (Animal Skins and Live Animals) is sold almost exclusively to systems where they are illegal has been vigorously denied. It has been suggested that the large number of assassinations of Vega Line Corp. personnel during the first half of this century were aimed at least in part to prevent this news spreading. They also construct ships — a business sector which is bringing major new income to the corporation.

Walden, Dr The dictator of Lave, Dr Walden has been in power for a long time, and rules the system with an iron hand. There are a number of stories of how Walden became the ruler of Lave, but the most likely one seems to be that Walden came to Lave as a botanist, researching the famous Lavian tree grub. He found favour with the then ruler of Lave, Matthew Major, and was appointed as scientific advisor. Over the years that followed, he became popular with most of the government, and began to take part in the various intrigues going on behind Major's back.

Walden made his way up to be the deputy president of Lave, and was given a caretaker job while Major went to a conference of the heads of the independent states in the region that was going to be at Zaonce, accompanied by a guard of his best pilots flying Fer-De-Lances. What happened to Major after leaving Lave is a mystery. He never arrived at the conference, but all of his escort docked with minimal damage. It is said that the entire formation misjumped, and were met by a heavily armed Tri-Alliance formation, who were under orders to kill Major. The escorts, rather than help Major, also began shooting at his ship, and Major perished in the battle.

Whatever the truth is, Walden took control of the government of Lave with no resistance, and has been in charge ever since. The unusual thing about Walden is that he has been in charge for about 70 years, but does not look any older than 40. His appearance has never changed from when he first arrived in the system, and there is speculation that he is not really human. This impression was further enhanced by his surviving an assassination attempt where the would-be killers used a canister of deadly nerve gas, only to see Walden leave the room unscathed. The attempt was an outside job, probably funded by pirates, as the people of Lave love their leader.

Werner Industrial Corporation Werner Industrial Corporation is a very high-tech company, and the galaxy's biggest computer supplier. It also makes robots for a large variety of purposes, with the military as the biggest customers. Werner Corp. has recently moved into the lucrative dreamware market.

5.3 Police

The Police are constantly monitoring the space lanes for breakers of the law, and a criminal record is a terrible thing to have. Although the Police have some of the finest pilots of the galaxy in their numbers, and the Viper Defence Craft they fly might be stuffed to the gills with weaponry, so long as you stick to the side of the law they will never give you any trouble. To help you with this rather difficult feat (there are at present 172,934 different laws that will furnish you with the death penalty in the Empire alone), here is the beginner's guide to Intergalactic Law.

Piracy and Murder It's living proof of the archaic police system that exists in the galaxy that, when attacking a ship in the presence of a police vehicle, it constitutes piracy and murder. Still, whatever you do, never attack a vehicle near a space station or ground base — both are crawling with cops.

Assaulting a Police Vehicle Considering that the only time most people ever see a police Viper, it's bearing down on them with all cannons blazing, it seems unusual that firing back also constitutes an offence — which can have you sentenced and executed within the same three second space of time.

Docking Without Clearance Space Stations and planet based landing pads are the property of Traffic Control. All trespassers will be blown away without trial.

Launching Without Clearance It's a very hard job directing the flow of traffic in and out of a planet — that's why the Traffic Controllers are paid so much. Go against them, and you'll rarely make it to the hyperspace zone.

Loitering Hanging around planets and space stations is not permitted, and any craft that do are liable to be boarded, searched and then destroyed.

Importation of Prohibited Goods Every planet has a list of prohibited goods that are not allowed in the system. Naturally these are the ones that generate the most profit. Get caught with them, and you'll be wiped off the face of the cosmos.

Exportation of Prohibited Goods Participating in the black market can earn you tons of cash, but can also cost you your ship, not to mention your life.

Assassination Some of the highest paid missions in the galaxy are assassination jobs, and many need to be carried out near a base. If the Police catch you, you'll be done for piracy and murder, along with the price of being a freelance killer

Dumping Waste in Space Although space is an absolutely enormous place, there is now so much junk floating around in it that entering a planet's atmosphere while avoiding the stray satellites is almost as tricky as landing on the thing. As a result, all rubbish must now be disposed of within space stations and planet bases only, and then only by designated personal. Jettisoning rubbish is an executable offence.

Firing Weapons in a Forbidden Zone Legend tells of a time when soldiers, who were in fear of their lives, could always find haven in the old religious centres known as churches. These days you just need to be within 3 kilometres of a space station or planet dock, where all weapons are forbidden, and firing one is reason enough to have you blown out of the air.

Mining on a Colonised Planet Mining is regarded by many as free trade, but that doesn't mean you can mine anywhere you want to. Any colonised planets are deemed to be 'owned' by the power that is colonising them, and any attempt to mine the ore or minerals from such a planet can only be deemed to be theft. If you want to mine, you'll have to find an unpopulated planet, otherwise known as common land.

Non-Payment of Police Fines All of these crimes, and hundreds of thousands more, carry stiff financial penalties. Failure to pay your fines can result in a spontaneous police attack, which is almost invariably fatal. Keep an eye on your police record for more details.

5.4 Maps and tables

The galaxy is a big place! In choosing where to go next, you have to consider many factors — whether a system is aligned with the Empire, Federation or Alliance, what sort of government it has, whether permits are needed, what its tech level is. Indeed, you often have to consider all these factors at the same time! Figure 52 on page 122 combines all the information in a single map.

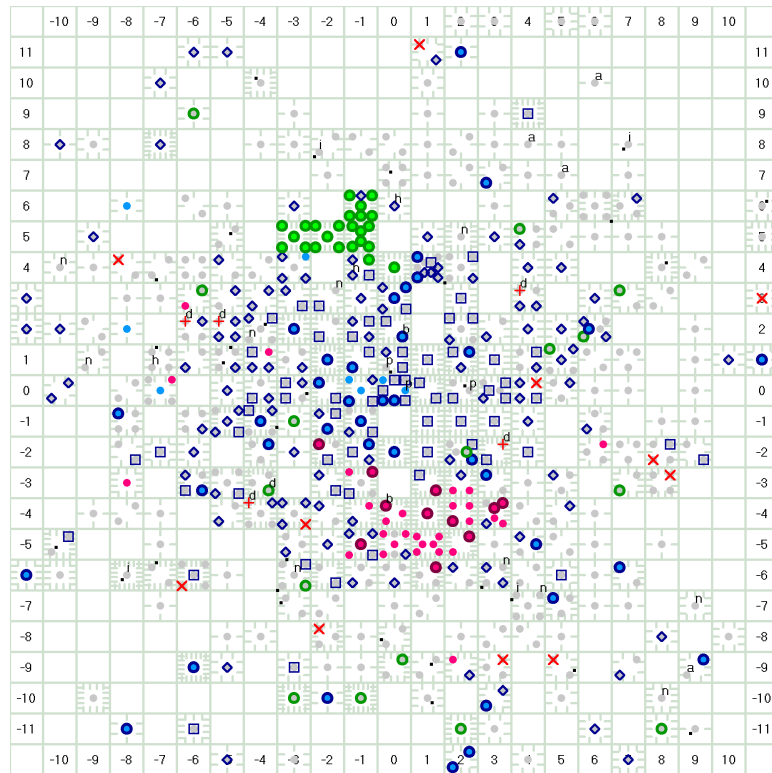
The map has so much information on it, it may be a bit bewildering to read! Here is a how:

- Only *populated systems* are shown on this map.
- *Colour* represents the allegiance of a system. Green is the Alliance, blue the Federation, and Red the Empire. You can see that the Alliance is a close-knit bunch of systems to the North, while the Federation is widely scattered. Grey systems are independent.
- The Federation and the Empire have *core worlds*, indicated with a heavy border. Their systems without borders are *colonies*. Note that the Alliance has no colonies.
- There are many different government types in the independent systems. These are represented with borders, crosses or dots on the systems. A *green circle border* indicates an independent democracy; a *blue border* indicates a system run by corporations; a *black dot* indicates an oppressive regime; a *red cross* indicates conflict; and independent systems without any such decorations are anarchies.
- *Green dashes* around each sector indicate its technology level. Add up the dashes on the top and the right hand side (or, if these are obscured, you can add up the bottom and left hand sides). This gives you the highest technology level of any system in that sector. If you're looking for a high-tech system, look for the sectors with lots of dashes.

The map doesn't quite cover all populated systems — there are a few outlying systems further out.

5.5 Where to find equipment

It can sometimes be frustrating, trying to find a particular piece of equipment — especially when you can't seem to find a system with a tech-level high enough! Table 11 on page 123 should help.



- Imperial rule
- Imperial colony
- Federation democracy
- Federation colony
- Alliance democracy
- Democracy
- Corporate state
- Local corporations
- Communist
- Local barons
- Dictatorship
- Religious dictatorship
- Martial law
- Civil war
- Anarchy
- p permit required
- n no police presence
- b military base
- i interdict
- d disputed
- a abandoned
- h hidden

Figure 52: Map of populated systems

1	Passenger cabins
2	Cargo bay life support
3	XB74, atmospheric shielding
4	Scanner, 1MW pulse, fuel scoop
5	KL760, chaff dispenser, cargo scoop conversion, interplanetary drive, class-1 hyperdrive
6	Autopilot, 5MW pulse
7	Auto-refueller, 1MW Beam, class-2 hyperdrive
8	Nav-comp, laser cooler, shield generator, 30MW mining, escape pod
9	Auto-targeter, radar mapper, ECM, class-3 hyperdrive
10	LV111, hyperspace analyser, tractor beam, 4MW beam, 100MW beam, class-4 hyperdrive <ul style="list-style-type: none"> • Enaness [-5,1], Enioar [-3,-4], Vega [-3,2], Krüger [-1,2], Sohoa [0,-4], Wolf 359 [0,0], Zeanlia [2,2], Andzeho [4,9]
11	NN500, MV, missile viewer, combat computer, MB4, energy booster, naval ECM, hull auto-repair, energy bomb, 20MW beam, military-2 hyperdrive <ul style="list-style-type: none"> • Anquphi [-3,-10], Olgrea [-3,5], Fomalhaut [-1,0], Sol [0,0], Beta Hydri [0,-2], Aymiaγ [1,4], Achenar [1,-4], Ioququ [3,-4],
12	Plasma accelerator, class-5 and higher hyperdrive, military-33 hyperdrive <ul style="list-style-type: none"> • Canarbe [-6,-9], Arinack [-5,-1], Ayanex [-2,5], Barnard's Star [-1,0], Gateway [-1,4], Facece [0,-4], Altair [-2,1], Milogre [2,-5], Ross 986 [2,1], Ethceda [12,6]

Table 11: Equipment tech levels, and some places you can buy it

5.6 Some interesting systems

Achenar [1,-4]

Allegiance:	Empire
Type:	Imperial Capital, Seat of the Emperor
Government:	Imperial Rule
Imports:	Slaves, hand weapons, computers
Exports:	Fruit & veg, animal meat, liquor, luxury goods, chaff
Illegal goods:	Nerve gas & radioactives
Illegal trade:	Gilmour Holdings, Duval City (don't accept bribes)
Distance:	57.78 AU upon hyperspace arrival

Achenar is the capital of the Empire. The capital city is Duval City, on the planet 'Capitol'. This system has a rich supply of equipment available, at all technology levels. It is not recommended that you take military delivery missions to this system due to the large distance to the nearest starport when you arrive.

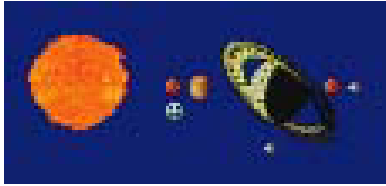
Ackcanphi [-4,-4]

Allegiance:	Independent
Type:	Disputed system between Empire and Federation
Government:	None (Martial law)
Imports:	Medicines, heavy plastics, industrial parts, computers, robots
Exports:	Precious metals, gem stones
Illegal goods:	Animal skins, live animals, animal meat, synthetic meat, nerve gas, narcotics, battle weapons
Distance:	114.112 AU upon hyperspace arrival

As soon as you hit the system, head for the ocean world of Biggs. Set under the backdrop of Ackcanphi C, its starport, Schneider Base boasts the most scenic views of any of the outlying starports. The city itself has an array of features — note the snow capped mountains, the famous red bridge spanning the forked Schneider river and, most striking of all, the giant Obelisk towering over the busy city streets. How long this serene scene will last is anybody's guess: be sure that if the Empire gain a foothold here, then the Precious metals division of Sirius Corp. on the outskirts of the city will be forced to move elsewhere. Visit Biggs and view its stunning sunset while it is still a relatively safe, peaceful domain. Oh, and if you have a military drive, be sure to bring some extra drums.

Ackwaze [-1,6]

Allegiance:	Alliance, joined 3249
Type:	Industrial
Government:	Alliance Democracy
Population:	325,000
Policing:	Minimal — starports only
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star. Cold inner planets.



Ackwaze is a minor industrial member of the Alliance, the industries comprising largely of mining and the production of alloys and plastics for the shipbuilding industry.

The system is also home to the Ackwaze Space Science University. The university is one of the most prestigious space science institutes, offering courses from the usual undergraduate degrees to advanced postgraduate research posts.

Since this system is not a major trading system, the police budget for deeper space policing is minimal at best. Authorities welcome bounty hunters in their efforts to clean up piracy.

Alioth [0,4]

Allegiance:	Alliance
Type:	Capital of the Alliance
Government:	Alliance Democracy
Policing:	High — piracy is non-existent
Population:	9.7 billion
Tech:	High
Imports:	Computers, farm machinery
Exports:	Grain, fruit & veg, animal meat, medicines, chaff
Illegal goods:	Animal skins, live animals, nerve gas, narcotics, slaves, hand weapons, battle weapons
Distance:	23.63 AU upon hyperspace arrival



Alioth is of course famous as the birthplace of the Alliance of Independent Systems and the home of New Rossyth Shipyards. The history of Alioth is one of trouble and strife. Originally colonised in the 29th century, it was an independent frontier system. Neither the Federation or rapidly forming Empire paid it much attention, until both almost simultaneously discovered the rich source of energy from the star. The colonies had already set up factories, and were doing a brisk trade in fuel. The Federation, being relatively close by, tried to coerce the local population into having the system join the Federation. However, the population wanted to remain independent. The Empire on the other hand was less subtle, and thought they could take the local population by force. However, the Federation had also decided to invade. Inevitably, both battle fleets ended up converging on Alioth at the same time. As the year 2900 dawned, both forces were to play cat-and-mouse with each other, and an uneasy truce was declared. The Empire controlled part of the system, and the Federation another. The locals were not at all happy with this state of affairs.

It wasn't a really big surprise when during a more tense moment in Empire/Federation relations, fighting broke out once again with the hapless locals caught in the crossfire. The year 3228 marked the lowest point of relations between the two powers for over a century. Finally, the patience of the seven billion inhabitants collectively snapped, and aided by fighter pilots from neighbouring systems, a savage and concerted effort began to repel both sets of invaders. After 18 months of intense fighting in what became a three-way free for all as all three forces fought each other, the Empire's supply lines became overstretched,

and the Empire was forced to withdraw. The Federation's campaign was deeply unpopular amongst its own citizens, and with the rebels now being able to focus all their energy on the remaining invader, the Federation were also forced to withdraw.

Many nearby independent systems had watched the action in awe. Most of the fighter pilots had actually come from neighbouring systems, and in light of this, the new Alioth Government called for the creation of an alliance to ensure the security of the region. Each Alliance system has a basic code of freedom and human rights that Imperial and Federation citizens can only dream about.

Technologically, Alioth has flourished since the Alliance was created in 3230. New Rossyth Shipyards has brought an enormous amount of prestige to Alioth, with the legendary Mic Turner designs that are popular amongst many pilots. The controversial Department of Alien Studies is located on Wicca's World. Due to the leading-edge technological base, and the raw materials that are exported from the system, Alioth's wealth now rivals that of Sol. The standard of living is very high.

Astronomical Astronomically, Alioth has an interesting history. It has been known to humankind for millennia, and was even used to help sailors navigate in the pre-technological era of Earth. Also known as Epsilon Ursa Majoris, Alioth forms part of the constellation Ursa Major, also known as 'The Big Dipper' or 'The Plough'. From Earth, this group of stars acts as pointer stars to Polaris, which was a very important star for early navigators since it always pointed the way to the North Pole of Earth. The group of stars that form this part of Ursa Major (the Great Bear) have been recognised in early pre-technological human history, found in literature dating back before the ancient Greek civilisation. The earliest use of the name Alioth dates back to the Alfonsine Tables, published in the Earth nation state of Spain in 1252. It is thought that the name may have originated with the word Alyat meaning 'The Fat Tail of the Eastern Sheep', although many historians now feel this is unlikely. The star's name was often spelled 'Aliath'.

The most important stars in the Ursa Major constellation from the Earth point of view is Dubhe, Merak, Phekda, Alioth, Mizar and Alcor. From Earth, Alioth is the brightest of this group.

The star itself is a main sequence, variable bright giant star, which as has been noted is a good source for producing military fuel (although not as potent as bright white stars). The luminosity of this star means that life supporting planets are a great distance away to remain viable.

Anayol [-2,5]

Allegiance:	Alliance, joined 3232
Government:	Alliance Democracy
Type:	Mining
Population:	625,050
Policing:	Average — piracy relatively common
Tech:	Most equipment available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons



Anayol is a quintuple system. Anayol A is a red giant star, no longer on its main sequence and coming close to the end of its life. Anayol B is a main sequence, type M star that orbits A as if it were a planet. Anayol C and D are almost like a binary system to themselves, consisting of two main sequence

type M red stars orbiting each other, but ultimately orbiting Anayol A. Finally, Anayol E is another main sequence type M star, orbiting Anayol A. None of the planets are remotely suitable for terraforming. Even though Solo's Grave is quite warm with its close orbit, it is simply far too miniscule and is soaked by hard radiation from Anayol E.

Scientists have long been curious about the Anayol system. It is quite unusual to have four main sequence stars orbiting an ancient red giant. It is postulated that the other stars may have been a quadruple system that was moving in the direction of Anayol A, to eventually be captured in its gravitational field. Not all scientists are convinced of this at the moment, and research continues.

There is very little of note in this system outside of the astronomical curiosities. Nearly all of the industry here is based around mining the planets and asteroids since useful minerals are still abundant. The civilian government was formed specifically so that the system could join the Alliance. The system itself was only relatively recently colonised. The first industries arrived in the system in 3186.

Antares [-39,-34]

Antares is an interesting system.

Arexex [-1,6]

Allegiance:	Alliance, founding member
Type:	Mining
Government:	Alliance Democracy
Population:	235,000
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Fairly active main sequence type M flare star.



Arexex has a moderate industrial output, but that isn't why it receives the number of visitors as it does. Only about 50,000 of the population are employed by industry.

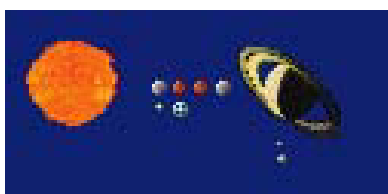
The system is instead notable for its gambling. It is a major centre for hoopy casinos — most of the space in Glasgow, on Kohl's Wreck, being casinos and entertainment. The services there employ the majority of the system's population and make vast quantities of money. The casinos were originally started in 3205 by some entrepreneurial miners. Their venture was so successful that within a year they could give up their jobs as miners, to concentrate on the

casino business full time. Initially, the casinos were largely used by the industrial workers who lived in the system, but word soon spread, and the system was a major gambling capital of the region by 3212.

Police activity near the gambling centres is very strict, and there is absolute enforcement of the no weapons rule in the starport area. You are advised to leave any weapons safely locked away in your ship.

Ayanex [-2,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	822,350
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star. Low star temperature, small inner planets.



This small and unassuming system was the scene of a significant and well-known civil rights movement. Originally colonised in the mid 2770's, the system was used mainly as a large corporate base for several companies. Later, a civilian government was instituted.

However, the government became increasingly corrupt, and by the year 3000, was sliding into a state of totalitarian dictatorship. In 3050, the citizens decided they had put up with enough, and revolted. An extremely limited civil war followed, and by 3055, a new government was in place. However, much to the dismay of the freedom fighters, it wasn't long before the new government was equally as corrupt and dictatorial as the last one. In 3072, another civil war broke out and the latest government was yet again displaced. The system then became peaceful at last. However, history has a bad habit of repeating itself. By 3190, once again, the bad old days were returning. This was swiftly nipped in the bud, and the government was this time replaced by peaceful means. A full constitution was enacted to try and stop this happening again.

Economically, this system is moderately prosperous. Mining is no longer a large industry. Instead, the system's main staple is manufacturing industry of various types, from heavy plastics to microelectronics and nano-machinery.

Ayessqu [-1,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	452,050
Policing:	Minimal — starports only
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star.



alloys.

Ayessqu is a moderately productive industrial system, supplying surrounding systems with raw materials from the mines, and processed products such as heavy plastics and

The system was an SSSI (System of Special Scientific Interest) for a brief period. The normally steady type M red star underwent a sudden period of flare activity during the late 31st Century. The flare activity lasted approximately ten years and never happened again. Scientists are still unsure of why this star exhibited this behaviour, and studies continue.

Aymifa [2,-5]

Allegiance:	Empire
Type:	Imperial terraformed world
Government:	Imperial Rule
Imports:	Slaves, hand weapons, computers, robots
Exports:	Grain, fruit & veg., animal meat, narcotics, animal skins, luxury goods, chaff
Illegal goods:	Nerve gas
Distance:	8.425 AU upon hyperspace arrival

The Aymifa system is well-known for the extreme geological instability of one of its planets, Popov Reward, which once lead to the destruction of an entire space port. Tourists should visit the spot where the radio beacon of the Watsonville space port (which is still active) is buried 20 kilometres below the surface. The impressive sight of the monument in memory of this natural disaster, depicting the space port as it once existed, is certainly worth a visit.

After Popov Reward, don't forget to visit nearby (1.69 LY) Ackzece, with its fascinating fly-through planetoids.

Ayqugre [-6,-6]

Illegal goods:	Battle weapons
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Ayqugre is famous throughout human space as being the system in which there is the oldest, and possibly the largest, civil war in history. It is estimated that close to 1 billion beings are caught up in the fighting. Precisely why the huge conflict started is now lost in the mists of time, since the conflict has annihilated all but a few of the sources of information about its history. Since narcotics is still listed as a major export (even though production seems to have ceased) it is possible that it originally started as a disagreement between some drug cartels and the system's government.

Whatever the cause, the system is now known among traders as the system to export to if you want to make money out of weapons. Indeed, it seems that the arms giant Perez Corp. make a large number of their sales to this system. Although almost all industry and agriculture here has been destroyed in the conflict, the system's main income is from the export of mercenaries forged in the eternal struggle between the main clans. Their fees are then used by the clans to buy weapons. Such is the demand here, that it is unlikely that you will

ever make as much money through selling weapons anywhere else — and nor without legal comeback.

Curiously, this system is one of the few systems in which it is legal to buy and sell nerve gas, yet both the Federation and the Empire have chosen only to ban the sale of Battle Weapons here. Rumours that this is because the two superpowers are trying to off-load their inventories of nerve gas to this system are, of course, completely unsubstantiated.

Beta Hydri [0,-2]

Allegiance:	Federation
Type:	High Population Outdoor World
Government:	Federal Democracy
Imports:	Computers, farm machinery
Exports:	Grain, fruit & veg, animal meat, chaff
Illegal goods:	Narcotics, animal skins, slaves, battle weapons, nerve gas
Distance:	10.69 AU upon hyperspace arrival

The biggest Federal base in this region, Beta Hydri is located right next to the Federal/Imperial border. There are a number of major Imperial bases nearby, so it is a good base for bombing and photography missions. There have been reports of major smuggling activity by traders buying goods legally in nearby Exioce [-1,-3] and then selling them on the black market in this system, but the Federal authorities have denied this.

Beta Lyrae [-146,85]

Beta Lyrae is a contact binary. Unfortunately, the game crashes when you visit it.

Betelgeuse [59,14]

It's possible to fly through into the atmosphere of the gas-giant Betelgeuse B.

Canopus [6,-6]

Allegiance:	Independent
Type:	Some small scale mining operations
Government:	None (Anarchy)
Imports:	Water, liquid oxygen, fruit & veg.
Exports:	Minerals
Illegal goods:	None

Forget Riedquat — Canopus is one of the most happening places in the galaxy! As an anarchy, there's a lot of trouble to be found here, and the large distance between your entry into the system and docking at the nearest starport will give you ample combat practice. For the more adventurous tourist, Canopus 1 is literally one of the hottest planets around — a mere 1.4 AU from the giant white star, it has a surface temperature of some 1,000 degrees celsius. Landing is unfortunately impossible due to the proximity of the sun.

Enaned [-4,-8]

Allegiance:	Independent
Type:	Frontier outdoor world
Government:	None (Anarchy)
Imports:	Medicines, slaves, luxury goods, heavy plastics, metal alloys, hand weapons, robots
Exports:	Water, liquid oxygen, animal meat, animal skins
Illegal goods:	battle weapons, nerve gas
Distance:	93.520 AU upon hyperspace arrival

The Pink skies cast a constant veil over Camp Carter on Yamaha, and disguise the bitterly cold air temperature. Orbiting the Enaned C star, The Port of Camp Carter houses two domed conurbations. While the residential sector is pleasant enough, it is the red bricked Vega Line Research Laboratory found in the second sector that looks more impressive every time you visit. And visit you should!

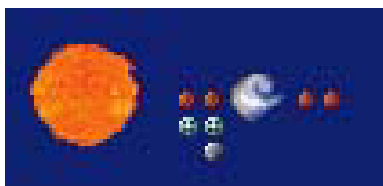
Eta Cassiopea [0,2]

Allegiance:	Federation
Type:	Federal Naval Base
Government:	Capitalist Democracy
Imports:	Medicines, fertiliser, heavy plastics, metal alloys, military fuel, industrial parts, computers, farm machinery, robots
Exports:	Grain, fruit & veg, animal meat.
Illegal goods:	Nerve gas
Shortages:	Military fuel
Distance:	10.09 AU upon hyperspace arrival

Eta Cassiopea is the main Federal Military base. The most practical piece of information commanders need to know is that the system is always out of stock of military fuel. It is therefore essential that you bring enough to get out of the system! Although not as busy as Facece [0,-4], there are usually a reasonable amount of missions to surrounding stars available here.

Ethgreeth [-3,5]

Allegiance:	Alliance, founding member
Type:	Purely industrial
Government:	Alliance Democracy
Population:	217,500
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star. Cool star. Inner planets mineral-rich.



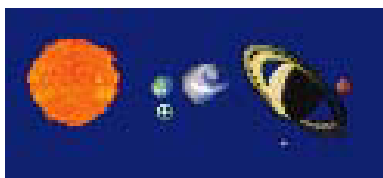
to large plasma accelerators. The company has major factories on both Charlesworld and Dobson.

Although the inner planets are fairly high in useful mineral content, mining is not a particularly large industry here. This is mainly due to the ease of obtaining mineral products from the nearby Holiacan system. The only mining performed is by companies who wish to obtain their own raw materials to build their end products.

The policing levels are not particularly high, due to the low population. Bounty hunters are therefore encouraged to assist the police in keeping the space outside of the immediate planetary vicinities as pirate free as possible.

Ethwain [-3,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	989,250
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, flare stare. Unusually benign, allowing terraformation.



after a shaky start, proved successful.

This system had very little worthy of note until Ethwain 1 was terraformed. Originally settled by a small group who wanted to find peace away from the core systems, the system never became particularly prosperous. Eventually, the original group left. The system was uninhabited between 3150 and 3160.

In 3160, a science team paid a visit to see how the terraformed world of Hopi had coped without the active participation of a human population who had been keeping the upper atmosphere's levels of ozone artificially high. It was found that a few strains of plants were resistant to the outbursts of Ethwain during the flare periods. The relevant genes were analysed, causing a breakthrough in the understanding of life's resistance to certain levels of stellar radiation that was to later aid the terraformation of other planets orbiting flare stars similar to this one.

The system was resettled in the 3170's, with several industries moving in to take advantage of easy accommodation for the workforce. The system ultimately

Ethgreeth is a purely industrial system. The most notable corporation to have factories in this system is Lance & Ferman Weapon Systems. This company is famous for building quality equipment for military and civilian defence alike, from small hand held weapons

Originally, the system was unsuitable for any terraformed worlds, but further studies of the star showed its flare activity was relatively benign, especially compared to the flare stars in nearby Olgrea. Terraformation of Ethwain 1 (now Hopi) began in 3089, and

became an Alliance founder member, and Hopi provides a training ground for the AIS's planetary defence forces.

Exioce [-1,-3]

Allegiance:	Empire
Type:	Imperial Terraformed World
Government:	Imperial Rule
Imports:	Fertiliser, slaves, hand weapons
Exports:	Animal skins, luxury goods, computers, robots
Illegal goods:	Nerve gas
Distance:	10.54 AU upon hyperspace arrival

Exioce is situated right on the border between the Empire and Federation. Commanders serving the Emperor will find that this is the most convenient base for bombing and photographic missions, due to the proximity to Federal Military bases.

Facanbe [-6,-11]

Allegiance:	Independent
Type:	Frontier outdoor world
Government:	Corporate State
Imports:	Fertiliser, farm machinery, robots
Exports:	Fruit & veg, animal meat
Illegal goods:	Narcotics, animal skins, slaves, battle weapons, nerve gas, radioactives
Distance:	10.773 AU upon hyperspace arrival

Lawrence's world is the only habitable planet in the system. Gordon Town, on this planet, must be one of the cleanest locations in the galaxy — the clean, crisp mountain air and the cobalt blue skies truly make this a refreshing place to visit. The view from Gordons Mount, which segregates the two domes is awesome, and well worth the hike. From its summit the keen-eyed can even spy The Sirius Corp. Southern Sector Accounting offices.

Because of the 24hour Elite Ships building found near Sirius Corp. in the centre of the commercial district, the choice of Freighters in the local shipyards is second to none. Boa, Anaconda, Python, are all good value here.

Facece [0,-4]

Allegiance:	Empire
Type:	Imperial Outdoor Worlds and Naval Base
Government:	Imperial Rule
Imports:	Computers, robots
Exports:	Live animals, animal skins
Illegal goods:	Narcotics, battle weapons, hand weapons, nerve gas
Illegal trade:	Köhl Depot (Seymour's Merchandise)
Distance:	9.59 AU upon hyperspace arrival

Facece is the main naval base for the Empire. A commander who wishes to serve the Emperor will find that they will advance quickly when based here, as there

are always a lot of missions on offer — particularly deliveries to neighbouring systems Vequess [0,-4] and Sohoa [0,-4]. Because of the large number of powerful naval bases here, there is almost no pirate activity.

Faceze [-1,5]

Allegiance:	Alliance, joined 3237
Type:	Industrial
Government:	Alliance Democracy
Population:	996,000
Policing:	Better than average — pirates only in deep space
Tech:	Most equipment types available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Ternary system of type M, main sequence, flare stars



Faceze was initially a Federation outpost when it was first colonised in 2786. At the time, this region of the galaxy was very sparsely populated. The system gained its independence by peaceful means only ten years later. The Federation simply lost interest in this part of space.

As an independent system, moderate success was to be had, but this didn't stop the system from falling into an anarchic state during the early 2800's. Piracy became rife, and the traders that were the lifeblood of the industrial economy melted away. As such, a sullen, economic depression beset the system.

The system's fortunes improved when a wealthy entrepreneur named Jethro Marks decided to set up shop in the system. Terraformation of Faceze Cb was initiated, and Marks renamed the planet 'Scunthorpe', after his home town on Earth. The planet proved easy to terraform despite the light flare activity of the star. It soon became apparent why Marks had entered the system — an exploration team had found rich deposits of platinum deep beneath the surface. The value of platinum was at an all time high, being a major component of hyperspace drive emitter arrays.

Marks is of course long dead, but his legacy lives on. The Marks Mining Corporation still employs some 20,000 people, by far the largest employer in the system. Scunthorpe is nowhere near mined out, the estimates being several thousand years worth of platinum within the planet's structure. The system has had a civilian government since 3096, and met all the criteria for Alliance membership before the Alliance was even created. It was to eventually join in May 3237.

Astronomical Faceze is a ternary system, consisting of three type M, main sequence, flare stars. Faceze A and B orbit each other as a binary, and Faceze C orbits the pair. Faceze C is only just classified as a flare star, with generally low flare intensities. Faceze A is an extremely violent flare star, and Faceze B is somewhat more moderate.

The system contains two brown dwarf substellar objects which are considered to be failed stars — they glow dimly and produce significantly more radiation than they receive.

Due to the low flare activity of Faceze C, it wasn't too challenging to terraform Faceze Cb, now known as Scunthorpe.

Gateway [-1,4]

Allegiance:	Alliance, founding member
Type:	Outdoor Jungle World, Tourism & Agriculture
Government:	Alliance democracy
Imports:	Heavy plastics, farm machinery, robots
Exports:	Animal meat, animal skins, medicines, chaff
Illegal goods:	Slaves, narcotics, live animals
Policing:	Good, but deep space piracy still exists
Tech:	Most equipment types are available
Distance:	11.76 AU upon hyperspace arrival
Physical:	Giant red star, no longer main-sequence



Formerly known as Oltiqu, Gateway got its new name when it joined the Alliance as a founder member in 3230 after the uprising at Alioth. A primary trading system within the Alliance, it was a natural trade gateway with the Federation to the south — hence its

name. Although Gateway was not a disputed system like Alioth, the population was deeply sympathetic to the plight of Alioth's citizens, and a large part of the system's militia came to the aid of the rebels in Alioth during the uprising.

Now that the scars between the Alliance, Federation and Empire have healed, trade has been brisk. A large proportion of the bulk trade between the Alliance and the other two galactic powers comes through this system. The result is that the economy here is extremely strong, and it is a very desirable place to live. Despite this, the pirates have still managed to maintain a small foothold in the more distant reaches of Gateway's space, despite the best efforts of the police.

The system has also become an important administrative centre for the Alliance Joint Navy. The Turner Space Combat Academy has its main training base at Dublin Citadel, in orbit around Hope. Thousands of new AJN cadets pass through this facility each year. The Curie Engineering Institute, one of the best engineering universities in the galaxy is also based at Hope. This has of course led to some interesting (and mostly drunken) rivalry between the cadets at the TSCA and students at the CEI, not to mention sprouting one of the best social environments for undergraduate students this side of Sol.

Hope is also an extremely productive planet from an agricultural standpoint, producing significant quantities of natural foodstuffs. Industrially, Gateway is not a major player, but the Continental Drive company has its main manufacturing facilities in Turner Town.

The Old Curie starport is famous as the starting point for the Wiccan Ware race, which is run by the Dreamware group Jjagged Bbanner.

Gateway is one of the very few civilised systems where Nerve Gas is legal.

Astronomical Gateway is a red giant star. The star is no longer a main sequence star, with the bulk of its reaction being the fusing of helium instead of hydrogen. It is a very old star, projected to be billions of years older than Alioth.

Life is believed to have emerged on Hope some time after the star became a red giant. Research on the planet reveals it was far too hot when the star was on its main sequence. Life forms are quite different to the ones that gave way to human evolution, having evolved under a quite different spectrum. Hope is still a hot planet by human standards — the equatorial regions regularly attain daytime temperatures in excess of 60 degrees Celcius, which is intolerable to human life. The humidity is also exceptionally high planet-wide, usually exceeding 80 percent r.h.

Hadar [-6,-40]

Hadar is an interesting system.

Hoenin [-1,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	989,250
Policing:	Average — piracy relatively common
Tech:	Most equipment types available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Ternary system: binary pair of type M main sequence red stars, and a type M flare star



The initial population of this system was somewhat unusual. The original settlers arrived in the late 28th century. Their dictatorial leader was the somewhat eccentric and egocentric member of the Duval dynasty, Prince Joreb Duval. Nicknamed Caligula by his contemporaries due to his unusual and seemingly insane decrees that he inflicted on the long suffering colonists, he was eventually overthrown by a civil coup d'etat. The only person this bothered was the Emperor, but the Emperor wasn't all that bothered and never came to reclaim the colony.

This system is another highly industrialised centre of the Alliance. Many companies have factories in Hoenin system space, producing virtually any manufactured product you can name. The system is also home to the Flare Star Research Institute, who are trying to refine the art of stellar 'weather forecasting' to provide colonists in flare star systems more accurate warning of flare activity.

Astronomical Hoenin is a ternary system, consisting of a binary pair of type M, main sequence, red stars, and orbiting the pair at 320 AU, a type M flare star. All of the inhabited planets orbit Hoenin C, the flare star. None of the planets are suitable for terraformation due to the extreme amount of hard radiation emitted from Hoenin C during flare periods, and the small sizes of these planets. Hoenin C is one of the most unpredictable and obnoxious flare stars in populated space.

There is a strong body of evidence that Hoenin C and its planets were originally a completely separate system that became trapped in Hoenin A and B's gravitational pull. The perigee of Hoenin C's orbit is a little under 300 AU's, which is about 37 light-hours. This is quite some distance for a single star to orbit a binary pair, especially considering the small size of Hoenin A and B. Although all stars in the system are Class M, some trace elements found in Hoenin C are not found in A or B.

Holiacan [-3,5]

Allegiance:	Alliance, joined 3247
Type:	Industrial
Government:	Alliance Democracy
Population:	656,000
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star. Cool star; mineral-rich inner planets



This system is a relatively productive industrial system. The inner planets have extensive mining and manufacturing industrial complexes. The Foam Metals Corporation and the Alclad Metal Manufacturing Company are the most notable industrial entities in the system, producing a significant proportion of the Alliance's export trade in the alloys used in spacecraft construction. There are several large production facilities for buckminsterfullerene — a vital component of ship-grade alloy production.

The most notable feature of Holiacan's history is the participation in the terraformation of New Gotham in Olgrea. The industries here supplied most of the materials used in building the shield that allowed life to get a grip on New Gotham without disruption from Olgrea E's flare activity.

The levels of policing are not particularly high, and the system makes a good place to bounty hunt. The authorities here encourage bounty hunting since with a relatively low population, they do not have enough resources to patrol much outside of the immediate vicinity of the system's starports.

Indaol [-1,6]

Allegiance:	Alliance, joined 3231
Type:	Industrial
Government:	Alliance Democracy
Population:	225,500
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star.



The system has garnered scientific interest in having the largest discovered asteroid, In-daol 17785-M. Otherwise, there is not much of interest.

Lawacan [-1,6]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	345,000
Policing:	Better than average
Tech:	Most equipment types available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star.



The system is a major industrial centre of the Alliance. Significant quantities of useful minerals are to be found, and many corporations have set up manufacturing plants. The most notable corporations are the Continental Drive Corporation, Lance & Ferman Space Systems, and Faulcon DeLacy Space Systems.

Liaethfa [0,7]

Allegiance:	Independent
Type:	Some Small-Scale Mining Operations
Government:	None (Anarchy)
Imports:	Water, liquid oxygen, fruit & veg
Exports:	Minerals
Illegal goods:	None

On the surface, Liaethfa is just another frontier anarchy system, where there is no rule of law. However, there have been rumours that INRA, the shady Intergalactic Naval Research Arm, has a forward base here. Of course, these have been officially denied.

Miandin [-1,6]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	875,500
Policing:	Better than average
Tech:	Most equipment types available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star. Cold inner planets.



renamed Tecumseh.

However, the main claim to fame of the system is its science. In 3117, the Independent Science Council was formed, headquartered at the newly-terraformed Tecumseh. The science council was formed to pool the resources of the frontier systems in the region together for the good of all.

The ISC was very successful in this role. The council's pragmatic outlook led to the terraformation of planets that were thought as unsuitable, such as New Gotham in Olgrea. When the Alliance was formed in 3230, it was noted that nearly all the ISC members were a part of, or about to join, the AIS, and the organization was renamed the Alliance Science Council.

The ASC performs extremely valuable research, drawing on the resources of many universities in Alliance systems. The research does not only benefit the Alliance — both Federation and Imperial systems have benefitted from the ASC's work, whose mission is to advance science to benefit all of humanity.

Aside from being the research capital of the Alliance, the system is visited by many tourists. The wildly varied geography of Tecumseh brings natural beauty that draws visitors from across the Alliance.

Miphize [1,-14]

Allegiance:	Independent
Type:	Frontier Outdoor World. Some farming and tourism
Government:	None (Anarchy)
Imports:	Medicines, slaves, luxury goods, heavy plastics, metal alloys, hand weapons, robots
Exports:	Water, liquid oxygen, animal meat, animal skins
Illegal goods:	Battle weapons, nerve gas, radioactives

Miphize is a strange system. It is an anarchy, with a population of about 90,000 people, and seems to be just another anarchy right on the frontier. However, it is actually one of the main centres of corporate finance. This is very unusual given the fact that there has been an immense civil war raging for almost the entire history of the system.

It was originally settled by some rich Imperial industrialists, who were tired of Imperial interference in their affairs. They brought a large workforce with them, mainly composed of slaves, to exploit the fertile land on Wilson's World. However, conditions were so harsh and pay so low that the slaves revolted against their masters, and exiled them to an obscure island. The new rebel government set up along strictly communist lines, and a number of years passed by peacefully.

However, the government became increasingly decadent, and slavery was legalised. To all intents and purposes they were no different from the old government. Unsurprisingly, the people of Miphize rebelled again, and bloody civil war began between forces loyal to the Communists and the Miphize Liberation Army. At the same time, the original government invaded the main continent armed with weapons which had been smuggled in over a period of years. The

Federation decided to impose peace, and a large task-force was sent from Hocanla [2,-12] to accomplish this. To the surprise of the taskforce commanders, the various factions united to repulse them, and the taskforce was largely annihilated. Afterwards, the factions started fighting each other, with a faction breaking away from the MLA because it blamed the leadership for siding with the Communists against the Federation. The new faction calls itself the Popular Front for the Liberation of Miphize.

With all this conflict, it is rather surprising that almost all of the major corporations have based their part of their accounting departments around York Starport. These buildings are regularly destroyed by the various factions in the war, which usually means that large numbers of financial records are conveniently ‘destroyed.’ It is interesting that the accountants based here are usually the most inquisitive in their respective firms — some might say *too* inquisitive. Despite the offices regularly being destroyed, the insurance companies gladly pay up every time. This confused many commentators until it was pointed out that the insurers also had offices in Miphize. . .

Olgrea [-3,5]

Allegiance:	Alliance, joined 3241
Type:	Agricultural
Government:	Alliance Democracy
Population:	56 million
Policing:	Good, but deep space piracy still exists
Tech:	Basic equipment only
Illegal goods:	Radioactives, narcotics, live animals, animal skins, nerve gas, slaves, battle weapons
Physical:	Complex quintuple system — see text for information.



Planets in this system were found to be relatively rich in useful minerals, so it wasn't long after the system was fully explored that the mining corporations arrived. Useful minerals have started to become mined out in the 500 years since the system was populated, and the system's economy has now

become largely agriculturally based.

The terraformation of New Gotham, formerly known as Olgrea E2, was an interesting and difficult proposition. Olgrea E is a fairly obnoxious flare star, and its planets were thought thoroughly unsuitable for terraformation due to the large quantities of hard radiation emitted by Olgrea E. However, the Olgrean government with aid from the Independent Science Council (which later became the Alliance Science Council), pioneered a new terraforming technique which allows planets such as New Gotham to be successfully populated. First, a buckminsterfullerine structure was erected around the equator of the planet, with support pillars rising from the surface to the geostationary orbital position. Vast shields were erected, blocking out the harmful radiation from the star. Once this was in place, terraformation began, with all the plants having a special gene to emit small amounts of a radex gas in the correct proportions to absorb the unwanted radiation before it reached the surface. Once life was established on the planet and sufficient quantities of the gas were in the atmosphere, the

shield structure was removed.

Development was slow, and the flare star still is a problem for the human inhabitants. During particularly bad periods of solar activity, the inhabitants need to take shelter or use a very strong sunblock lotion to prevent damage. Research still continues into the accurate prediction of flare activity to allow the residents of planets orbiting flare stars more advance warning of flare activity.

The successful terraformation saved this system. Mining was becoming less profitable with all the high value minerals such as precious metals and gemstones becoming scarce. The terraformation has allowed the system to become a prosperous agricultural community, supplying the food needs of many surrounding industrial systems.

Radioactives Military drive users should take note that radioactives are illegal, and the fines are quite severe. The Olgrea government has in more recent years become very sensitive about the needs of the ecology on New Gotham. Attempts to bribe the customs service will be strictly punished.

Astronomical Olgrea is a complex, quintuple system. In fact it's almost a sextuple system, with the planet Olgrea A,B2 being considered a failed star (the brown dwarf substellar object emits a significant amount of radiation and glows dimly). Olgrea A and B are both type M red stars, while Olgrea C, D and E are type M flare stars. Olgrea A and B orbit each other, with C and D orbiting each other in an orbit around A and B. Olgrea E orbits the A and B group. All the stars in this system are on their main sequence, fusing hydrogen to helium.

The planets orbiting Olgrea E are where the population lives. The majority of the population lives on the terraformed world, New Gotham. A difficult world to terraform, this task was taken out by the Olgrea government starting in 3158.

Phekda [2,5]

Allegiance:	Alliance, joined 3296
Type:	Industrial
Government:	Alliance Democracy
Population:	8.8 million
Policing:	Minimal — starports only
Tech:	Most types available
Illegal goods:	None yet
Physical:	Large, type B main sequence blue star



The history of Phekda is one of tragedy, which is hopefully now in its final chapter. Human settlers first arrived in 2495, and much to their surprise found Phekda 6c teeming with life. It was soon named New California, after the settlers discovered natural beauty of the kind that they couldn't imagine in their wildest dreams. The hot blue sun and atmospheric composition led to striking magenta sunsets over the planet, with Phekda 6 being a prominent and strangely beautiful object in the sky. The brown dwarf substellar object would cast an eerie dull red glow if it was visible during night time.

The occasions when Phekda 6 eclipsed Phekda were declared the most striking stellar eclipses visible in the populated galaxy. It wasn't long before humans began moving in mass to the system.

The system had an independent government from day one, and the government soon realised the enormous amount of natural resources that they had found. To cope with expected population increase, terraformation studies on Phekda 6a, 6b and 6d were conducted, and it was found that 6b was an ideal candidate, with a and d being a little on the small side (but sustainable). The terraformation projects began in 2503, and were declared a success when vegetation covered each of the planets by 2505. 6a was named Experiment, due to a new experimental terraformation procedure being used, 6b was named Nirvana, and 6d was named Topaz. People continued to move in and trade was brisk. The future of the system looked as bright as the star itself. By 2580 the population had reached nearly four billion.

Sadly, the prosperity wasn't to last much longer. The rot began to set in when a man named Johan Adams was born. The year was 2595. Coinciding with this were some initial pangs of dissatisfaction amongst workers in the system, who felt they weren't necessarily being treated quite right. And the third link in the chain was growing pressure from the Federation that the system should join the union. And thus the stage was set for the nationalistic fervour that would come, on a scale that hadn't been seen since despotic rulers such as Caligula, Hitler, Milosevic and Hanson had been seen on Earth.

In 2620, Johan Adams became the leader of the Phekda National Front. His popularity increased as hostility towards owners of industry and the Federation's jerrymandering continued. Adams was swept to power five years later, and communist rule began to take over. Initially, the citizens of Phekda were allowed free speech, and it looked like Adams' party might actually succeed as the first communist government that actually worked. It wasn't to last long. Prosperity began to fall and the corporations started leaving. Nationalisation failed, as it always had. The PNF began clamping down on free speech as the citizens and the press began to register their dissatisfaction with the regime.

The totalitarian state remained in place throughout the 2620's and into the 2630's. However, the population that had initially supported Adams' efforts were now simmering with resentment and dissatisfaction. They were goaded by traders who regularly brought illegal firearms into the system. Soon a new movement, known as the PLA (Phekda Liberation Army) was formed. Inevitably, in 2633, civil war broke out.

The civil war turned out to be extremely destructive. Most of the system's space stations were destroyed in nuclear attacks and the only trade that remained was the trade in arms. The full horror of planetary nuclear war was realised, and the terraformation of Nirvana was nearly undone. Experiment and Topaz were laid to waste, with only New California escaping the horror by virtue of being a PONB (Planet of Outstanding Natural Beauty) and therefore having a very low population. Humanity is very fortunate in this respect, otherwise one of the jewels of the galaxy may have been destroyed forever. Over one billion civilians were killed, and countless members of the opposing armies were slaughtered. Within a few years, nearly everyone who could had left the system. The only thing that saved the remainder of the population was that the armies started running out of people willing to fight. By 2640, only 4 million people remained in the system - down from a peak of 5 billion. The Phekda

Civil War was recorded in history as being the most destructive war in human history, and fortunately, this record has still not been surpassed.

A new government was never fully formed. The remaining four million lived in almost tribal communities. Corporations that had been tapping the natural resources returned, and Experiment and Topaz were re-terraformed. The system had collapsed into a state of stable anarchy, and the corporations had to do their own policing. The last attempt at forming a civilian government was in 3145, and was almost successful, but sadly the system once again lapsed into anarchy only a few years later. This state remained until January 3296, when once again, dissatisfaction with the often corrupt corporate management of the system incited the population to rebel.

The latest rebellion was relatively bloodless, the corporations taken completely by surprise. A new Phekda civilian government has formed, and immediately began the procedure to join the Alliance of Independent Systems. Phekda is currently a provisional member of the AIS, receiving full AIS privileges on the understanding that full entry criteria will be met by 3298. With the rule of law and order restored, and help from other Alliance members, Phekda's future once again looks as bright as its primary star.

Astronomical Phekda is a large, type B main sequence blue star. It is interesting because this kind of star very rarely harbours planets with indigenous life, emitting so much electromagnetic energy that it becomes difficult to even put a starbase on many of the inner planets. However, orbiting Phekda 6, which has a perigee of 45 AU, conditions were suitable for life to evolve on Phekda 6c (now known as New California). Additionally, Phekda 6a, 6b and 6d (now known as Experiment, Nirvana and Topaz respectively) were good candidates for terraformation, and were terraformed around the early 26th century.

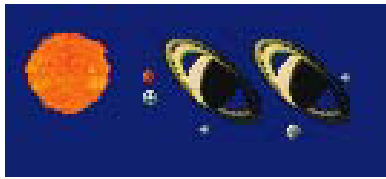
From an astrohistorical point of view, Phekda is a well-known and important star, being used by the ancient sailors of Earth in pretechnological times to navigate. Forming part of the Ursa Major constellation (otherwise known as 'The Plough' or 'The Big Dipper'), Phekda is obvious from the Earth. The name Phekda (often spelled Phecda) derives from the Arabic term Al Falidh, meaning "The Thigh of the Bear". Phekda is also known as Gamma Ursa Majoris, and throughout history has been known as Phad, Phegda, Phekha and Phacd, these names also derived from the Arabic term. Observations of Phekda have been recorded in human history back to the ancient Roman and Greek civilizations, and it is doubtless that this star was observed well before this period.

Pleiades [32,32]

There are lots of systems around here with nice-looking stars.

Quenve [-1,6]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	195,000
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star.



This system would be utterly unremarkable if it wasn't for Walesa Park. This unassuming starport is home to the Walesa Research Institute. While there are research institutes and universities in most Alliance systems, this one is somewhat special. A branch of AAAI at New Rossyth in Alioth, the Walesa Research Institute develops the theory behind AAAI's advanced ship and propulsion breakthroughs.

The WRI actually predates the Alliance, initially being a private research department of the now-defunct Martin Space Company. The company's intention was to become one of the most advanced shipbuilding corporations in the galaxy, and largely succeeded in doing so in engineering terms. However, they were a dismal marketing failure, and the ships they built during the years 3225 to 3227 are now all but forgotten. The Quenve government at the time bought the institute for a song, and the institute began performing work on a contract basis for all comers. The WRI still largely performs in this capacity, with its biggest sponsor being AAAI. With AAAI, at last the WRI is performing its original mission: to design ground-breaking spacecraft systems. Finally these designs are making it to the market with AAAI's keen commercial sense.

Quource [-5,-12]

Allegiance:	Independent
Type:	Frontier outdoor world
Government:	Policed by the local corporation
Imports:	medicines, salves, luxury goods, heavy plastics, metal alloys, military fuel, computers, robots
Exports:	Fruit & veg, animal skins, live animals, air processors
Illegal goods:	Battle weapons, nerve gas
Distance:	8.842 AU upon hyperspace arrival

The first thing you notice when arriving at the Molotov Starport on Topaz are the vast forests on the outskirts of town. The temperate 17 degree climate seems to be ideal for the famous Molotov Pine to flourish. 'Uneventful' would be the best way to describe Molotov — the LITE factory being the only landmark to observe in the town. The towns folk always seem a little wary of strangers, but you will be looked after well enough.

Reorte [-3,-5]

Allegiance:	Independent
Type:	Mining and some ore refinement
Government:	Policed by the local corporations
Imports:	Water, liquid oxygen, fruit & veg, synthetic meat, industrial parts
Exports:	Metal alloys, minerals
Illegal goods:	None

Reorte is famous as being the original headquarters of Faulcon DeLacy, back when it was just Faulcon Manspace. Since the merger with of Faulcon Manspace with DeLacy ShipWorks and the new company's subsequent move to Sol, and the bankruptcy of Raddlett and Rayburn (manufacturers of the Mamba), the system is now little visited.

Riedquat [-3,-6]

Allegiance:	Independent
Type:	Frontier System
Government:	None (Anarchy)
Imports:	Hydrogen fuel, hand weapons, computers, farm machinery, robots
Exports:	Grain, animal meat, narcotics, animal skins
Illegal goods:	None
Distance:	8.56 AU upon hyperspace arrival

Orbiting the system's lone planet 'Waterloo', La Soeur du Dan Ham boasts not only the best beer (probably) in the galaxy, but also the best opportunity for you to hear the many tales of adventure from battle weary bounty hunters. If you want to up your Elite rating, if you want to earn money from bounty kills and most importantly if you want a good, cold, wet, beer, Riedquat is the place for you. A 4MW laser would be useful as well — accounts of naive unarmed commanders entering the system only to be confronted by 25 pirates are not exaggerated. Be careful.

Rigel [92,6]

Rigel is a supergiant star.

Sofagre [-2,5]

Allegiance:	Alliance, joined 3237
Type:	Industrial
Government:	Alliance Democracy
Population:	183,500
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star.



This system is a mining system, and has been since colonisation in 3096. There has never been much of note here, apart from vast arrays of mining machines anchored to the inner planets. Mineral content is not spectacular, but is profitable enough to keep mining corporations in the system. There is some limited manufacturing industry.

No planets are suitable for terraformation (Lawrence's Mine is warm enough, but is far too small). The star itself was moderately interesting for a short spell between 3240 and 3260 where it began showing the characteristics of a flare star, but this activity has since abated.

Sohoa [0,-4]

Allegiance:	Empire
Type:	Imperial Industrial and Mining Colony
Government:	Imperial Colonial Rule
Imports:	Fruit & veg, animal meat
Exports:	Synthetic meat, slaves, heavy plastics, metal alloys, industrial parts, hand weapons, computers
Illegal goods:	Nerve gas
Distance:	10.71 AU upon hyperspace arrival

Sohoa seems to be one of the most busy Imperial Navy bases. There are always a lot of delivery missions to this system from neighbouring Facece. A commander who chooses to serve the Emperor will find that he can progress quickly through the initial ranks without leaving sector [0,-4].

Soholia [-1,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	787,500
Policing:	Minimal — piracy common
Tech:	Most equipment types available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star.



Soholia is best known for the devastating outbreak of a fever, known everywhere as Soholian Fever since that episode. The system never quite recovered from the outbreak which first occurred in January 3250. The best efforts of ships from surrounding systems to bring medicines to the stricken population significantly reduced the devastation that would have otherwise been caused. By the end of the series of outbreaks, the population had dropped to a third of its original size - mainly because people fled the system. Soholia has never been a popular place to go since then.

If it wasn't for Soholian fever, the system would be hardly known. Home to many manufacturing plants and mines, it is otherwise a fairly normal industrialized system. Originally populated in 3180, business flourished in the mineral-rich system until the first outbreak of Soholian fever.

Sol [0,0]

Allegiance:	Federation
Type:	Historic Federal Capital. Administration and Tourism
Government:	Federal Democracy
Imports:	Computers, farm machinery
Exports:	Liquor, luxury goods
Illegal goods:	Narcotics, animal skins, live animals, slaves, hand weapons, battle weapons, nerve gas, radioactives
Distance:	9.47 AU upon hyperspace arrival

This is the system where it all started! Sol is, of course, the birthplace of humanity, and is now famous as the capital of the Federation. Commanders with military drives should note that radioactives are illegal here, so they should 'accidentally' jettison all of their radioactives immediately after hyperspacing into the system. There are a lot of delivery missions available here. Mars High is usually the port of choice for Federal Military Commanders.

Spica [-4,-17]

Spica is an interesting system.

Tiliala [-4,-1]

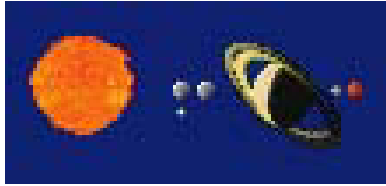
Allegiance:	Federation
Type:	Independent Dictatorship
Government:	Federal Democracy
Imports:	Robots
Exports:	Animal skins, live animals
Illegal goods:	Narcotics, slaves, battle weapons

There is a civil war brewing on the planet of Valhala in this system. The ruling Vahallian Democratic Peace Party, led by the dictator Augustus Checkin, is under threat from the rebel Valhallian Liberation Army led by the Rast family.

Unusually, although it is an independent dictatorship, it is also a Federal Democracy at the same time, offering Federal Military missions.

Tisoze [-2,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	125,050
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star.



You might have heard the phrase “I had to go to Timbuktoo and back...” when someone complains that they had to go far too long a distance to do or get something. As a practical joke, the first Administrator of Tisoze decided to call the new (at the time) orbital station ‘Timbuktoo simply because Tisoze was so far from anywhere. This was back in 3010.

Of course, many nearby systems are now populated, so Timbuktoo is no longer particularly far from the rest of populated space. However, the system was the unseemly place for a serious meeting of an Alliance fleet carrier and INRA. Fortunately, when the ship *Bell* of the Alliance Joint Navy met an INRA wing during the 3270’s, no shots were fired. The incident did spark a serious diplomatic incident between the Alliance and the Federation/Empire cabal. The whole incident turned out to be a storm in a teacup, and relations were normalised very quickly. Unfortunately, the owners of the particular INRA wing didn’t take kindly to it being taken prisoner by the AJN *Bell*.

The system is now mainly an industrial complex. The most notable corporation is Bendix, a spacecraft guidance and control system manufacturer. This company recently won a contract to supply control systems for 40 percent of the Alliance Joint Navy fleet.

Titican [-2,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	985,500
Policing:	Good, but deep space piracy still exists
Tech:	Most equipment types available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Main sequence, type M, red star with fairly feeble output — considered a red dwarf.



Titican is a well-industrialised system. It is notable for being the home of Vosper Thornecroft shipyards, who build many of the larger space-faring vessels. Vospers employ nearly quarter of the system's population, and have a massive orbital city where custom large ships are assembled. The Alliance Joint Navy is a regular customer of this shipyard, and the hulls for many of the newer large ships are constructed here.

Other industries in this system are vital to the Alliance's economy, with many products being exported to Federation and Imperial worlds as well as traded within the Alliance. Mining is still relatively important here, with many useful minerals being extracted from the rocky planets in this system.

Uszaa [-3,-5]

Allegiance:	Independent
Type:	Some small scale mining operations
Government:	None (Anarchy)
Imports:	Water, liquid oxygen, fruit & veg
Exports:	Minerals

Recently established Corporate System near to Lave. Home to the up-and-coming Bee-Team Corporation. Heavy Mining of the Copovium Mineral takes place on both habited planets, Coopers Claim and Popovs World, both named after the systems discoverers. Although often listed as an anarchy, this is merely due to the age of most sector maps.

Veliaze [-1,3]

Allegiance:	Alliance, joined 3262
Type:	Industrial
Government:	Alliance Democracy
Population:	970,000
Policing:	Minimal — starports only
Tech:	Basic equipment only
Illegal goods:	None
Physical:	Fairly small main sequence type K orange star, suitable for terraforming.



Veliaze is a fairly small main sequence type K orange star, fusing hydrogen to helium in its core. Its spectral type is compatible with terrestrial-like life forms, and the planet New Africa was easily terraformed during the latter part of the 29th Century. The orbital distance of New Africa gives it a temperate climate, averaging 22 Celcius.

The Veliaze system has a turbulent history which has only settled in recent times. The system was originally colonized by a small number of people from three different mining corporations from the 2500's onwards. The corporations decided during the 2800's to terraform Veliaze 1 (which later became known as

New Africa) so that larger numbers of miners could be accommodated much more easily.

The terraformation was very successful, since New Africa was an almost perfect candidate. Within 50 years, life was teeming all over the planet, and the ecosystem was stable. However, even before this, the rot began to set in. A series of increasingly bitter industrial actions began when the mining corporations began trying to replace the workers with slaves. Law and order collapsed, and the miner's unions soon began fighting amongst each other. After a brief civil war, the system fell into a state of anarchy, attractive only to frontier traders, pirates and bounty hunters. A few corporations managed to set up shop, mainly trading in goods that were illegal in adjacent systems. This situation remained, and Veliaze became a 'stable anarchy' — a system where although law and order was scant, conditions were good enough that several hundred thousand residents decided to remain.

This was shattered quite suddenly on the 26th March, 3261 when an Imperial war fleet hyperspaced in without warning and rapidly seized control from the local population. Once the Imperial fleet departed, Emperor Hengist Duval, always on the lookout for a new system to become part of the Empire, left a puppet government in charge. Much to his Imperial annoyance, the puppet government wasn't quite as loyal as he had hoped, and the Veliaze government formally requested Alliance membership in May 3262.

Veliaze has never been a particularly rich system. Its fortunes have slowly improved, but its main industry is now tourism and some trade. The system still makes a good bounty hunting ground as the police are somewhat overstretched, and rely on bounty hunters to mop up pirates further away from the starports.

Customs Somewhat reflective of its origins as firstly a mining colony then an anarchy, the Veliaze authorities have never bothered with trifling issues such as having a customs and excise department. Therefore, all goods are legal in this system.

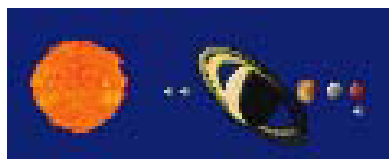
Vequess [0,-4]

Allegiance:	Empire
Type:	Imperial Industrial and Mining Colony
Government:	Imperial Colonial Rule
Imports:	Grain, fruit & veg, animal meat
Exports:	Narcotics, slaves, heavy plastics, metal alloys, industrial parts, computers, air processors
Illegal goods:	Nerve gas
Distance:	8.88 AU upon hyperspace arrival

Vequess seems to be one of the most busy Imperial Navy bases, as there are always a lot of delivery missions to this system from neighbouring Facece.

Vequex [-1,5]

Allegiance:	Alliance, joined 3247
Type:	Mining
Government:	Alliance Democracy
Population:	101,350
Policing:	Average — piracy relatively common
Tech:	Basic equipment only
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, flare star with unusually predictable flare sequence



It is surprising that this system is inhabited at all. In fact, the only industry is mining. If it was just the miners, the system population would be less than 10,000. A large proportion of the population is in fact military in nature, this system being a prime training ground for Alliance Joint Navy cadets. The other large slice of the population is from the Braben Research Institute, based at a massive orbital city, orbiting the star at 0.4 AU. There are a number of oddities about this system (the best known being the regularity of the flare star), and active research continues into many of the phenomena that have been observed all over the system.

Zeiocan [-1,5]

Allegiance:	Alliance, founding member
Type:	Industrial
Government:	Alliance Democracy
Population:	925,000
Policing:	Average — piracy relatively common
Tech:	Most equipment types available
Illegal goods:	Narcotics, live animals, nerve gas, slaves, battle weapons
Physical:	Type M, main sequence, red star. Cold inner planets.



Zeiocan 2, now New Wicca, was a good terraformation candidate and was terraformed in 2950, when the system was colonized. It is quite surprising that despite the fertility of New Wicca, this system is largely industrial. Agriculture is almost non-existent. Instead, the planet provides a pleasant and relatively inexpensive home for the people who work in the industries based there.

Apart from manufacturing, there is a reasonable tourist trade in the system. New Wicca has some interesting geography that tends to attract tourists. Volcanic activity is common in some regions, leading to spectacular (if somewhat dangerous) views which bring tourists from surrounding industrial planets.

5.7 Populated systems list

1°4774 [-1,1]	7 tech	Corporate state
-11°3759 [-1,-1]	2 tech	Anarchy
36 Ophiuchi [-2,-1]	10 tech	Corporate state
-40°9712 [-1,-2]	5 tech	Local corporations

61 Cygni [-1,1]	7 tech	Federation democracy
70 Ophiuchi [-2,0]	10 tech	Corporate state
82 Eridani [1,-1]	10 tech	Corporate state
Aaccess [3,-5]	2 tech	Anarchy
Aackio [1,13]	4 tech	Local corporations
Aandex [3,-13]	2 tech	Civil war
Aandti [0,-5]	5 tech	Local corporations
Aanve [6,-11]	5 tech	Local corporations
Aayay [4,3]	5 tech	Local corporations
Aaywa [3,12]	4 tech	Anarchy
Abeio [6,0]	2 tech	Anarchy
AC+79°3888 [0,2]	10 tech	Corporate state
Aceur [-10,8]	2 tech	Local corporations
Achenar [1,-4]	11 tech	Imperial rule
Ackacked [0,3]	5 tech	Local corporations
Ackaio [7,1]	2 tech	Anarchy
Ackandess [-4,-2]	2 tech	Anarchy
Ackandso [2,-2]	11 tech	Federation democracy
Ackcanphi [-4,-4]	10 tech	Martial law (disputed)
Ackcanti [1,-9]	4 tech	Dictatorship
Ackcefa [-5,6]	2 tech	Anarchy
Ackdati [0,-5]	9 tech	Imperial colony
Ackedze [0,-9]	2 tech	Anarchy
Ackexa [-3,3]	7 tech	Corporate state
Ackhoess [0,-6]	2 tech	Anarchy
Ackhoex [-1,3]	5 tech	Local corporations
Ackince [-7,3]	2 tech	Anarchy
Ackinio [-6,-6]	2 tech	Anarchy
Ackliaand [-2,-14]	3 tech	Local corporations
Ackphifa [7,-2]	2 tech	Anarchy
Ackqulia [0,6]	5 tech	Local corporations (hidden)
Acksoex [-6,-13]	2 tech	Anarchy
Acksoio [-7,-4]	2 tech	Anarchy
Acksozo [0,8]	2 tech	Anarchy
Ackwada [-5,-3]	3 tech	Corporate state
Ackwaze [-1,6]	12 tech	Alliance democracy
Ackzece [1,-5]	12 tech	Imperial colony
Ackzeess [7,-7]	2 tech	Anarchy
Ackzeex [6,2]	5 tech	Local corporations
Ackzeio [2,-14]	3 tech	Anarchy
Adaex [8,-5]	2 tech	Anarchy
Aedess [-5,3]	2 tech	Anarchy
Aenze [3,-6]	6 tech	Anarchy (no police)
Aethphi [-2,-14]	4 tech	Civil war
Aexeth [0,-5]	9 tech	Imperial colony
Aioce [-5,2]	5 tech	Local corporations
Alioth [0,4]	11 tech	Alliance democracy
Alkaid [-4,10]	9 tech	Communist
Alpha Centauri [0,0]	3 tech	Federation colony
Altair [-2,1]	12 tech	Federation democracy
Anacketh [0,-5]	10 tech	Imperial colony
Anave [3,0]	2 tech	Anarchy
Anayed [-5,-3]	2 tech	Anarchy

Anayeth [-1,-4]	10 tech	Imperial colony
Anayol [-2,5]	12 tech	Alliance democracy
Andackio [-9,1]	5 tech	Anarchy (no police)
Andackur [-7,1]	2 tech	Anarchy (hidden)
Andain [6,6]	2 tech	Anarchy
Andancan [-2,-4]	2 tech	Anarchy
Andandand [0,-14]	4 tech	Local corporations
Andaze [-3,4]	5 tech	Local corporations
Andcana [7,6]	9 tech	Local corporations
Andceeth [-5,2]	4 tech	Martial law (disputed)
Andcefa [2,-3]	11 tech	Imperial colony
Andenla [-5,-1]	5 tech	Local corporations
Andexa [4,-6]	2 tech	Anarchy
Andfaho [1,-9]	2 tech	Anarchy
Andhoex [5,-5]	2 tech	Anarchy
Andlaeth [-1,-10]	12 tech	Democracy
Andqueth [-7,4]	4 tech	Religious state
Andsoce [11,5]	8 tech	Anarchy
Andsool [4,-7]	4 tech	Anarchy (no police)
Andsoze [5,-4]	2 tech	Anarchy
Andwafa [-2,3]	7 tech	Corporate state
Andwaze [-1,-6]	5 tech	Local corporations
Andzeho [4,9]	10 tech	Corporate state
Anenwa [1,8]	2 tech	Anarchy
Anethphi [-7,-6]	10 tech	Local barons
Anlaol [1,-6]	11 tech	Imperial rule
Anlave [0,3]	11 tech	Federation democracy
Anphiex [2,-2]	5 tech	Local corporations
Anquphi [-3,-10]	11 tech	Democracy
Anquze [8,-8]	4 tech	Local corporations
Anurur [-6,-6]	2 tech	Anarchy
Anwafa [6,-7]	2 tech	Anarchy
Aphifa [2,4]	2 tech	Anarchy
Arayess [4,-7]	5 tech	Dictatorship (interdicted)
Arayfa [4,7]	2 tech	Anarchy
Arcana [1,-7]	2 tech	Anarchy
Arcefa [5,5]	2 tech	Anarchy
Arcturus [-2,0]	11 tech	Federation democracy
Arethlia [-4,8]	2 tech	Anarchy
Arexack [-1,-5]	11 tech	Corporate state
Arexex [-1,6]	12 tech	Alliance democracy
Arinack [-5,-1]	12 tech	Corporate state
Armice [-1,-5]	5 tech	Local corporations
Arquce [-2,-3]	5 tech	Local corporations
Artiess [-4,1]	5 tech	Local corporations
Arwaack [3,-9]	5 tech	Civil war
Arzewa [9,4]	2 tech	Anarchy
Aurce [8,3]	2 tech	Anarchy
Aveed [3,0]	7 tech	Corporate state
Aveho [-8,-2]	2 tech	Anarchy
Awalia [-7,-6]	2 tech	Anarchy
Ayace [6,-15]	1 tech	Dictatorship (interdicted)
Ayacka [5,-9]	3 tech	Local barons
Ayackan [9,14]	5 tech	Corporate state

Ayafa [4,3]	5 tech	Local corporations
Ayaness [-1,-4]	5 tech	Local corporations
Ayanex [-2,5]	12 tech	Alliance democracy
Ayara [4,-8]	2 tech	Anarchy
Ayarin [-8,4]	4 tech	Civil war
Ayarlia [3,1]	7 tech	Corporate state
Ayaze [5,-6]	6 tech	Corporate state
Ayceve [-7,-7]	2 tech	Anarchy
Aydaed [6,6]	7 tech	Religious state
Aydaso [7,-3]	7 tech	Democracy
Ayessqu [-1,5]	12 tech	Alliance democracy
Ayethiti [-3,-1]	5 tech	Democracy
Ayface [-9,-4]	2 tech	Anarchy
Ayfati [1,-5]	12 tech	Imperial colony
Ayhofa [-11,3]	6 tech	Local corporations
Aymiai [1,4]	11 tech	Federation democracy
Aymifa [2,-5]	11 tech	Imperial rule
Ayolex [-6,9]	3 tech	Democracy
Ayolfa [5,1]	8 tech	Democracy
Ayqgre [-6,-6]	12 tech	Civil war
Ayurqu [5,-9]	5 tech	Civil war
Ayurso [4,0]	5 tech	Civil war
Azea [7,-9]	4 tech	Anarchy
Barnard's Star [-1,0]	10 tech	Federation colony
BD 946 [-1,2]	7 tech	Corporate state
BD+43°4305 [-1,2]	5 tech	Local corporations
Beandce [0,-9]	9 tech	Democracy
Beaned [8,-2]	4 tech	Civil war
Beanso [9,-11]	1 tech	Dictatorship
Beayce [-9,8]	4 tech	Anarchy
Beayio [-8,-1]	2 tech	Anarchy
Bebece [-8,-11]	3 tech	Federation democracy
Becanin [3,0]	5 tech	Local corporations
Bedaho [-4,-2]	8 tech	Federation democracy
Bedaio [10,1]	4 tech	Local corporations
Beexack [-4,-1]	2 tech	Anarchy
Befaqu [-2,8]	4 tech	Dictatorship (interdicted)
Begrece [-5,-8]	2 tech	Anarchy
Begreze [-6,1]	5 tech	Local corporations
Behoex [-5,-1]	2 tech	Anarchy
Behoqu [2,-4]	10 tech	Imperial colony
Beinin [-2,-8]	9 tech	Civil war
Belaho [-7,-5]	2 tech	Anarchy
Bequan [6,6]	2 tech	Anarchy
Bequlia [7,-3]	2 tech	Anarchy
Besoex [3,0]	8 tech	Corporate state
Beta Hydri [0,-2]	11 tech	Federation democracy
Betila [6,-2]	2 tech	Anarchy
Beuress [0,-5]	2 tech	Anarchy
Beurex [-1,4]	5 tech	Local corporations (hidden)
Canacked [5,-4]	5 tech	Local corporations
Canarbe [-6,-9]	12 tech	Federation democracy

Canayce [2,-6]	2 tech	Anarchy
Canayfa [-3,4]	5 tech	Local corporations
Canayze [-2,-5]	5 tech	Local corporations
Candaess [2,-4]	11 tech	Imperial rule
Canenex [7,-6]	2 tech	Anarchy
Canesslia [2,4]	7 tech	Corporate state
Canetha [-4,0]	5 tech	Local corporations
Canfati [2,-9]	8 tech	Imperial colony
Cangrelia [-9,2]	2 tech	Anarchy
Canhocan [-10,-5]	9 tech	Corporate state
Canioay [0,7]	2 tech	Anarchy
Canlada [-7,0]	4 tech	Imperial colony
Canlaen [-9,5]	4 tech	Local corporations
Canolfa [8,-3]	2 tech	Anarchy
Canolol [3,-10]	5 tech	Federation democracy
Canopus [6,-6]	2 tech	Anarchy
Canphigre [-3,-4]	5 tech	Local corporations
Canquce [-6,2]	2 tech	Anarchy
Capella [4,4]	5 tech	Local corporations
CD-37°15492 [0,0]	10 tech	Corporate state
CD-44°11909 [-1,-1]	2 tech	Anarchy
CD-46°11540 [-1,-1]	7 tech	Corporate state
CD-49°13515 [-1,-1]	5 tech	Local corporations
Ceaess [-6,2]	2 tech	Anarchy
Ceance [4,-12]	4 tech	Anarchy
Ceandan [9,-1]	2 tech	Anarchy
Cebece [-4,-4]	2 tech	Anarchy
Cebeze [-5,5]	8 tech	Dictatorship
Ceedgre [6,1]	2 tech	Anarchy
Ceedho [4,8]	1 tech	Abandoned
Ceessze [-7,0]	2 tech	Anarchy
Ceessze [3,-4]	2 tech	Anarchy
Cegreeth [-1,-3]	12 tech	Imperial colony
Cemiess [-2,-2]	12 tech	Imperial rule
Cemilia [-3,9]	2 tech	Anarchy
Cephiol [1,-5]	9 tech	Imperial colony
Cesoa [-6,6]	2 tech	Anarchy
Cesoho [-5,-3]	5 tech	Local corporations
Cetifa [-4,3]	5 tech	Local corporations
Cetilia [4,-5]	2 tech	Anarchy
Cewaeth [-2,-2]	2 tech	Anarchy
Cewalia [5,6]	4 tech	Local corporations
Cezephi [-2,-10]	3 tech	Federation democracy
Daaan [7,3]	2 tech	Anarchy
Daanwa [5,6]	2 tech	Anarchy
Daarce [-6,1]	2 tech	Anarchy
Daarze [-7,10]	4 tech	Local corporations
Daayze [-9,4]	2 tech	Anarchy
Daceex [1,4]	5 tech	Local corporations
Dadaex [5,0]	2 tech	Anarchy
Dagrefa [8,3]	2 tech	Anarchy
Dainay [2,3]	7 tech	Corporate state
Dainfa [3,-6]	5 tech	Local corporations

Daioack [0,-6]	2 tech	Anarchy
Datiack [-4,-2]	2 tech	Anarchy
Dauran [3,9]	2 tech	Anarchy
Daurlia [4,0]	7 tech	Corporate state
Dawaze [10,-8]	5 tech	Anarchy
Delta Pavonis [-1,-2]	8 tech	Federation democracy
Diso [-3,-6]	6 tech	Democracy
Edandwa [5,4]	5 tech	Local corporations
Edara [-4,2]	7 tech	Corporate state
Edarho [-3,-7]	2 tech	Anarchy
Edbela [5,-7]	8 tech	Federation democracy
Edcanan [7,1]	2 tech	Anarchy
Edcanze [-6,6]	2 tech	Anarchy
Edenwa [9,-2]	2 tech	Anarchy
Edethex [3,-3]	8 tech	Federation democracy
Edgreen [-6,4]	2 tech	Anarchy
Edhoar [2,12]	4 tech	Anarchy
Edhoeth [-4,-3]	12 tech	Democracy (disputed)
Edlaand [-5,11]	3 tech	Local corporations
Edlabe [-4,2]	5 tech	Local corporations
Edliaio [6,2]	2 tech	Anarchy
Edliaze [2,-2]	7 tech	Corporate state
Edmize [-5,-4]	5 tech	Local corporations
Edphice [-6,-1]	2 tech	Anarchy
Edphize [-7,8]	11 tech	Local corporations
Edsoze [-9,2]	2 tech	Anarchy
Edurce [2,-9]	5 tech	Local corporations
Edwaso [-3,-13]	2 tech	Federation democracy
Enaned [-4,-8]	4 tech	Anarchy
Enaness [-5,1]	10 tech	Communist
Enayand [-3,4]	5 tech	Local corporations
Enaycan [-1,-14]	1 tech	Anarchy
Enayex [6,-2]	5 tech	Imperial colony
Encea [-2,2]	10 tech	Corporate state
Endaio [-10,2]	3 tech	Local corporations
Enedlia [1,5]	5 tech	Local corporations
Enethze [-3,3]	5 tech	Local corporations
Enexay [-1,8]	3 tech	Anarchy
Enexex [2,2]	5 tech	Local corporations
Enexio [1,11]	6 tech	Civil war
Enexur [-7,0]	2 tech	Anarchy
Enfaay [-5,14]	1 tech	Anarchy
Enfacan [-3,-4]	5 tech	Local corporations
Enfaze [-3,-4]	5 tech	Local corporations
Enioar [-3,-4]	10 tech	Civil war
Enqufa [3,6]	2 tech	Anarchy
Epsilon Eridani [1,0]	12 tech	Corporate state
Epsilon Indi [-1,-1]	11 tech	Federation democracy
Essaa [1,-5]	9 tech	Imperial colony
Esscangree [-4,2]	2 tech	Anarchy
Essedio [1,-14]	2 tech	Anarchy
Essedze [-1,4]	5 tech	Local corporations
Essethan [3,7]	2 tech	Anarchy

Essethlia [4,-2]	7 tech	Corporate state
Essfafa [7,3]	7 tech	Democracy
Esslaio [8,-3]	8 tech	Civil war
Esstiin [5,1]	2 tech	Anarchy
Essvece [-7,1]	2 tech	Anarchy
Essvefa [3,-8]	2 tech	Anarchy
Esswaex [4,1]	5 tech	Local corporations
Eta Cassiopeia [0,2]	6 tech	Federation democracy (mil. base)
Ethaylia [0,8]	2 tech	Anarchy
Ethceda [12,6]	12 tech	Local corporations
Ethceio [1,4]	5 tech	Local corporations
Ethenbe [-8,-6]	12 tech	Dictatorship (interdicted)
Ethessce [6,12]	4 tech	Anarchy
Ethgreeth [-3,5]	12 tech	Alliance democracy
Ethgreze [1,4]	5 tech	Local corporations
Ethhoack [-5,-1]	5 tech	Local corporations
Ethioa [5,-7]	2 tech	Anarchy
Ethlaess [-7,1]	2 tech	Anarchy
Ethliaess [1,-7]	2 tech	Anarchy
Ethsoess [3,7]	5 tech	Federation democracy
Ethtiqu [3,-9]	2 tech	Anarchy
Ethwafa [1,11]	3 tech	Local corporations
Ethwain [-3,5]	12 tech	Alliance democracy
Ethwaze [2,2]	7 tech	Corporate state
Ethzefa [3,-4]	5 tech	Local corporations
Exackcan [-7,0]	2 tech	Anarchy
Exandgre [-1,-6]	2 tech	Anarchy
Exbefa [5,0]	5 tech	Local corporations
Exbeur [-3,4]	4 tech	Federation colony
Exedgre [-1,-9]	2 tech	Anarchy
Exenfa [6,-2]	2 tech	Anarchy
Exfaso [4,-6]	2 tech	Anarchy
Exgrean [11,3]	5 tech	Civil war
Exhoed [2,4]	8 tech	Dictatorship
Exinack [-6,4]	2 tech	Anarchy
Exinfa [-5,4]	5 tech	Local corporations
Exioce [-1,-3]	10 tech	Imperial rule
Exiool [2,-4]	10 tech	Imperial colony
Exliaed [5,-7]	2 tech	Anarchy
Exliagre [4,5]	2 tech	Anarchy
Exmiio [8,-2]	2 tech	Anarchy
Exphiay [7,-6]	7 tech	Federation democracy
Exphiwa [6,3]	5 tech	Local corporations
Exqugre [-4,2]	7 tech	Anarchy (no police)
Exquho [-6,-2]	5 tech	Local corporations
Extila [-4,-1]	8 tech	Local barons
Exurho [-2,-8]	2 tech	Anarchy
Exwaess [5,1]	5 tech	Local corporations
Faandfa [6,-1]	2 tech	Anarchy
Faarso [0,7]	2 tech	Anarchy
Faayze [-2,7]	2 tech	Anarchy
Fabean [-8,-1]	2 tech	Anarchy
Facanbe [-6,-11]	7 tech	Corporate state

Facece [0,-4]	12 tech	Imperial rule (mil. base)
Faceze [-1,5]	12 tech	Alliance democracy
Faeda [-5,5]	2 tech	Anarchy
Faedho [-4,-4]	5 tech	Local corporations
Faened [4,-5]	5 tech	Local corporations
Faessla [-11,-6]	7 tech	Federation democracy
Faexess [-3,1]	5 tech	Local corporations
Faexze [-6,-1]	5 tech	Local corporations
Fahogre [-2,-7]	2 tech	Anarchy
Fainlia [-2,8]	2 tech	Anarchy
Falaay [6,6]	2 tech	Anarchy
Fawaol [2,-3]	9 tech	Imperial colony
Fomalhaut [-1,0]	11 tech	Federation democracy
Gateway [-1,4]	12 tech	Alliance democracy
Giclas 158-27 [0,1]	5 tech	Local corporations
Greandio [4,3]	2 tech	Anarchy
Grearwa [6,5]	2 tech	Anarchy
Greexio [-8,-2]	4 tech	Corporate state
Grefaed [-2,-7]	2 tech	Anarchy
Gregreack [-3,0]	5 tech	Local corporations
Gregreed [1,4]	2 tech	Anarchy
Greliain [4,1]	2 tech	Anarchy
Gremiess [5,12]	6 tech	Anarchy
Gretiwa [2,11]	3 tech	Federation democracy
Greveze [7,-9]	4 tech	Local corporations
Grewaze [-8,3]	2 tech	Anarchy
Groombridge 34 [0,1]	10 tech	Corporate state
Hoacked [-6,-1]	2 tech	Anarchy
Hoan [-10,0]	4 tech	Local corporations
Hoario [4,5]	2 tech	Anarchy
Hoarla [-1,-5]	8 tech	Imperial colony
Hobeex [-3,4]	2 tech	Anarchy
Hocanla [2,-12]	6 tech	Federation democracy
Hoena [-1,-5]	5 tech	Local corporations
Hoenin [-1,5]	12 tech	Alliance democracy
Hoethfa [-7,4]	2 tech	Anarchy
Hofala [-3,1]	2 tech	Anarchy
Hofaze [4,-1]	5 tech	Local corporations
Hoincan [8,-10]	7 tech	Anarchy (no police)
Hoiowa [7,6]	2 tech	Anarchy
Hoioze [5,-3]	2 tech	Anarchy
Holala [-7,1]	6 tech	Local barons
Holiacan [-3,5]	12 tech	Alliance democracy
Hotice [-3,-2]	2 tech	Local corporations
Hounze [-3,5]	12 tech	Alliance democracy
Hource [-2,-4]	5 tech	Local corporations
Inaphi [-10,0]	3 tech	Local corporations
Inceex [4,0]	5 tech	Local corporations
Incela [-5,2]	5 tech	Local corporations
Indaol [-1,6]	12 tech	Alliance democracy
Inena [3,-6]	11 tech	Dictatorship

Inethi [8,-3]	2 tech	Anarchy
Ingreho [1,4]	5 tech	Local corporations
Inioen [-6,3]	6 tech	Imperial colony
Inlalia [4,-7]	2 tech	Anarchy
Inliaa [-6,4]	2 tech	Anarchy
Inmiho [-9,1]	2 tech	Anarchy
Ioarack [-4,-3]	2 tech	Anarchy
Iobeti [1,-10]	5 tech	Religious state
Iodaio [-2,-8]	2 tech	Anarchy
Ioenze [-4,3]	5 tech	Local corporations
Ioethfa [4,2]	5 tech	Local corporations
Ioexho [-10,4]	4 tech	Anarchy (no police)
Iohoay [3,0]	7 tech	Corporate state
Ioliaa [2,-6]	5 tech	Local corporations
Iooack [-6,-1]	2 tech	Anarchy
Ioollia [5,-3]	5 tech	Local corporations
Ioququ [3,-4]	11 tech	Imperial rule
Ioveso [0,7]	4 tech	Religious state
Krüger 60 [-1,2]	10 tech	Corporate state
Laandbe [3,2]	2 tech	Anarchy
Laaran [9,1]	2 tech	Anarchy
Lacaille 9352 [-1,0]	5 tech	Local corporations
Lacanness [-3,-4]	2 tech	Anarchy
Laceso [-10,-5]	4 tech	Local barons
Laedgre [2,-2]	2 tech	Anarchy
Laedla [-4,1]	4 tech	Imperial colony
Laenbe [1,4]	2 tech	Anarchy
Laenho [-8,-4]	2 tech	Anarchy
Laessfa [2,8]	2 tech	Anarchy
Laethbe [4,1]	2 tech	Anarchy
Lainla [-6,3]	8 tech	Democracy
Laiobe [4,5]	5 tech	Democracy
Laiogre [4,-4]	2 tech	Anarchy
Lalande 21185 [0,0]	7 tech	Corporate state
Lalande 25372 [0,0]	10 tech	Corporate state
Laliagre [-4,4]	2 tech	Anarchy
Lamice [-5,0]	5 tech	Local corporations
Lasoay [4,1]	7 tech	Corporate state
Lasofa [5,-8]	2 tech	Anarchy
Latila [3,-10]	7 tech	Local corporations
Lave [-3,-6]	7 tech	Dictatorship
Laveess [11,6]	4 tech	Local barons
Lawacan [-1,6]	12 tech	Alliance democracy
Lawaho [-5,-1]	5 tech	Local corporations
Leesti [-3,-6]	6 tech	Corporate state
Liaanack [-10,-6]	8 tech	Anarchy
Liabeay [-3,6]	5 tech	Local corporations
Liabece [3,-13]	4 tech	Federation democracy
Liabefa [-2,-3]	7 tech	Corporate state
Liabeti [0,-8]	7 tech	Communist
Liabeze [2,-4]	10 tech	Imperial colony
Liacewa [8,5]	2 tech	Anarchy

Liadaio [-6,-3]	2 tech	Anarchy
Liaedin [4,3]	8 tech	Martial law (disputed)
Liaesso [9,-9]	1 tech	Abandoned
Liaethfa [0,7]	2 tech	Anarchy
Liaface [-6,4]	2 tech	Anarchy
Liafati [7,8]	1 tech	Dictatorship (interdicted)
Lialaa [0,-6]	5 tech	Local corporations
Lialiaed [6,2]	7 tech	Democracy
Liamiess [1,-6]	2 tech	Anarchy
Liamifa [8,-1]	2 tech	Anarchy
Lialolze [-5,-6]	2 tech	Anarchy
Liaququ [2,-2]	9 tech	Democracy
Liaveen [5,1]	2 tech	Anarchy
LP 658-2 [2,0]	2 tech	Anarchy
Luyten 1159-16 [1,1]	10 tech	Corporate state
Luyten 205-128 [-1,-2]	7 tech	Corporate state
Luyten 347-14 [-2,-1]	5 tech	Local corporations
Luyten 674-15 [2,-1]	10 tech	Corporate state
Luyten 789-6 [-1,0]	7 tech	Corporate state
Luyten 97-12 [1,-2]	10 tech	Corporate state
van Maanen's Star [0,1]	10 tech	Religious state (permit required)
Merak [3,5]	5 tech	Local corporations
Miackio [-5,-4]	2 tech	Anarchy
Miandce [4,-14]	1 tech	Local corporations
Miandfa [2,4]	5 tech	Local corporations
Miandin [-1,6]	12 tech	Alliance democracy
Miargre [-8,-3]	7 tech	Imperial colony
Miarin [5,0]	2 tech	Anarchy
Mibea [2,-8]	2 tech	Anarchy
Miceess [-5,4]	2 tech	Anarchy
Miesscan [6,1]	2 tech	Anarchy
Mihofa [-4,1]	7 tech	Corporate state
Miinfa [9,-2]	6 tech	Corporate state
Miolgre [2,-5]	12 tech	Imperial colony
Miolze [2,-3]	5 tech	Local corporations
Miphiay [-1,4]	7 tech	Corporate state
Miphifa [0,-5]	9 tech	Imperial colony
Miphize [1,-14]	1 tech	Anarchy
Olackbe [7,-2]	2 tech	Anarchy
Olaygre [4,-3]	2 tech	Anarchy
Olbea [-6,2]	5 tech	Local corporations
Olcanze [1,-3]	12 tech	Imperial rule
Oledan [8,4]	9 tech	Local barons
Olexay [7,-2]	2 tech	Anarchy
Olexfa [8,-11]	5 tech	Democracy
Olgrea [-3,5]	11 tech	Alliance democracy
Olhoack [-7,0]	4 tech	Federation colony
Ollafa [-4,-1]	7 tech	Corporate state
Olphifa [-1,8]	2 tech	Anarchy
Olquack [-1,-6]	2 tech	Anarchy
Olurfa [7,0]	2 tech	Anarchy
Olwaio [-7,-2]	6 tech	Corporate state

Omicron Eridani [2,0]	7 tech	Corporate state
Oervere [-3,-6]	5 tech	Local barons
Orrere [-3,-5]	2 tech	Anarchy
Phekda [2,5]	9 tech	Anarchy (no police)
Phiaack [2,-12]	5 tech	Federation democracy
Phiagre [1,-3]	9 tech	Corporate state
Phiandgre [-3,1]	2 tech	Anarchy
Phiarin [2,4]	2 tech	Anarchy
Phiessay [6,-1]	5 tech	Local corporations
Phiesswa [5,8]	2 tech	Anarchy
Phiexin [8,-2]	5 tech	Corporate state
Phigreex [6,-1]	2 tech	Anarchy
Phiince [-4,-1]	5 tech	Local corporations
Phiinex [-6,11]	4 tech	Local corporations
Phisoan [7,5]	2 tech	Anarchy
Phitiwa [9,2]	2 tech	Anarchy
Pollux [5,2]	5 tech	Local corporations
Quana [-5,3]	5 tech	Local corporations
Quayack [-5,2]	5 tech	Local corporations
Qubeso [3,-6]	5 tech	Local corporations
Qubewa [4,5]	5 tech	Local corporations
Qudala [-9,-10]	9 tech	Anarchy
Quedeth [-5,-3]	2 tech	Anarchy
Quedso [4,-7]	2 tech	Anarchy
Quenve [-1,6]	12 tech	Alliance democracy
Quessve [-4,-4]	2 tech	Anarchy
Quexce [-2,-2]	7 tech	Corporate state
Quhoce [7,6]	2 tech	Anarchy
Quhoeth [2,-13]	3 tech	Corporate state
Quhoio [8,-3]	2 tech	Anarchy
Quince [-1,-5]	8 tech	Imperial rule
Quiness [-8,6]	3 tech	Federation colony
Quinho [-8,0]	2 tech	Anarchy
Quinqu [-1,6]	7 tech	Local corporations
Qulaan [6,2]	5 tech	Local corporations
Quliaze [9,4]	2 tech	Anarchy
Quphieth [-3,0]	6 tech	Local barons
Ququso [1,4]	7 tech	Corporate state
Ququve [1,4]	4 tech	Federation democracy
Quurce [-5,-12]	3 tech	Local corporations
Quurol [-3,8]	5 tech	Anarchy
Quurze [-6,-3]	5 tech	Local corporations
Quzece [-3,0]	7 tech	Corporate state
Reorte [-3,-5]	5 tech	Local corporations
Riedquat [-3,-6]	6 tech	Anarchy (no police)
Ross 128 [0,0]	2 tech	Federation colony (permit required)
Ross 154 [-1,0]	6 tech	Federation colony
Ross 248 [0,1]	10 tech	Corporate state
Ross 47 [2,1]	7 tech	Corporate state
Ross 986 [2,1]	12 tech	Federation democracy

Sigma Draconis [-1,2]	5 tech	Local corporations
Sirius [1,0]	10 tech	Corporate state
Sobeeth [9,-9]	5 tech	Federation democracy
Sodagre [0,3]	5 tech	Local corporations
Soenti [1,10]	4 tech	Anarchy
Sofagre [-2,5]	12 tech	Alliance democracy
Sohoa [0,-4]	10 tech	Imperial colony
Soholia [-1,5]	11 tech	Alliance democracy
Sol [0,0]	11 tech	Federation democracy
Sophian [2,8]	2 tech	Anarchy
Sophilia [3,-1]	7 tech	Corporate state
Soveze [3,-4]	10 tech	Imperial colony
Sowace [-4,2]	7 tech	Local barons
Sowaio [-3,-7]	5 tech	Dictatorship
Tau Ceti [0,0]	11 tech	Federation democracy
Tiacan [3,-4]	10 tech	Imperial rule
Tiafa [-3,0]	7 tech	Corporate state
Tianand [2,13]	4 tech	Dictatorship
Tianda [3,-9]	2 tech	Anarchy
Tiandan [1,9]	2 tech	Anarchy
Tiaycan [3,0]	2 tech	Anarchy
Tiaze [-2,-9]	2 tech	Anarchy
Tiessgre [3,-3]	2 tech	Anarchy
Tiethay [0,3]	7 tech	Corporate state
Tiethla [2,-11]	9 tech	Democracy
Tihoack [-4,-4]	2 tech	Anarchy
Tilacan [7,-12]	6 tech	Local corporations
Tiliala [-4,-1]	10 tech	Federation democracy
Tiolce [-8,2]	3 tech	Federation colony
Tionisla [-2,-6]	2 tech	Anarchy
Tisola [0,-5]	2 tech	Anarchy
Tisoze [-2,5]	12 tech	Alliance democracy
Titican [-2,5]	11 tech	Alliance democracy
Tivea [-1,-3]	7 tech	Corporate state
Tiwafa [5,6]	2 tech	Anarchy
Urackze [4,0]	5 tech	Local corporations
Urاندack [-6,2]	5 tech	Martial law (disputed)
Urاندol [1,-5]	10 tech	Imperial colony
Uranze [-8,-1]	2 tech	Anarchy
Urayan [7,7]	2 tech	Anarchy
Uraylia [8,-2]	2 tech	Anarchy
Urcanda [-8,4]	2 tech	Anarchy
Urcaned [-5,-9]	4 tech	Local corporations
Urcece [-4,1]	5 tech	Local corporations
Uressack [-5,1]	5 tech	Local corporations
Urethgre [-4,0]	7 tech	Corporate state
Urfaa [5,7]	2 tech	Abandoned
Urinan [11,1]	6 tech	Federation democracy
Urلاay [3,-2]	7 tech	Corporate state
Urلاfa [3,2]	5 tech	Local corporations
Urلاze [4,-7]	2 tech	Anarchy
Uroland [-6,-3]	8 tech	Corporate state

Urquio [6,6]	2 tech	Anarchy
Ursowa [-6,-6]	2 tech	Anarchy
Urtiex [5,-3]	2 tech	Anarchy
Urtilia [-8,-4]	2 tech	Anarchy
Urtize [3,-4]	10 tech	Imperial colony
Ururso [4,-8]	2 tech	Anarchy
Uszaa [-3,-5]	2 tech	Anarchy
van Maanen's Star [0,1]	10 tech	Religious state (permit required)
Vecelia [5,1]	5 tech	Local corporations
Veedze [6,-5]	2 tech	Anarchy
Vega [-3,2]	10 tech	Federation democracy
Vegreio [-8,0]	2 tech	Anarchy
Vehoze [-11,2]	7 tech	Local corporations
Veinho [3,-8]	2 tech	Anarchy
Veliaze [-2,3]	8 tech	Anarchy (no police)
Vequess [0,-4]	10 tech	Imperial colony
Vequex [-1,5]	12 tech	Alliance democracy
Vetifa [6,2]	5 tech	Federation democracy
Vevece [0,-8]	2 tech	Anarchy
Vewalia [1,7]	2 tech	Anarchy
Waarze [4,-4]	2 tech	Anarchy
Waayol [4,-5]	3 tech	Federation democracy
Wadain [7,1]	2 tech	Anarchy
Waedphi [-8,-1]	6 tech	Federation democracy
Wafaan [5,-5]	2 tech	Anarchy
Wafaphi [-6,-3]	9 tech	Federation democracy
Wainfa [2,7]	2 tech	Anarchy
Wamien [-5,-3]	2 tech	Anarchy
Waoio [-3,-12]	3 tech	Anarchy
Wasoze [-1,-8]	2 tech	Anarchy
Watibe [-4,4]	2 tech	Anarchy
Wawewa [9,0]	2 tech	Anarchy
Wawagre [6,2]	2 tech	Anarchy
Wolf 294 [2,1]	5 tech	Local corporations
Wolf 359 [0,0]	10 tech	Corporate state
Wolf 630 [-2,-1]	9 tech	Federation democracy
YZ Canis Minoris [2,0]	10 tech	Communist (permit required)
Zaonce [-2,-6]	11 tech	Corporate state
Zeackack [-1,-3]	2 tech	Anarchy
Zeaex [3,-2]	12 tech	Martial law (disputed)
Zeafa [5,-10]	4 tech	Anarchy
Zeaiio [2,7]	2 tech	Anarchy
Zeancan [2,-2]	2 tech	Anarchy
Zeandcan [-2,2]	2 tech	Anarchy
Zeandin [2,2]	2 tech	Anarchy
Zeanla [3,-11]	4 tech	Anarchy
Zeanlia [2,2]	10 tech	Corporate state
Zearla [-5,1]	5 tech	Local barons
Zeawa [3,8]	2 tech	Anarchy
Zeayze [9,-7]	6 tech	Anarchy (no police)

Zeceack [-5,1]	2 tech	Anarchy
Zeceand [6,10]	1 tech	Abandoned
Zedacan [2,2]	2 tech	Anarchy
Zeeness [-4,-3]	2 tech	Anarchy
Zeesce [1,-6]	2 tech	Anarchy
Zeesda [-6,-6]	8 tech	Corporate state
Zeesla [-1,-3]	2 tech	Anarchy
Zeesze [0,3]	8 tech	Federation democracy
Zeiocan [-1,5]	12 tech	Alliance democracy
Zelada [1,4]	9 tech	Anarchy
Zelagre [1,-5]	9 tech	Imperial colony
Zemien [-3,-9]	5 tech	Corporate state
Zemila [-4,0]	2 tech	Anarchy
Zephiess [0,-7]	2 tech	Anarchy
Zevean [5,5]	2 tech	Anarchy
Zevear [4,14]	5 tech	Local corporations
Zevelia [6,-4]	2 tech	Anarchy

Chapter 6

Equipment and Ships

Please note: all prices quoted herein are correct at the time of going to press. We are not responsible, however, for the ravages of inflation and will not, under any circumstances, provide a refund.

You must admit, you got one hell of a good deal when you decided to go with a New Rossyth deal, but even we have room for improvement. That's why there are so many Shipyards around the galaxy, many with the New Rossyth Shipyard seal of approval, who are ready to tailor your ship to your every need, adding all kinds of new and exciting features, to take your ship from being of the most sleek and special things to ever hit space to something uniquely you. This chapter deals with all the things that the shipyards have to offer you, what you can expect to pay for it, the kind of room you will need on your ship for it, and how to use it. What more could you ask for?

How to do it Upgrading your ship is probably one of the easiest things you could ever do — at least, it's a damn sight easier than trying to convince the police that you didn't just jettison 30 tonnes of waste fuel right outside planet orbit! All you need to do is dock at any registered starbase or planet dock, and call up the shipyard menu (F6) on your Communications Panel (F4) to see what's on offer.



Figure 53: Upgrading your ship is easy



Figure 54: Remember: a regular service keeps your ship in shape

Bear in mind that the systems closest to the government central and/or densely populated systems will have the most to offer, and even more so if they should happen to be high technology worlds. You will also find that the price of the deals will change depending on where you are in the galaxy, so be prepared to shop around.

As so many of today's 'Bargain Offers' state, the price we show here is in no way an indication of the actual sale price of the item either now, or at any point in past or future. Happy hunting!

Space priorities The Saker Mk III is quite a small craft, with no real need for large amounts of cargo space, since it is used almost purely for combat roles. Even larger ships can get cramped very quickly, as you need larger hyperdrives and weapons to get them around the system. Bear in mind that if you've stocked up to the hilt with weapons and shields and have no space left for cargo, you won't be able to trade. This is fine if you make all your income by taking on assassinations, less fine if you're still shuttling computers from Gateway to make a living. Before upgrading your ship, take a look through the suggestions below, and the shopping list in the rest of the chapter. Most importantly note the sizes of the items on sale relative to the amount of space you have left. This will help you make the most of the space within your craft, and you should be able to tailor the ship to your own needs with the minimum of fuss.

6.1 Servicing and maintenance

Like any electrical or mechanical equipment, the only way to guarantee a long life is regular servicing and maintenance. We at New Rossyth Shipyard know as well as anyone else the rigours that your average ship has to go through when trotting around the galaxy, which is why your brand new Saker Fighter comes with absolutely no guarantee whatsoever. Ships can break down within a matter of months, and we know that you will understand the astronomical costs that would be involved in trying to honour all of these service contracts. As a result, our company motto has been changed from 'It's A Huge Universe, But You're Never Alone With New Rossyth Shipyards' to 'It's A Huge Universe — Good Luck Out There'.



Figure 55: A slow, bulky Lanner drifts into the cross-hairs

The first thing to take good care of is your hyperdrive itself, as this can mean the difference between life and death. A poorly looked after Hyperdrive, even one with military classification, is more likely to mis-jump and leave you stranded between systems with no chance of rescue. Other major things to check out are the hull structure, the main engine support beams, the dust intakes and the computer cabling that leaves the engine housing. A fault in any of these can mean complete system collapse, and in space, no-one can hear your underpants.

So, we recommend you get your engine and craft serviced at least once every six months. It's an expensive affair, but extremely necessary if you are to make any success of your travels between the stars. We recommend the complete service each time, but if you can't afford it, always make sure that you have at least your engine looked over.

Hull structure is something you should pay special attention to. Whenever your hull is breached, get it fixed immediately, even selling off some of your optional extras to raise the cash. A damaged hull makes you a lot more vulnerable to attack, and means you have less chance of surviving the next direct laser blast.

Oil and clean your landing undercarriage once a month, and ensure that the scanner systems and other radio projection antennae are straight and clean. If possible, strip down your ship once every three months, and clean as much of the space dust residue off the craft as you can without actually scratching any of your shielding plates.

Bear these tips in mind, and your craft should last you just about as long as you do. True, if you don't service the parts, the craft will still only last as long as you do — but that will be a far shorter time span. You have been warned.

6.2 A bounty-hunter's equipment list

I'll briefly go over the equipment options you have with these ships, and a little advice on a good configuration.

Shield Generators It's pretty obvious what they are. However, one thing you always have to remember when equipping a ship is that you have a tradeoff. The most vital tradeoff is between lasers and shield generators (we'll get to that

later). Basically, you need at least two on board on the Viper series, and at least 5 for the Cobra, Harris and Asp. The basic minimum is to be able to take a couple of missile hits without being killed. Many pirates carry NN500's now, which not even a naval ECM can counter. If you don't have enough shields to eat at least a couple of these, combateering is basically suicide. Don't forget that sometimes an attacker might launch a missile when they are so close to your ship, you don't have time to activate the ECM.

Energy booster unit This is used to speed the shield recharge rate. In my opinion, it's a vital piece of equipment since it really boosts the recharge rate greatly. If you've taken many hits and are low on shield energy, having the Energy Booster Unit reduces the amount of time you have to take evasive action and not get shot.

Radar Mapper This is absolutely essential if you want to bounty hunt, since you'll only get credited when the Radar Mapper telemetry data has been sent to the nearest Elite Federation receiver. If you get paid for bounty kills, it also helps pay for the repairs to the hull should the enemy manage a hull strike.

Naval ECM System An ECM can save you a lot of pain, and it really is worth getting the naval version. Most ships carry missiles that are immune from a standard ECM, but only a few carry missiles that are immune to the naval version. Every combat ship should have one!

Laser Cooling Booster This is needed depending on the laser you have. The pulse lasers and the 1MW beam laser doesn't really require it, but the 4MW beam laser most certainly does since it quickly overheats without the cooler, almost to the point of being useless without the cooler.

Tractor Beam Cargo Scoop This can aid the income from bounty hunting. Personally, I never bother with one because I never have enough space left in the hull to pick up cargo, but it can be practical with the Asp. However, you have to trade off shield generators with space to pick up loose cargo and metal wreckage.

Miscellaneous Essential Equipment There are some things that all ships should have: namely a scanner, navigation computer and autopilot. The scanner is vital for combat operations, but you can get away without the other two. However they make it much easier to get around a system! Unfortunately, the Combat Computer seems pretty useless: I did fit one but found it easier to just use the scanner and Mk I eyeball.

Lasers You need to really evaluate your mission when deciding which laser to equip with. The 1MW pulse is ineffective for virtually all combat missions, so we won't discuss it here. For small combat ships you have a basic choice: 1MW beam or 5MW pulse? I tend to prefer the beam laser since it will actually work against an enemy much quicker. The cool-down time between shots when using the 5MW pulse can make defending yourself from small and hard to hit ships a



Figure 56: Collecting bounty on a pirate Lanner

frustrating or fatal experience. The ability to ‘home’ with a 1MW beam laser has made me favour it over the theoretically more powerful pulse laser.

If you have a ship like a Harris, Cobra or an Asp on up, you have to ask yourself: What is the right size of beam laser? Generally you shouldn’t go too big because you’ll trade off too many shield generators in the process. This can leave you dead very quickly if you are attacked by multiple medium sized ships. My general rule of thumb is always carry at least one size smaller laser than you can actually fit. This way you’ll get plenty of shield generators in.

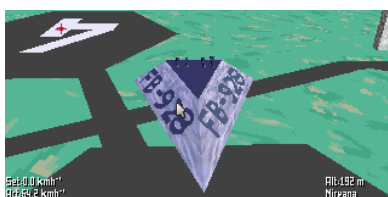
Personally, I prefer the 1MW beam laser in the Harris, Cobra or Asp. If you’re skilled at shooting, this works out very well since it gives you space for a lot of shield generators and you don’t need a laser cooling booster. This can be very helpful when attacked by multiple craft. With the Courier, I would go for a 4MW beam laser since you need something that’ll melt the enemy down faster because with the slow turn speed of the Courier, you won’t be able to keep them in your sights for long.

6.3 A bounty-hunter’s ship list

First, you must realise that any spacecraft out there is fifty thousand compromises flying in close formation. Therefore there are always tradeoffs: you can have a fast ship, but weak armament, or a large ship decked out like a battle-cruiser but which is so slow the only kills you make are when an incompetent pirate crashes into your hull and explodes all over your shields. There is another simple principle to remember in ship selection: ships with a thin cross section are ten times harder to hit than a bloated cargo ship.

Secondly, for a ship to be any use as a combat craft flown in dangerous systems, it must be large enough to hold not only some shield generators, but an ECM system and at the very least, enough fuel so that you can hyperspace out of trouble.

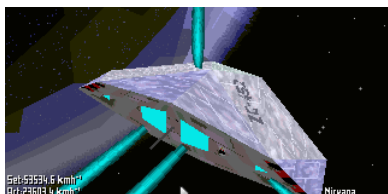
Remember this whenever selecting a ship or getting into battle. In ancient times, Sun Tzu, the famous Chinese general said “Invincibility lies in the defence, but the possibility of victory lies in the offense.”



ECM has been developed to combat the NN500 series missile), and has the speed required to stop combat from turning into dangerous ‘jousting’ matches. It can easily stay on the tail of nearly any other combat ship. The Viper Mk II is an incremental improvement on this craft, having 25g instead of 24g acceleration, plus two additional tonnes of hull space for fuel or equipment. My thoughts are to go with the Viper II if you are going to be using this class of ship, but don’t overlook the original Viper if that’s what you can get your hands on.



Harris. The Harris fighter is an ideal combat ship. It’s fast — a little quicker than the Cobra Mk III — and it’s big enough to get some serious shield generation. As with the Viper, to make the most of the ship, you need a military hyperdrive to free up space for equipment. The biggest difficulty with the Harris is that its hyperspace range is quite limited — it’s not big enough that you can fit a Class 3 Military drive and have plenty of space for cargo, and the Class 2 drive that is standard doesn’t really flip it across the galaxy with ease. To add to this, it is also slow through hyperspace. This means that if you want to carry out assassination missions you must attack your target before he gets to hyperspace, because you’ll arrive a day later than most ships.

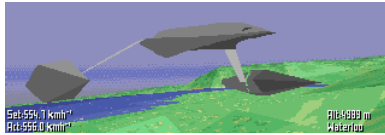


Cobra Mk III. This ship is one of my favourite combat craft. It can be decked out such that it becomes extremely tough, and taking on multiple attackers no longer becomes the near-death experience it was with a smaller ship. Despite its size, it still has the speed to perform intercepts, thus avoiding getting into a ‘joust’ that typically stacks the odds in the favour of a faster ship. I must admit I favour this ship mainly because of its classic design: the Harris does in reality have a slight edge over the Cobra.



Asp. The Asp really is the ultimate fighter, once fitted with a Class 3 military drive. It has space for a bigger gun and lots of shield generator space. It can out-accelerate both the Cobra III and the Harris. It has a very fine end-on profile making it hard to hit in a straight-in run. Once you have an Asp, you have a machine that can enter the most dangerous systems and stand a good chance of making it to your destination. It is still prudent to have enough fuel to hyperspace out of trouble (or a Martin-Baker Mk 86 Escape System), but

you'll probably not have to use either option in an Asp. There is a good reason why this ship is the choice of many bounty hunters — the combination of size and speed hit just the right balance.



Imperial Courier. Now here's a battleship! The Imperial Courier is probably the biggest you want to go for a fighter. It only really just scrapes in as a fighter due to its surprising turn of speed despite its size. I

personally prefer the Asp since virtually anything else you'll encounter will be much faster than the Courier, but there's no doubting that a well-loaded Courier has an iron arse. You just have to accept that fights will end up being a jousting match, and an attacker can get on your six and you'll not be able to do a thing about it since your turn rate isn't as quick as most combat ships out there. However, with the great deal of equipment you can pack on this ship, you can always make sure you have an 'out' for this kind of situation.

6.4 Ship comparison chart

There are a lot of ships to choose from, and lots of variables to look at. A trader wants a large cargo capacity, and a reasonable hyperspace range. A bounty-hunter wants an agile ship with enough cargo space to fit weapons and shield-generators. An assassin wants a very good hyperspace range and enough room for a hyperspace generator. And everyone wants a cheap ship!

Figure 57 should help. There is a lot of information packed into the graph. Here is how to read it:

Cargo capacity The ships to the right of the graph have greater cargo capacity; those to the left of the graph have little room. This number is the cargo capacity remaining, after the standard drive for that ship has been fitted.

Agility The ships to the top of the graph are agile; those to the bottom are sluggish. This number is the average of front and reverse thrusters, in Earth Gs.

Hyperspace range A red disc indicates large range (20+ light years) and correspondingly fast hyperspace travel. Green is lower range (10-15), and blue is terrible. These colours assume the standard drive class for that ship.

Maximum hyperspace range The colour of the rim around each circle shows the maximum hyperspace range, if you've fitted the biggest hyperdrive the ship can possibly fit. For if you need to get somewhere *really* fast. Red here is 60+ light years; green is 20-40.

Cost The size of each circle represents the cost for that ship. Clearly, it's the large trading ships that cost the most money.

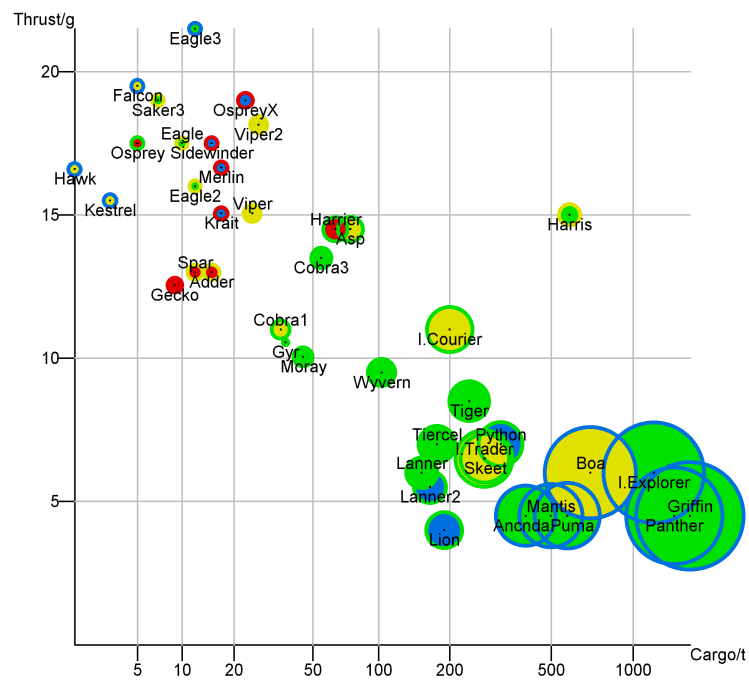


Figure 57: Ship comparison. Size of circle indicates cost. Colour of blob indicates hyperspace range with standard engines (blue=bad, green=okay, yellow=better, red=best). Colour of rim indicates hyperspace range with best engines.

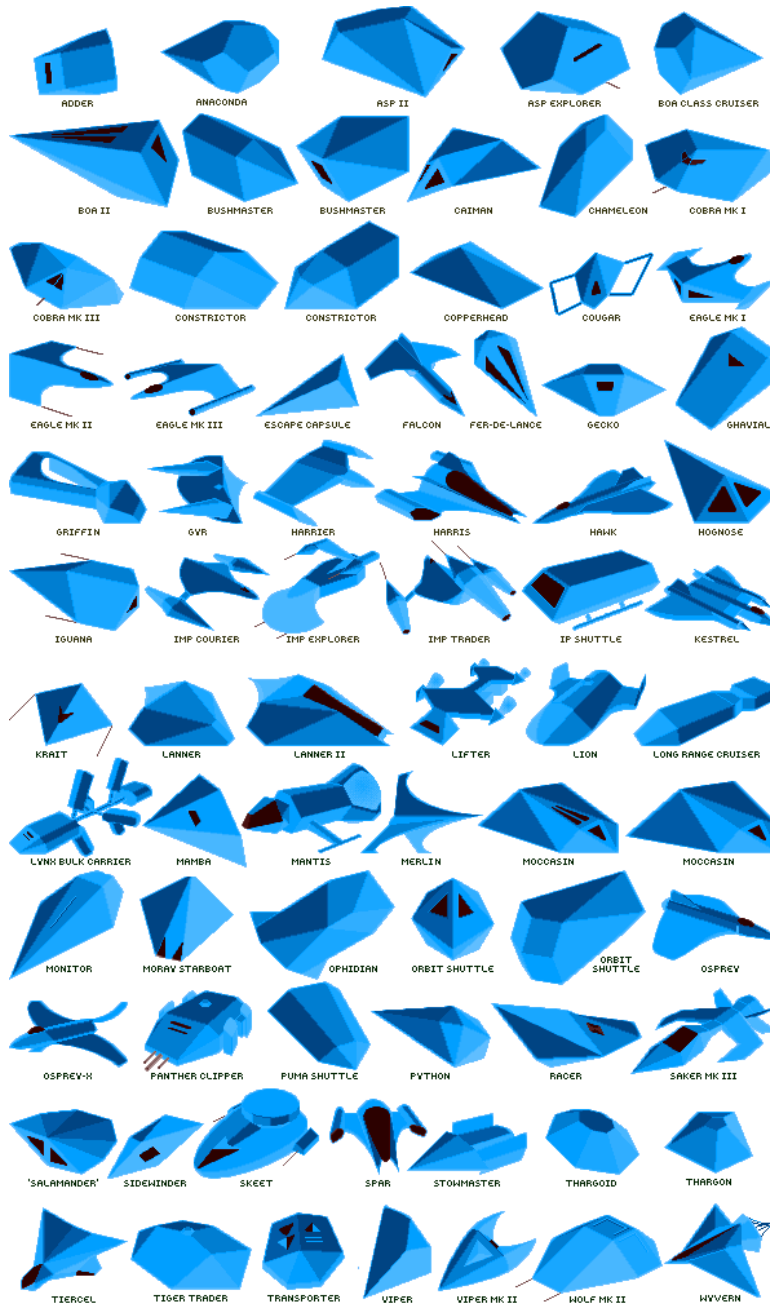


Table 12: Ship identification chart. Not all ships shown are in active use

Conclusions: The *Harris* stands out at being exceptionally agile and cheap for its cargo capacity, but with relatively poor hyperspace capability. The *Boa* is the fastest trader. Anything smaller than a *Viper* doesn't have enough room for all the combat equipment you'll need. For a larger cargo capacity, maybe to fit lots of shield generators, the *Harrier* and *Asp* look good — and they're also fairly fast.

6.5 Non-offensive equipment list

Shipyard upgrades can generally be categorised in two ways — there are the non-combat based items which are there purely to extend the usefulness of your ship in its various roles, and then you have the offensive equipment, that which is used purely for the purpose of combat. First of all we'll take a look at all the non-offensive equipment, and all those little things that are there just to make your life in the space lanes that little bit easier.

Atmospheric Shielding

180 credits / 1t / 3 tech

What is it? There are no ships today that are sold without shielding of some description or other, but to make the outside of your craft totally complete, you need Atmospheric Shielding. This is a single tonne set of heat-proof panels that are attached to the hull of your ship and absorb all the friction buffeting that goes on when you try to enter a planet's atmosphere at high speed. If you try to enter an atmosphere without this kind of shielding, the skin of your hull will overheat very quickly indeed, and you'll find your craft breaking up before you get beneath even the highest cloud layer.

Benefits There is really nothing on a planet surface for the space faring Elite cadet that orbital space stations cannot provide, so there is really no actual benefit to entering a planet's atmosphere. That said, there is a very relaxing time to be had from drifting around the coastlines of a continent, and sometimes you will be called upon by the military to perform duties at ground level so at some stage you will be called upon to get hold of some. Our advice is, get some now.

How to use it When you buy Atmospheric Shielding it is fitted at the shipyard there and then, so you don't really need to do anything with it. The only way to 'use' Atmospheric Shielding is to enter a planet with an atmosphere!

Jade's thoughts While it has no use in combat, atmospheric shielding is, nonetheless, one of the more important upgrades you can fit. Once installed, it prevents your ship from burning up when you enter the atmosphere of a planet. While you could, in theory, do without ever going planetside (and therefore not needing to fit atmospheric shields), the more lucrative missions often involve landing on or flying close to a planet's surface.

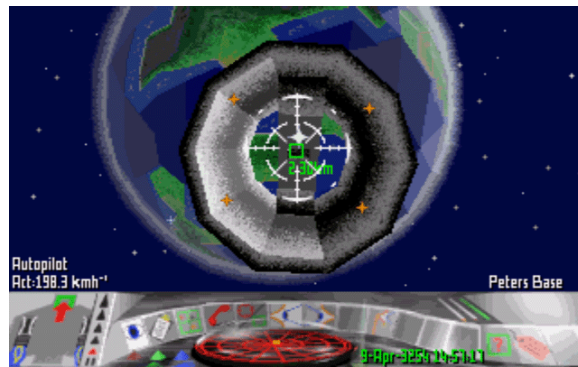


Figure 58: Life is simple with an Autopilot

Automatic Pilot

1,260 credits / 1t / 6 tech

What is it? As its name suggests, this is a computerised pilot, designed to take the tedium out of a pilot's work. It can be set to carry out a number of tasks, from finding it's way from one point in space to any other, right the way through to docking or landing on a planet. It is most commonly used with docking procedures, and as a result is a must for new pilots, or those who are tired of lining up with docking bay doors and then inching forward, waiting for the all clear.

Benefits Once you have one of these one tonne units, you'll wonder how you ever did without it. It can make your life as a pilot considerably more interesting, as you can leave it to get you from a hyperspace location to a docking port while you switch on the StarDreamer, only taking the controls at times of combat and other unusual situations. It very rarely makes mistakes too, so you needn't worry about those tricky planet docking manoeuvres you spent so long learning to do for your pilot's license. You couldn't find many more worthwhile things to buy.

How to use it The Automatic Pilot is an absolute doddle to program. All you need to do is tell it where you want to go, and it will figure out what it is you want it to do. If you select a starbase as your destination, it will know that you will want it to dock with it when you get there, and will do so accordingly. Unfortunately, due to a couple of flaws in the design, it will actually try to dock with whatever you select as a target, so make sure you have chosen a valid space port (not a mountain range, a desert or an ocean) when setting your Autopilot target.

To target: click on your chosen target in View or Orbital Map mode; or use the Navigation Target Control on the Navigation Console (T); or use your Navigation Computer (N).

To engage the autopilot: click on the Autopilot Activator on the Navigation Console (TAB). The Autopilot Activator blinks when the drive has been engaged.



Figure 59: Using a Nav Computer at Facece [0,-4]

To disengage the drive: click again on the Activator or click elsewhere on your screen.

Note: if your autopilot appears not to work, you either haven't got one or it has been damaged in combat.

Jade's thoughts Space, as you will realise, is big. Because of the nature of hyperspace, upon entering a system you will usually find yourself quite a distance from where you want to go. While it is entirely possible to fly all the way manually, this is pretty tedious at the best of times. What you need is 'George', your handy automatic pilot. The automatic pilot handles flying the ship for you, all you need to do is select a destination from the 3D system map, activate the autopilot and then kick in the stardreamer and relax. The only criticisms of the autopilot are that it can be a bit annoying trying to select a destination from the 3D system map, and that it is occasionally prone to the odd bad habit.

Complaints over the inconvenience of setting autopilot destinations resulted in the development of the Navigation Computer. It provides a friendly front-end to the autopilot system, by displaying a list of starports in the current system from which the pilot can select a destination.

Navigation Computer

162 credits / no space / 8 tech



What is it? Although you already have all the tools to set a full autopilot course to a starbase at your command, there are those people who say it could be even easier. New Rossyth Shipyards agree, which is why we have come up with the Navigation Computer — a new tool that makes light work of finding a starbase. The Computer will give you a full list of starports in your current system and you can target one directly from the list.

Benefits Time saving, more than anything else. Plus the fact that setting the Autopilot is now only a single click away from the main map screen, instead of

the minutes spent zooming in and out of a three dimensional map, and then rotating it until you find the base you want to go to.

How to use it (N) From View mode (F1), touch this panel and you will be presented with a list of cities in your current system. Clicking on this will not only set the site as your target, it will also activate your autopilot instantly.

Autorefueller Device

90 credits / 1t / 7 tech

What is it? As well as the main fuel tank in the cargo area of your ship, the main hyperdrive engine also has a fuel reserve, and when flying around a system — i.e. non-hyperspace flight — this is the fuel that gets used. When this fuel has run out, you will be given an ‘out of fuel’ message, and will have to manually refuel to restart the engine. An Automatic Refueller will keep the engine reserve topped up at all times, so that your StarDreamer sleep need never be interrupted by the engines cutting out.

Benefits This is a bit of a luxury device, it must be said. Although it only takes up one tonne of space on your ship, and costs less than a 100 credits in most space station shipyards, there isn’t a hell of a lot of benefit to it. Sure, it means that you won’t run out of fuel in the middle of docking, which can lead to some embarrassing incidents, but other than that it stops wasted fuel when refilling the engine through an over-zealous mouse operating finger.

How to use it Like most of the automatic devices offered by the shipyards, this doesn’t actually require any operating at all on the part of the pilot of the ship. It is fitted at the shipyard you buy it at, and as long as you keep it maintained every six months, you should never need to touch it again.

Cargo bay life support

540 credits / 1t / 2 tech

What is it? Due to the hideous expense in creating a synthetic living environment, most ships have very small living quarters. The rest of the craft is kept airless, to save engine power and money. As a result, you aren’t able to carry livestock of any description in the cargo hold of a ship. A Cargo Bay Life Support unit is complete environmental control for your cargo bay, giving oxygen, deodorisers, piped music, food, drink and just about everything else you could need to keep creatures alive, all in a single tonne for the measly price of 720 credits.

Benefits The only real benefit a purchase like this will give you is precisely the reason it was developed in the first place — it extends the range of cargo you are able to carry. Slaves and Livestock are both extremely profitable commodities to trade in, although both are actually outlawed in a great many systems, so be careful of where you carry them.

How to use it It won't interfere with the transportation of any other goods, or at least past the fact that your cargo hold is reduced in size somewhat. The Life Support system is only ever switched on when live stock is placed in the hold, and it runs off its own power system, so you can just forget it's there. Never try to transport livestock without one of these on board, as you will pay a huge price for the animals and have nothing to see on the other side but meat.

Energy booster unit

9,900 credits / 5t / 11 tech

What is it? Shields are electrical fields generated to cover the outside of a ship. When they are hit by anything, the energy field is weakened somewhat, and it can take some time for the shield generators to build up speed to regenerate the skin of the ship. An Energy Booster Unit is used in tandem with the shield generators to accelerate the recharge time, giving you that little bit of extra protection that can come in so handy in the heat of a battle. You'll need a spare 5 tonnes of cargo space to carry it, but you should find it an invaluable addition to your ship defence line.

Benefits If you are out to get your Elite license, you are going to have to get into some pretty hairy battles, and you'll need all the defence you can get in situations like that. Any extra form of defence will come in handy against multiple ship attacks, and an Energy Booster Unit will mean that you don't have to dodge enemy laser fire as much as you would have to without it. To see how well it works, watch the status level of your shields when you take a hit, and see just how quickly that level climbs back up with one of these on board.

How to use it Plug it in and switch it on. The Energy Booster Unit is constantly charging itself from the shield activity, thanks to a unique cyclic charging circuit, so once it's on, you can forget all about it. Because it's mounted on the outside of the ship, though, it can be one of the first things to get damaged when laser fire gets through, so keep an eye on it during battle situations.

Jade's thoughts This device greatly increases the recharge rate of your shields, so it takes less time for your shields to return to their maximum level. It is especially useful if you have a lot of shield generators. The unit can often mean that you survive longer in combat, and is probably a must buy for any serious combat pilot.

Escape capsule

18,000 credits / 5t / 8 tech



What is it? The last line of defence is retreat, as many generals have said time and time again, but when in deep space there is rarely anywhere to retreat to. So, for a breathtaking price of around 20,000 credits (give or take — some special offers are available), you can get your entire cockpit removed from your craft and replaced with an identical replica, which is actually a self power vehicle, capable of getting you across a system to the nearest starbase. The Escape Capsule is on a hair trigger, which is set off the moment the vital parts of a ship hull start to crack. The capsule is then automatically ejected from the ship, saving your life but unfortunately not your cargo.

Benefits Escape Capsules buy you insurance for your ship, as well as your life. In any other situation, a captain will go down with his ship, and destruction of your cabin usually means destruction of you. However, buy one of these little beauties, and not only do you get back to the space station unharmed, but you'll also find a new ship waiting for you when you get there. It will be the same model as the one you have just lost, but will have none of the upgrades you may have purchased, along with none of the cargo. Okay, so you lose some money, but you live to trade another day.

How to use it (X) The Escape Capsules are all fitted with firing triggers when fitted, and when the crucial moment of destruction comes, they are launched into space, away from the wreckage of your craft. Sometimes, however, they can get caught in the shrapnel of an exploding hyperdrive, and get blown away with it. To prevent that kind of situation, there is a manual release for the Capsule, which you can fire as soon as it looks like you aren't going to make it. This will get you away from the ship safely, and being as the enemy craft will continue to attack your old ship, you have a handy decoy and a little time to get out of the area as quickly as possible.

Note: The *Stowmaster* Escape capsule is currently in the design stages at New Rossyth Shipyards Research and Development site at Fortress Culloden. This takes the concept of the Escape Capsule one step further by providing greater control and offensive capabilities. In effect, the *Stowmaster* is a single-seater fighter — just what you need when the guys with the guns know that Escape Capsules can't fire back! Keep your eyes open for announcement of the *Stowmaster's* release onto the open market.

Jade's thoughts For when things are getting nasty, sometimes it's better to bail out. The escape capsule can be fired at any time, and also will automatically launch a split second before your ship explodes if you're unlucky enough to get blown away. The capsule can be flown towards the nearest starport, where it is exchanged for a new ship. Of course, if you're in a system with no starports, you're stuck — since the craft has no hyperdrive.

In the early days of the Elite Federation, life insurance policies (mandatory with the capsule) generally covered a replacement ship of identical specification, minus cargo and escape capsule. Nowadays, few insurance policies go this far, so you're likely to be given just a bog-standard Eagle Mk I. If your ship was a multi-million credit *Boa*, using the escape capsule is a very costly exercise.

Extra Passenger Cabin

1,350 credits / 5t / 1 tech

What is it? For most of your space bound life, you will travel alone, unless you are flying one of the larger cargo ships or battle cruisers that require more than one crew member to get around the galaxy. There is a lot of money to be made from running a taxi service, though, and to do that, you'll need to fit more passenger quarters to your craft. This you do in the form of Extra Passenger Cabins — self contained units that have bedding, seating, dining facilities, toilet facilities, and just about everything else you would find in a mid-priced hotel. This is where your passengers stay for the duration of the flight, so please ensure that you have a good range of in-flight dream-ware for them to enjoy.

Benefits Another trading arm. On every planet and space station there are people who want to go somewhere else, but don't have the money or the inclination to fly there themselves. You can run your own taxi service, and make a very handsome profit by finding enough people who want to go to the same location, and collecting top money from all of them. Depending on how good and reliable you are, you will find that people will pay you more and more for the same journey, because a trip in your craft guarantees them a safe trip. Be sure not to take any longer than a month getting to a destination, though, as people will get bored and start to complain. They may even refuse to pay.

How to use it Extra Passenger Cabins take 5 tonnes of cargo space each, and cost nearly 2000 credits. To make any real use of them, you'll need to have at least half a dozen, so be prepared to give up most of your trading room. After that, just make sure they are cleaned and serviced regularly, and they'll give you years of trouble free earning. Which is more than I can say for the kind of people who ride in them — but that's another story.

Jade's thoughts If you have a large ship, and you have the space, permanently fitting ten cabins should give to the space to take most parties. A word of advice — sometimes potential passengers may be being stalked by people who don't want them to reach their destination. They will pay more, which could make you very rich. You could also get very dead.

Hull auto-repair system

15,750 credits / 40t / 11 tech

What is it? On larger ships, the cost of repairing a hull once a shield has been breached can be absolutely astronomical. So, the only option, provided you have 40 tonnes of cargo space free, is to buy the Hull Auto Repair system. The workings of the system are a trade secret, so we can't actually tell you what is going on underneath the skin of the hull, but the small scratching sounds and the mechanical whirs have led many people to believe that the Hull Auto Repair System is really nothing more than a small army of pint sized robots armed with welding torches and soldering irons.

Benefits Cost, plain and simple. Even on a small ship, hulls cost a lot to repair, especially when you realise that you are paying by the square tonne. When you look at the size of the larger craft, you can imagine the kind of cost in repairing a quarter of the hull, say after a spectacular missile collision. The Hull Auto Repair system saves you money in the long run, and that's a reason to own it above any other.

How to use it Fit it, and keep it maintained. It is very slow, though, and you will find that you will still have to pop into a shipyard now and again to give it a hand at closing some of the larger holes you will get. Other than that, just let it run its course.

Jade's thoughts You'll only be able to fit this into the bigger ships, but these are where Auto-Repair System is most useful. If you're messing around in dangerous areas, or are doing anything else where you're likely to need expensive repairs, you should get one of these. The Auto-Repair System slowly reverses the effect of hull damage, and can completely repair your hull over a period of time. Although expensive at first, it soon pays for itself in repair savings. Your ship is also likely to last longer, and losing shields will not be as much of a problem.

Hyperspace cloud analyser

1,575 credits / 1t / 10 tech



What is it? If you've attempted a hyperspace jump before, you will know that you leave a cloud behind when you leave. This merely indicates a disturbance in the space/time continuum and is nothing to worry about. This cloud can be analysed, however, as it is also the opening to the wormhole you are travelling down. With a Hyperspace Cloud Analyser, you can check the exact time and date of arrival in the system the craft that has just hyperspaced is heading to.

Benefits This is a gadget best used when performing assassination missions. All too often when you attack an important craft, the first thing the pilot will do is hyperspace. In normal circumstances, this would spell failure for you, but with the Hyperspace Cloud Analyser you can find out where they have gone, and if you have a fast enough ship, get there before them and wait for them to arrive. If you're going to bump someone off, you might as well do it in style!

How to use it After having the Hyperspace Cloud Analyser fitted to your ship, you will be presented with a new icon on the control panel. When you find a hyperspace cloud, target it in the same way as you would an opposing craft. Now hit the Hyperspace Cloud Analyser (?) to find out where the ship was headed, and when they are going to arrive in the new system.

Jade's thoughts Whether you need this or not really depends on what you're doing for a living. This is probably the most useful thing an assassin can own, but traders are unlikely to ever need it. Fitting an analyser immediately boosts

the amount of info you can get on other pilots, since this device can tell you where a ship has hyperspaced to, and how heavy it was. For an assassin, this means that you can let your prey hyperspace, and know exactly where it's going, reducing the risk of you missing the kill. The only drawback is that the device can still be fooled by a forced misjump, so you could lose the target — but the relatively low cost and weight of the device far outweigh this problem. Go on, you know you want one!

Scanner

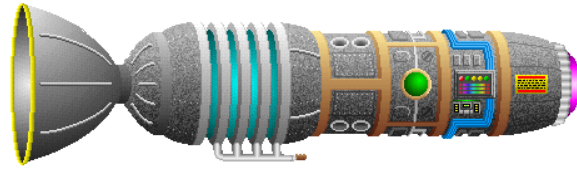
630 credits / 1t / 4 tech

What is it? The Scanner is the display generated by the three dimensional radar field that projects to a distance of up to 100 kilometres from your ship. It shows you the location of all other craft and objects within that range as small horizontal lines on the end of stalks. The colour of the lines gives you an indication of the size of the object, and the length of the stalk shows you whether or not the object is above or below your line of vision. This single tonne object is a vital addition to any cockpit, and without it you are without a real fighting chance when it comes to combat. Although the display is quite small, it is very readable, except immediately after an explosion, when all the cargo canisters ejected from a ship's cargo hold float freely in space. Our technicians are working on a filter for the radar, where it will only show objects above a certain size, but have been afraid of implementing it as it will mean easy cloaking for smaller ships.

Benefits Far too many to mention. Basically, without it you're lost. Look into the night sky, and you'll see that there is a hell of a lot of places to look. Imagine that sky completely surrounding you, and you'll see just how much use a radar is. And enter a combat situation without one, and you'll be lucky if you live to tell the tale.

How to use it The Scanner is one of the easiest things in the world to use. It all comes down to a bit of lateral thinking. The eight lines that cross the centre of the scanner lie along your current plane of vision, with the one pointing directly ahead of you indicating your actual line. The stalks extend from this line to give you an indication of the distance of the other objects, and the length of the stalk is their height or depth. Experiment with the scanner with you leave a space station by turning a random distance, and then orientate yourself to face the station with the scanner, and it will become second nature in no time at all.

Jade's thoughts The scanner is probably the most essential piece of equipment, since without one you're almost flying blind. When a scanner is installed, all craft within scanner range are displayed on it according to their position relative to your ship, giving you a 3D impression of the surrounding area. Using the scanner, you will know which way to face so you can see what ships are in your area. Modern scanners now feature colour coding according to the mass



Design:	Faulcon DeLacy Ltd	Weight:	80t
Production:	Rossyth Shipyard, Alioth	Fuel:	Hydrogen grade 3
Thrust:	420,000 lbs/ft ²	Rate:	16t / max jump
Length:	47.25m	Warranty:	1 year parts
Diameter:	7.30m		30 days labor

Figure 60: Class 4 Hyperdrive

of ships being displayed, so you can get an idea of how powerful opposing ships are.

Interplanetary drive

4,500 credits / 4t / 5 tech

What is it? The smallest and weakest drive you can get for your ship is the standard Interplanetary drive. It is a tiny 4 tonne unit with absolutely no hyperspace capabilities at all, only able to move you from planet to planet within a single system. Equivalent in power to the Class 1 Hyperdrive, it's ideal for fitting between a space station and a planet in search of the best trade prices, but nothing more.

Benefits None, really. It's very small, sure, but completely useless for the person who wants to get out and see the galaxy. If you've found a system that you want to make home, and give up your wandering days, then you might be tempted to fit one, but otherwise this is one option that everyone should ignore. New Rossyth Shipyard unreservedly apologues for even mentioning it.

Standard hyperdrive

Cost / space / tech — see Table 13 (page 184).

What is it? The most common propulsion system in the galaxy. All craft are powered by standard hyperdrives, which is why they are so commonly available, and so cheap. They run on standard hydrogen fuel, which can be bought just about anywhere, and come in a variety of different sizes and powers, to suit different kinds of ships. As a rule, the smaller the ship, the further the Hyperdrive can jump through hyperspace. However, the larger engines do take up rather more space than the smaller ships can provide, so oddly enough at the end of the day, regardless of the size of your ship, the best you can hope to get is around 15 light years in a single jump. Some people have claimed to be able to do 600, but they are obviously lying.

Table 13 on page 184 shows the weight and cost of each class of hyperdrive. Recall that the performance of a drive depends on the mass of the ship you're

Class 1 hyperdrive	10t	7,200 credits	5 tech
Class 2 hyperdrive	25t	13,500 credits	7 tech
Class 3 hyperdrive	45t	27,000 credits	9 tech
Class 4 hyperdrive	80t		10 tech
Class 5 hyperdrive	150t		12 tech
Class 6 hyperdrive	250t		12 tech
Class 7 hyperdrive	400t		12 tech
Class 8 hyperdrive	600t	*	12 tech
Class 1 military	6t	22,500 credits	11 tech
Class 2 military	12t	45,000 credits	11 tech
Class 3 military	24t		12 tech

* The class 8 hyperdrive is only available ready-fitted to larger ships.

Table 13: Hyperdrives

fitting to, so the table doesn't give a full comparison. For that, see Section 6.4 'Ship comparison' on page 171. The largest drive that can be bought on the open market is the Class 7 — the Class 8 is only available as part of a large ship.

All standard drives use hydrogen fuel to operate.

Benefits They are cheap, practical and reliable if serviced properly. Fuel is available everywhere you go at cheap prices, and if you can't get to a system to buy some, then you can always fit a fuel scoop to your craft and collect it in space. The only real drawback is their size, which has restricted so many smaller craft in the past. In particular, the weight increases sharply as range increases. There are currently seven popular sizes of Hyperdrive, but you can buy higher if you visit specialist shipyards.

Military hyperdrive

Cost / space / tech — see Table 13.

What is it? As is always the way, Military grade equipment is far superior to that of the civilian engineers. Military Hyperdrives are half the size of standard Hyperdrives, allowing smaller ship to jump much larger distances than ever before. All military ships are equipped with these, so if you are carrying out an assassination mission, it would be stupid trying to chase one through hyperspace with a standard hyperdrive.

As the name suggests, military drives were originally developed for use by the navies of the major powers. While military drives have similar performance to standard drives, they are much smaller. This allows you to fit longer range drives in small ships that would not be able to carry the equivalent standard drive. The weight and cost of military drives are shown in Table 13.

Military class 3 drives are technologically very advanced, and not many places stock them. They can be obtained, however, at Barnard's Star [-1,0],

Facece [0,-4] and Gateway [-1,4]. Also see Table 11 ‘Technology’ on page 123 for other places.

Benefits The size and range are really the only two benefits you can gain from one of these drives, and they have a lot of down sides to them. They are very expensive to run, for one thing, as they only run on military fuel, which costs a lot more than your basic hydrogen. Plus, military fuel creates waste when it’s used, and this waste must be disposed. This can only be done by trained technicians (fortunately, this service can be performed at all starports where radioactives are legal). Dumping of radioactives in space is a crime which the authorities treat very harshly. Also, there are only three classes of military hyperdrive currently available on the civilian market. New Rossyth Shipyard engineers are working day and night to produce a civilian version of the Mark 4 Military Hyperdrives. Keep your eyes peeled and read the journals for possible releases in the near future.

Note: The rumoured development of a prototype ‘Hyperdrive jammer’ by the covert research teams of the two military Powers is almost certainly scare-mongering propaganda.

Fuel Scoop

3,150 credits / 6t / 4 tech

What is it? All craft are fitted with an intake on the front of the ship. In most craft this is a useless bit of design that just looks nice, but a Fuel Scoop can be used to put this intake to good use. In essence it gathers hydrogen atoms from the places where it is most dense, and then converts it into fuel. This is a very dangerous way of collecting fuel, and should only really be tried by the desperate.

Benefits Free fuel, if you can pull off the trick of skimming the surface of a star. With a Cargo Scoop Conversion, however, it can become a lot, lot more. See the Cargo Scoop Conversion section for more information.

How to use it To collect fuel from the upper layers of a star, you have to either be tired of life or be the subject of a seriously large wager. Sun Diving is popular in some of the systems graced with multiple stars where the ‘Serial Star Crawl’ has become quite a popular pastime. If you’re doing it because you have to, it’s probably not quite as much fun. In case of emergency (i.e. if you run out of fuel in the middle of nowhere) here’s what to do: First fly to the star and enter the atmosphere of the star as you would if you were entering a planet. You will need Atmospheric Shielding if you are to pull this off successfully. Keeping your speed up, slowly descend towards the star until you are within a 30 kilometre altitude. The Fuel Scoop will now kick in automatically, and start collecting the hydrogen atoms. Once your tank is full, get out of there as quickly as possible.

Note: Fuel scoops can only be fitted on ships which have the appropriate mounting.

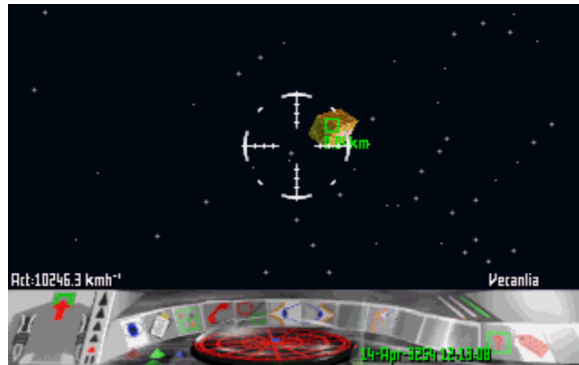


Figure 61: A Cargo Scoop Conversion allows you to pick up random space junk at will

Jade's thoughts Sometimes you may be unwilling or unable to buy fuel in a space station. Originally developed for use by explorers on long trips where there would be no space-stations to buy fuel from, fuel scoops allow you to scoop hydrogen fuel into your hold by flying into the atmosphere of a gas giant (assuming that there are some in your current system). It is also possible to scoop fuel from suns, but be warned that this is exceptionally dangerous. Despite the best efforts of scientists working for all sides, nobody has been able to design fuel scoops capable of scooping military fuel.

Cargo scoop conversion

3,600 credits / 2t / 5 tech

What is it? More of an adjustment than a new piece of kit, the Cargo Scoop Conversion takes your existing Fuel Scoop, if you have one, and drastically upgrades it. Once you have gone through this simple operation, not only will you be able to collect fuel from the atmosphere of planets, but you'll also be able to collect the cargo canisters left floating in space after you have destroyed an enemy craft, or the lumps of ore left drifting after you have blazed away at an asteroid with a mining laser. It is rumoured that some ships of Military (and NRS Specialised) design have a Tractor Beam fitted which locks onto objects floating in the immediate vicinity and drags them into the Cargo Scoop. This innovation, should it become commonplace, will dramatically improve the scope for small object retrieval.

Benefits Free cargo and money seems to be the order of the day with one of these. If you are going to plump for a Fuel Scoop, then we would recommend you get hold of one of these as soon as possible. Then you can go out and try piracy for yourself, destroying large freight ships and collecting their goods to be sold later. Chasing the canisters through space can also be an exciting exercise in ship control! You will have to have one of these if you fancy life as a miner, too.



Figure 62: An MB4 mining machine on the surface of Facece 13b [0,-4]

How to use it In the same way as you need to get close to the atmosphere of a star to collect fuel, you have to get very close to the item you are collecting before the Fuel Scoop will switch on. The best way to do this is to target the object you want to collect, and centre it on your view screen. Manual engine control is essential. Now move towards it slowly, keeping it in the centre of the screen until it is very close. Now quickly bank the nose so that the object drops slightly under the ship, and the fuel scoop should grab it. Be careful at this point, however, as a mis-aimed canister can damage your shields.

Jade's thoughts It didn't take long for people to realise that fuel wasn't the only thing that could be scooped in deep space. Due to the increasingly dangerous nature of space travel, there are often times when a pilot could come across cargo canisters floating around. The cargo scoop conversion modifies the fuel scoop so that it is capable of scooping up these cargo canisters and storing them in your hold.

The Federation are working on a 'tractor beam cargo scoop', to make it easier to direct objects into your cargo. Expected cost is around 8,5000 credits. This device is being designed to work even if you don't have a fuel scoop or cargo bay conversion.

MB4 Mining Machine

5,850 credits / 30t / 11 tech

What is it? There are two types of mining available to the star bound warrior. Asteroid mining and the more traditional planet based mining. Asteroid mining is performed quite simply with a mining laser and a fuel scoop, but ground based mining is a little bit trickier. For this, you'll need to get hold of a mining machine, and then find a planet which is rich enough in minerals to support mining. The mining machine can then be left on the planet surface for a month or two, where it will carry out its duties on your behalf, digging and refining the ore for when you return.



Figure 63: Mining installations screen

Benefits In the same way as asteroid mining, land mining is a way to make free money. Many of the barren planets — the ones that are yet to be colonised, are rich in ores and minerals, and a quick glance over some of the bulletin board systems will show you that there is a lot of money to be made by the guy with an inexhaustible supply. To really make a go of land mining, you'll need to set up quite a few mining machines, to generate the sort of numbers you need to make some real money, and it might take a couple of years before you even break even on the deal. Given that each machine takes up a massive 30 tonnes of cargo space when carried around, this is one career you are going to have to show some real dedication to.

How to use it Once you have your mining equipment on board, you will need to find a suitable planet to mine. Colonised planets are out of bounds, so you'll have to travel out to the frontier systems and beyond. There is little point trying to mine on the planets close to the centre of the colonised galaxy, as these will have already been drained dry by miners before you. Instead, you need to travel outward, in search of ores. Land on a planet in the same way you would a planet based dock (except you don't need to ask for clearance, obviously) and go to your Mining installations screen (F12) in Inventory mode (F2)

Here you are shown all the rigs you currently own, and their status. Click on the MB4 icon on the top left of the Battle Control Console to unload a machine to the surface, and you can now test the ground to see if it will be worth mining there. If it looks like you are going to be able to get 10 tonnes from the soil — the MB4 stock limit, then you can fly away from it and leave it to mine. (Keyboard shortcut: 'D')

When you want to find it again, check your Mining Installations screen to see which system you currently have it set in, and fly to that system. Once you are there, you can call up the Mining Installation screen again, and check the planet that the MB4 is on. To make life easier, all MB4s come supplied with a homing beacon which is tied into your ship's autopilot, so clicking on the button next to the installation you want to visit will set the mining rig as the autopilot target. You can now fly easily to the rig. Once there, empty the contents of the rig onto your ship, by clicking on the Load Rig icon, and you can then leave, or place the rig on the planet's surface again for another load if the ground can

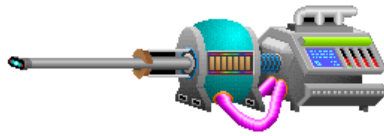


Figure 64: Beam laser

take it.

Jade's thoughts Although you can mine asteroids by chipping chunks off them with mining lasers, the MB4 allows you to set up your own mine on planetary bodies. When deployed on the surface, the MB4 analyses the crust for mineable seams. Sometimes you'll strike lucky and hit a seam of precious metals. Most of the time, you'll be more likely to be mining minerals. By now, most planets in the inhabited sectors of the galaxy have been mined out, but you can find better planets further away. Please note that it is illegal to mine an inhabited planet.

6.6 Weapons list

Now we come to the really important stuff — the items that will prolong your life span and keep you in the skies. These things stuff you really can't be without. As that great comedian D'Lango said, if you can't fit everything into your ship, then it's time to get a bigger ship.

Lasers Lasers are your main offensive weapon, especially so now when most ships can no longer be killed with a single missile. The range is vast, and every one has its own advantages and disadvantages. Generally, there are four factors involved when evaluating a laser:

1. **Power.** Laser power is rated in megawatts (MW) for all lasers, with the exception of the Plasma Accelerators. The more MW a laser delivers, the greater the destructive power. Therefore a 1MW beam laser will be a lot less powerful than the 100MW version. The power of your lasers is probably one of the most important things to bear in mind. If you have a powerful laser, you can destroy opposing ships much lot more quickly — this is especially important in multiple-ship combat and assassinations.
2. **Overheating.** As you fire lasers, they become hotter. If they overheat, they will shut down until cool enough to fire again. In a combat situation this can be inconvenient. The more powerful your laser is, the quicker it will overheat. One way to avoid this becoming a problem is to make sure you hit your target, only firing when you can make contact. Of course, the more powerful your laser, the fewer shots you'll need.
3. **Weight.** Lasers come in varying weights. As a rule, the more powerful the laser, the more space it will take up. You could have a ship which has only a laser for equipment (and thus have the biggest possible laser), but this is often not the best option. You should trade-off the space for your

laser with space for all the other essential equipment, and maybe leave room left over for cargo.

4. **Price.** Obviously, if you want the hottest weaponry money can buy you'll need to have the funds to get it. The more powerful the laser, the more expensive it will be. You should consider whether or not you need all that extra power — do you really need to destroy a 15000t Long Range Cruiser in one shot?

Missiles Missiles allow you to fire on targets that are outside laser range, and can often force an attacking ship to retreat in order to avoid being hit. There are several missiles, and not all of them are dedicated to ship-to-ship combat.

Pulse Laser

Cost / space / tech — see Table 14 on page 191.

What is it? 5MW — Brother to the 1 MW Pulse Laser, the 5 Megawatt version corrects a lot of the flaws with the smaller cannon, but is still nowhere near as powerful or as usable as some people would like it to be. It uses less energy per shot than the 1 MW version, which means you can keep your trigger finger down for much longer, and has a much faster firing cycle than the 1 MW, and even the range and power are improved drastically. A good choice for a first upgrade, as it is still relatively inexpensive to buy

1MW — The cheapest ship to ship laser you can lay your hands on, and the one weapon that most beginners find themselves having to fight with. It isn't particularly powerful, and the pulse action forces the combateer to get very good at dog-fighting as quickly as possible. The Pulse laser fires as its name suggests — in pulses, extracting a small amount of energy from the laser energy bank to warm itself up, and then firing a concentrated line of superheating energy away from the ship.

Benefits 5MW — Pretty much the same as the 1 Megawatt Pulse Laser — really small and cheap — but this one is a far better buy if only because of the extra firing power it affords you. A lot of use against larger ships, and at longer range, this is an excellent stop gap between your starting laser and a full Beam Laser

1MW — The 1 MW Pulse laser is one weapon you should get away from as quickly as possible. Although it performs its duties well enough, it isn't powerful enough against larger ships, or ships that are well stocked with shield generators, and the intermittent nature of the gun fire means you need to be extra careful with your trigger finger to actually score any hits with it. Try to only fight at close range with this weapon, as its reach isn't too great either.

Jade's thoughts 5MW — The 5MW pulse laser is a fairly effective weapon, being more powerful than the entry-level 1MW Pulse laser. While not as deadly in sustained fire as the 4MW beam laser, this laser is a good buy for commanders who have limited space in their ships, or who want to add weapons to turrets without compromising on the power of their main armament.

1MW pulse laser	1t	810 credits	4 tech
5MW pulse laser	3t	2,700 credits	6 tech
1MW beam laser	5t	6,300 credits	7 tech
4MW beam laser	20t	11,700 credits	10 tech
20MW beam laser	75t	22,500 credits	11 tech
100MW beam laser	200t	54,000 credits	10 tech
30MW mining laser	10t	10,800 credits	8 tech
Small plasma accelerator			12 tech
Large plasma accelerator			12 tech

Table 14: Lasers

1MW — This is a puny weapon. The only reason to buy one is if your ship is so small that this is the only alternative to being unarmed. Avoid.

Beam Laser

Cost / space / tech — see Table 14 on page 191.

What is it? Pulse Lasers become outmoded about a hundred and twenty years ago, when someone discovered how to fire a laser charge while simultaneously charging the laser cannon from the energy bank. The result was a laser cannon capable of firing continuously, or at least while it remained within operating temperatures. Beam Lasers are the most recent application of this engineering feat, and are the most useful line of attack against any kind of craft. These lasers fire a single solid line of superheated light energy, and hold it steady while the pilot can manoeuvre the barrel of the cannon, ‘steering’ the line of the laser around until it makes contact with the opposing object.

Benefits Once you have got your hands on a Beam Laser, you will never look back. Combat becomes a hundred times easier now, as you can fire in the general direction of the opposing craft, and then move the laser closer to your enemy ship without fear of missing. Watch out, however, as the lasers do overheat quite quickly, and you will have to wait for them to cool before you can fire again. Beam Lasers are available in a range of Megawatts, with the 1 MW, 4 MW, 20 MW and 100 MW being the most popular. They are quite large, however, and the really large ones can only be carried by the largest freight craft. A 20 MW Beam Laser, for example, takes up 75 Tonnes of cargo space on your ship.

Jade’s thoughts 100MW — The biggest beam laser money can buy, the 100MW beam laser is a seriously powerful weapon. While not being as powerful as a plasma accelerator, this laser will give your ship serious hitting power. It overheats pretty quickly, but you will need a lot fewer shots than you would with the 20MW version. A good combateer will be able to erase just about any opposition in a pretty short amount of time. The size of the laser makes it only

really practical for large ships, but it takes up a lot less space than a plasma accelerator so you will be able to fit more equipment in your ship or have more room for trading. Worth buying, but you may find the 20MW version is more practical in terms of space required and cost.

20MW — This is probably all the gun a normal pilot needs. While there are bigger lasers around, the 20MW has a lot of power and doesn't need a huge ship to put it in. It is a weapon worthy of respect. I had a ship with 1000 shield generators and an energy booster unit and encountered an Imperial Courier armed with one of these and was alarmed by the speed at which my shields were drained. The only drawback of the laser is that it is pretty difficult to get hold of.

4MW — The 4MW beam laser is a pretty effective weapon, and is especially good value for medium fighters such as the Cobra Mk III. It takes a while to overheat, and can knock down the shields of all but the most heavily protected ships fairly quickly. In the hands of a skilled pilot, it can be just as effective as the larger beam lasers. If you're fortunate enough to be in command of a very large ship, the laser is a good choice for fitting in your secondary mountings as its small size leaves enough room for a more powerful front laser, or more trading space. In addition, it's available just about everywhere.

1MW — This is the entry level beam laser, and it shows. There are only two reasons to buy this laser: it's cheap, and doesn't take up much cargo space. The hitting power is puny, and you should only bother with this weapon if your ship is too small to fit the 4MW version. You're probably better off with the 5MW Pulse laser, which is more powerful and takes up less space.

Plasma Accelerator

Cost / space / tech — see Table 14 on page 191.

What is it? For the ultimate in ship destruction, you can't get much better than a Plasma Accelerator. They come in two sizes — small and large, and just the sizes alone should give you some idea of just how potent these super cannons are. The smaller of the two will cost you somewhere over a quarter of a million credits and takes up no less than 500 tonnes of cargo space. The larger of the two, as if your smaller one wasn't strong enough, costs just shy of 600,000 credits and takes up an enormous 900 tonnes of cargo space! As a rule, these can only be carried by the largest ships in the game, but have the stopping power to destroy medium sized ships such as the Imperial Trader with a single shot.

Plasma weapons are technologically very advanced, and not many places stock them. They can be obtained, however, at Barnard's Star [-1,0], Facece [0,-4] and Gateway [-1,4]. Also see Table 11 'Technology' on page 123 for other places.

Benefits For sheer killing power, you can't get any better than a Plasma Accelerator. They don't overheat very quickly, and nothing can withstand a volley from one for more than half a second. You'll need to get very rich indeed if you are to own one, as the cost of the ship needed to carry one will bankrupt most colonies, let alone the cost of the gun itself. For the Elite combateer, everything else is just second best.

Jade's thoughts The large plasma accelerator is the ultimate weapon! You will need a large ship for this massive piece of kit, but once fitted you will have the most potent attacking force in known space. Tests revealed that a large plasma accelerator can destroy a Long Range Cruiser in just one shot, so destruction of smaller ships will also be easy. This is not a weapon to get on the wrong side of. It makes me wonder why they bothered to ban the military laser.

The small plasma accelerator is some 400t lighter than its larger brother, and a lot cheaper, so many see the small plasma accelerator as the better weapon. It isn't as powerful, but the extra space freed by the smaller weapon can be quite useful — for example you could fit a hundred or so shield generators and cruise the galaxy in almost complete immunity! Even in the most pirate infested systems, you are unlikely to need the extra firepower of the large version, since the number of pirates in Imperial Explorers is very low.

30 MW Mining Laser

10,800 credits / 10t / 8 tech

What is it? Space mining can be an extremely profitable business, with none of the cost or hassle of planet based mining. This simply involves finding an asteroid belt, and there are plenty of them out there, and then wiping out the asteroids you find by gradually grinding them down into their component minerals with a mining laser. This specially designed oscillating beam is extremely powerful, at a mighty 30 MW, and can demolish a small moon in minutes, but due to the nature of the pulse laser, it isn't too effective at taking out craft. Slow in firing, this should be used extremely carefully, as it drains your laser energy bank substantially with each blast.

Benefits If you have a spare laser cannon mounting on your craft that you don't really use, then something like this is ideal, providing that you also have a Fuel Scoop and a Cargo Scoop conversion. As it is too slow to use against fast moving objects — other craft, basically, we wouldn't recommend you mount this on the front of your craft, but once you have one you will find your credits start to rise at a rate of knots. Even if you don't intend to devote your life to mining, something like this is always handy for those long inter-system journeys as a way of building your cargo inventory.

Jade's thoughts This laser is a powerful pulse laser, which (as the name suggests) is mainly used for asteroid mining. When you fire at an asteroid with this, bits are chipped off, which you can pick up and sell. As well as this, the laser can be a surprisingly useful combat weapon, since it is very powerful. It is a good choice for small ships, due to the very small amount of space it requires. The only criticism that can be made is that the fire rate is much slower than a normal pulse laser. Of course, each shot can do a hell of a lot more damage than a normal pulse laser.

Laser Cooling Booster

360 credits / 1t / 8 tech

What is it? Beam Lasers overheat much faster than their Pulse counterparts, and can quite easily cut out at a crucial point in combat, giving your opponent time to recharge their shields. As a rule, you should only fire your Beam lasers when you are certain of a hit, to stop this happening, but a Laser Cooling Booster is another way of stopping that embarrassing Laser overheating. By cycling air at high velocities around the Laser charging unit, this manages to keep the unit far cooler, slowing the time it takes to overheat and accelerating the time it takes to cool down to zero.

Benefits The benefits of a Laser Cooling Booster can only really be appreciated when you have spent some time in intense dog fighting against a group of large ships and you are trying to stop your lasers overheating. All too often you need to fire your lasers the moment they start to cool down, giving you no time at all before they overheat again. A Laser Cooling Booster takes a lot of the waiting time out of combat, and far lessens the change of your opponent keeping their shields up.

Jade's thoughts As the name suggests, the laser cooling booster assists in cooling your lasers. If you've got a high-power beam laser, the booster dramatically reduces the amount of time you have to wait for your weapon to cool down. An essential buy for the serious combat pilot.

KL760 Homing Missile

45 credits / 1t / 5 tech

What is it? The most basic homing missile you can lay your hands on. The KL760 works like all other homing missiles in that it locks on to an enemy ship's engine core, and then uses a basic single rocket set-up to propel itself towards the enemy. It comes with a standard fuel tank that gives it no more than 60 seconds of flight, so it needs to hit its target in that time. If it doesn't it will explode into space, and hopefully hit your opponent with the shrapnel.

Benefits It's cheap, but that's about it. The KL760 is slow and stupid, and is relatively easy to outrun or shoot out of the sky. It can be destroyed by any ECM system and generally rarely hits a moving target. Still, if you can't afford anything else, then this does provide a welcome distraction for the opponents, giving you the time to close in for the kill.

LV111 Smart Missile

63 credits / 1t / 10 tech

What is it? When Electronic Counter Measures were first introduced, the only missile available was the KL760. Soon after ECM systems became standard on a lot of ships, the LV111 Smart Missile hit the market. This had full magnetic shielding around the propulsion system, which meant that ECM signals could not get through to the combat computer inside the missile, making them indestructible — at least through electronic means.

KL760	1t	45 credits	5 tech	
LV111	1t	63 credits	10 tech	Invulnerable to normal ECM
NN500	1t	90 credits	11 tech	Invulnerable to military ECM
Nuclear	1t	–	–	Prohibited
MV	?	?	?	?
XB74	1t	27 credits	3 tech	

Table 15: Missiles

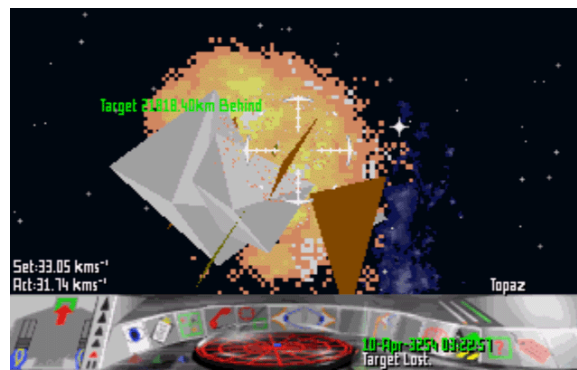


Figure 65: The NN500 at work

Benefits The LV111 Smart Missile only costs marginally more than the KL760, and is a far better buy. It can be destroyed by military and Naval ECM systems; but then the military equipment has always been of a higher standard, as we found with Hyperdrives. Most pirates though only have standard ECM systems, which makes this a welcome addition to your arsenal if you are going out bounty hunting.

NN500 Navy Grade Missile

90 credits / 1t / 11 tech

What is it? The cream of the missile world, these expensive Navy Grade missiles are the logical step up from the LV111. Completely immune to all known ECM systems, including those owned by military organisations, the NN500 is a wicked piece of equipment. Although it is still a slow missile, and still only has the flight time of 60 seconds, it has a far better success rate simply because most pirates will only try to run when they discover that their ECM systems have failed to destroy it, by which time the missile has got up to speed and is bearing down on them.

Benefits If you have the money, you could do a lot worse than stock up with NN500 Navy Grade Missiles. Although most missiles should only ever be used at close range, as to not give the enemy enough time to operate their ECM, these can be used at much longer range. They are also the most explosive missiles

available, and don't need to be that near a ship when they explode to cause a lot of damage.

Note: Missile technology is one of the most rapidly changing fields in military R&D. New missiles are created, tested, improved and junked at regular intervals. The three mentioned above have withstood the test of time. Keep your eyes peeled at your local dealer for newer, more powerful models with all the added bells and whistles

MV Assault Missile

What is it? Rumour is that the Empire are working on a enhanced missile, far more powerful than the NN500, but allegedly not immune to ECM. Nothing more is known at this time.

Nuclear missile

What is it? Due to intergalactic law, nuclear missiles are not available to the general public, and can only be fitted by military organisations. A nuclear missile can totally destroy planetary installations, and military defence satellites.

Missile viewer

45 credits / 0t / 11 tech

What is it? Sometimes it's not enough just to watch a missile hitting an opponent... The Missile Viewer receives telemetry and video data from the missiles you have launched, giving you a missile's eye view of an attack.

How to use it (F10) After you have launched a missile, click the Missile View button to start receiving video.

XB74 Proximity Mine

27 credits / 1t / 3 tech



What is it? The experienced combateer will soon learn the swooping attack patterns of pirates and learn to anticipate where they are going to fly. With the Proximity Mine you are able to take this anticipation one step further by placing a mine directly into their flight path. These small bombs are covered with hair trigger sensors, and will explode the moment anything comes into contact with them — including you, so be careful once you have laid one.

Benefits Mines are of extreme benefit when it comes to defending an area rather than just a single ship. If you are in a situation where your lasers are failing and you can see the enemy coming in for the kill, dropping a few mines and then backing off will create a barrier that the enemy is unable to pass, giving you time to make any repairs you need to.

How to use it Proximity Mines are placed in exactly the same way as missiles are launched, which isn't surprising when you consider that the mines are held in the missile pods on your ship. Set a battle target and then touch the appropriate icon on your battle console.

Energy Bomb

17,100 credits / 4t / 11 tech

What is it? As ship systems have become more and more computerised, more and more ways to damage a ship are being found. One of the latest advancements made in this field is the Energy Bomb — a jammer that sends a huge wave of power through a ship's engine, causing it to overload and explode. Due to the nature of engine fingerprinting, you can be sure of using the energy bomb in a field of twenty other craft and it will overload every single engine except yours. Most of the time, that is.

Benefits An expensive and large piece of equipment, the Energy Bomb is a one shot, last line of defence piece of equipment. When faced with dangerous odds, when your shield is all but gone and you can see an Asp coming in for the kill, the Energy Bomb could well be the only thing between you and death in the fireball that was once your craft. Don't count on it always destroying the enemy, however, as a ship with strong enough shields can withstand the blast, although they will suffer a lot of damage in the process.

How to use it Using an Energy Bomb is far too easy. so much so that you must be careful not to misfire it while playing around the combat control panel. At the top of the Battle Console you will find the Energy Bomb button. All you need to do to send out your disruption wave is hit this button, and then sit back and watch the fireworks.

Jade's thoughts There was a time when the Energy Bomb was the most deadly anti-ship weapon known to man. However, that was in the days before shields became cost-effective to fit in large numbers. It is more effective against smaller ships, but can damage larger ships or at least reduce their shields. Note that the bomb cannot distinguish between hostile and non-hostile ships, so use with caution.

6.7 Combat Electronics list

Auto targeter

72 credits / 0t / 9 tech

What is it? This is an invaluable device for when you're in the middle of combat. Your battle computer will actively seek a target. Remember, you can only get technical readouts on the targeted ship if you also have a radar mapper installed.

How to use it? (T) Press T to make the centre of your laser sights ‘hot’ — as shown by a small red blinking circle. The next ship to pass through the centre will become your selected target, and there will be a readout of the distance to it.

Shield Generator

2,250 credits / 4t / 8 tech

What is it? Hulls of modern spacecraft are incredibly strong, as they would need to be to survive the rigours of modern space travel. However, they do need a little help when it comes to withstanding attacks from other craft, and this is where Shield Generators come into the picture. These project streams of energy around the hull of the ship that cover it and create a solid barrier that nothing can break through. Constant barrage wears down the shield, however, and it does take time to recharge, so be prepared to run if things start getting bad.

Benefits Those would have to be obvious, wouldn't they? it's the difference between taking a laser blast and losing a chunk of your hull — which is very expensive to repair — and taking a laser blast and shrugging it off. So as long as you have four tonnes room on your ship, you can fit a shield generator. Bear in mind that the larger your ship, the less effective the generator will be. Each generator only puts out a finite amount of energy, and this is stretched over the entire ship.

How to use it Fit as many as you can. Once on, they will function perfectly well on their own, and you need never look at them again, but bear in mind that the more you have, the stronger your shield and the less time it takes to recharge. Some people have said that the best thing to do is get an Imperial Courier, stick a laser on the front and fill the rest with shield generators and you will never die. They could be right.

Jade's thoughts Shield generators increase the defensive strength of your ship by generating an energy field around your ship, through which weapons cannot penetrate. If you're under attack, your shield levels will decrease (how quickly this happens will depend on the firepower of the ship attacking you) until they are breached. After your shields have dropped, your ship will start to take hull damage until you manage to destroy the attacking ship, you escape, your shields regenerate or you are destroyed.

Radar Mapper

900 credits / 1t / 9 tech

What is it? When you are under attack, it is often to your advantage to find out as much as you can about your opponent, if only to give yourself the advantage of being able to understand their attack strategy. For 900 credits and a single tonne of room, you can fit a radar mapper, which will tell you just about everything you need to know about an opponent's ship, from the strength



Figure 66: Using the radar-mapper when pirates attack

of the shields and hull status to the bounty on the pilot, if any. You can then tell which shots are having the best effect in your assault.

Benefits Any edge you can get on an opponent in battle is a bonus, and that's exactly what a radar mapper can give you. It's even more invaluable to the prospective Elite cadet, as it helps them keep a track on the number of bounty kills they make, even to the point of decided whether or not to actually attack a ship approaching from a distance. Also you won't be given your rightful bounty by the police if you don't have one — it's your only proof that you got the bad buys.

How to use it The radar mapper is a self-activating feature. If you have one fitted, then as soon as you have selected a Battle target in the normal way, the Radar Mapper will present you with all the information overlaid on the main screen (See Figure 66).

Jade's thoughts Apart from the hyperdrive (of course), the radar mapper is the most useful bit of kit money can buy. Its ability to give you the lowdown on any selected ship means that even if you're just nosy you will know a lot more about your fellow pilots. It'll tell you what sort of ship it is (useful if you're too far away for visual ID), if it's got shields and if so what level they are at, what type of hyperdrive it's got, and if it's got any equipment like a Hyperspace Cloud Analyser. Most important of all, it'll tell you if there's a price on the pilot's head. While the info may be interesting for a trader, it's pretty essential for a hit-man or bounty hunter, since you can plan your attack according to the info you get.

You don't need a radar mapper to get ranking credit for a kill (i.e. it still counts toward combat rating), but recent legislation prohibits the payment of bounty to ships not carrying a radar mapper in an effort to clamp down on rogue hunters (who would destroy certain types of ship on the off chance that there was bounty — this was a particular problem for Krait owners...) If you're a bounty hunter you won't earn anything without one.

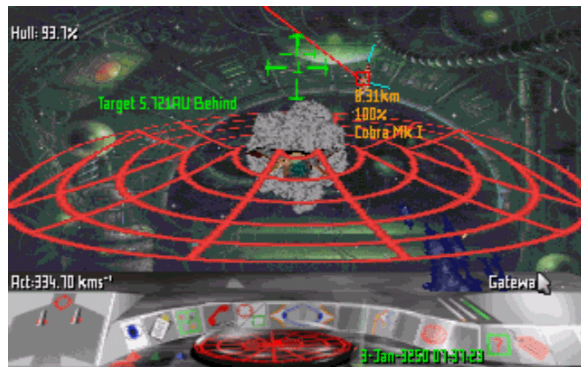


Figure 67: Under attack by a Cobra Mk I, viewed in the Combat Computer

Combat Computer

270 credits / no space / 11 tech

What is it? Sometimes when in combat, particularly against other ships, the small scanner at the bottom of the screen just isn't enough. What happens when you want a larger picture? When you want to see just who the ships are, what their allegiance is, and how much bounty is on each of them. For just a few (thousand) credits, you can get your hands on a Combat Computer, which works in much the same way as the scanner, except that it fills the screen and gives you all the information you could need on a craft at a glance.

Benefits Takes a lot of the hassle out of targeting your weapons and generally making life a lot more fun while fighting off the ravaging hordes. Is rumoured to be a prerequisite to some of the more expensive forms of Life insurance.

How to use it To activate the Combat Computer, make sure you are in View Mode (View Panel or F1) and then touch the Combat Computer panel (F11). Your combat computer will fill your head-up screen and can be used to target your weapons.

Jade's thoughts The combat computer is supposed to be an improved scanner, giving you more info about the ships around you. In practice, it is rather clumsy to make proper use of. You're better off without it.

ECM System

1,080 credits / 2t / 9 tech



What is it? This little black box takes up less than two tonnes of your ship, but will save your life time and time again. It works on the principle that all missiles are run by computer systems, and that they only explode when the computer tells them to.

The Electronic Counter Measures system sends out a message to all the missiles within range, fooling their computer systems into thinking that they have made contact with their targets, and therefore putting the detonation systems into action.

Benefits It will destroy all KL760 missiles, including yours, within range, dispensing with all that nonsense about running from a missile. In fact, as they destroy your missiles as well, this is something that you can use to your advantage. If you don't have an ECM, and an enemy ship launches a missile at you, fire one back. If they have an ECM system, they will use it, taking out both missiles at once. However, the standard ECM only works on KL760 Homing Missiles and are completely ineffective against higher grade weapons.

How to use it The ECM system sends a range of different codes to attack missiles, and this can take a second or two to perform. Hitting the ECM panel on your Battle Console will cause an electrical field to buzz around your ship for a second, and all being well you should see the enemy missiles explode before your very eyes. If they don't, then the chances are they are higher graded missiles, and you will need to turn and run.

Jade's thoughts ECM Systems are the only real defence against missiles for those who aren't lucky or skillful enough to be able to avoid them. This ECM System, when activated, will destroy all incoming KL760 missiles and any mines. It is not effective against LV110 Smart Missiles or NN500 Naval Missiles, so you should only buy this unit if you cannot afford the more powerful Naval ECM.

Naval ECM System

13,500 credits / 2t / 11 tech

What is it? The Imperial Navy were the first people to get hold of the Blueprints for the LV111, and therefore created the monopoly on the next generation of ECM systems. Their Naval ECM system works in exactly the same way as the standard ECM, except it is even more effective against the standard KL760 and also works on the LV111. It is completely useless against Navy Grade Missiles however, so we'll have to wait for the next generation of ECM before we can stop running from them!

Jade's thoughts This is the improved version of the ECM System. It does everything the standard version does, but can also destroy LV111 Smart Missiles. It cannot destroy N500 Naval Missiles, so you're going to need to get lucky if a pirate is firing N500s at you.

Chaff dispenser

72 credits / 1t / 5 tech

What is it? Chaff is used to get rid of the very bottom line missiles. This small cloud of metal particles is superheated and then ejected from the back of your craft in an attempt to distract the missile heading towards you. This only works some of the time, but if you have no ECM system, then dropping a tonne of chaff and then running from the missile works (sometimes).

How to use it Touching the chaff panel on your battle console to release a cloud of chaff from your cargo bay. Obviously, you need to have purchased chaff in advance!

Benefits The only benefits of a chaff dispenser are that it's cheaper than an ECM, and doesn't drain your ship's energy units. On the down side, it takes a lot more space for the unit, you have to keep restocking with chaff, and it's not very effective. Best to go for an ECM.

6.8 Ship list

Adder



Hull mass:	15t (55t full)
Capacity:	40t (drive + 15t)
Thrust:	18g front / 8g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	1 gun, 0 missiles
Hyperspace:	(1)5.45 / (2)21.81 / (3)49.09
Drive:	Class 2 standard
Typical cost:	73,000
Designer:	Spalder & Prime Inc.
Production:	Outworld Workshops
In-service:	2914
Allegiance:	Independent, Federation

The Adder is one of the most standard of the multi-role craft. It's size gives it room for trading, or alternatively there is enough space to house a reasonable number of extra passenger cabins, giving you the leeway to try your hand at a taxi service. The lack of missile pylons is the obvious hint at the age of the craft, as this design probably dates back to the time when missiles cost some five times what they do now, and were rarely in ready supply. Although there is the room inside for a large range of weapons, and the craft has more than enough pulling power to get you in and out of combat, we would thoroughly advise against taking an Adder into combat. These days the only pilots you see flying Adders are pirates, and that's because the craft is ideal for Fuel Scooping.

Bob's thoughts Come on, give me a break. You call that style? I call that a house brick with wings. And what's with this 8 Earth G retro rocket stuff?

If you're going to give a ship that size that kind of pulling power, at least give it some kind of a chance not to bump into planets. Seriously though folks, this actually isn't that bad a craft. Okay, so it looks like the person building it read the wrong side of the blueprints, but it handles well, and you could do worse for the price.

Anaconda



Hull mass:	150t (800t full)
Capacity:	650t (drive + 400t)
Thrust:	6g front / 3g retro
Crew:	10
Fuel scoop:	Possible
Mounts:	2 gun, 8 missiles
Hyperspace:	(3)3.37 / (4)6.00 / (5)9.37
Hyperspace:	(6)13.5 / (7)18.37
Drive:	Class 6 standard
Typical cost:	1,060,000
Designer:	Rimliner Galactic
Production:	Rimlinder Galactic
In-service:	2856
Allegiance:	Independent

One of the better freight ships, the Anaconda was the answer to all the traders around the galaxy who were tired of being boarded by pirates, and who wanted a large ship, capable of carrying the kind of load that meant that every trading trip made some money, yet had enough in the armoury department to be able to hold out against pirate ships. All round laser cannons and a hefty bank of missiles became even more necessary when you take into account the fact that the ship is quite slow to manoeuvre. Although capable of hitting speeds to match the fastest attack ships, it needs considerably more time to get to that speed, and with the puny retro rockets mounted in the forward cone, it needs even more time to get down to a manageable velocity.

Bob's thoughts Trading ships are all very well, if trading is your thing, but me, I would recommend getting a ship like this, stacking it to the gills with weaponry and fuel, and by weaponry I mean at least 20 Megawatt beam lasers on front and back, half a dozen energy bombs, a full complement of missiles and just about anything else you can squeeze on. Then take it to an Edge system and start picking the pirates off as they buzz round you like flies round a dead Zaonce Buffalo.

Asp Explorer

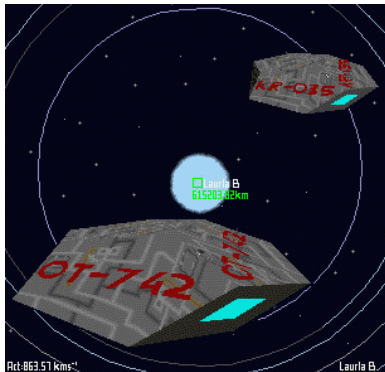


Hull mass:	30t (150t full)
Capacity:	120t (drive + 75t)
Thrust:	22g front / 7g retro
Crew:	2
Fuel scoop:	Possible
Mounts:	2 gun, 1 missile
Hyperspace:	(2)8.00 / (3)18.00 / (4)32.00
Drive:	Class 3 standard
Typical cost:	187,000
Designer:	GalCop Workshops
Production:	Core Industrial corp.
In-service:	2878
Allegiance:	Independent, Federation

In the war against the Empire, the Asp explorers were the original scout ships. Built to be fast and resilient, a surprising number of these managed to survive the reconnaissance missions they were sent upon, more often than not saved by their surprising turn of speed. All that acceleration power was often too much for one man to handle, and the two man crew often consisted of a navigator/pilot and an engine operation, whose sole task it was to monitor the engines, which were known to overheat quite rapidly in those early technology days. All engine troubles are fixed now, but the interior design of this small craft has remained more or less the same, still needed the same two man crew to fly, with navigation and piloting controls split over two consoles.

Bob's thoughts This, I have to say, is one of the best looking craft to come out of the 28th Century. I will never forget the poster I had of an Asp on my bedroom wall as a boy — it's sleek lines, the flat design, the way you almost couldn't see it when it flew head on. An Asp is a dream to fly, has enough in the way of back seat space to carry guns that count for something, and that acceleration. . . I'll tell you, you haven't felt anything until you've felt a 22g pull as you leave a class 3 planet atmosphere. By the way, did I mention that my Uncle Edo has a large selection of Asp's in his warehouse at Ganymede? Tell him I sent you, and he'll be happy to arrange a deal for you.

Jade's thoughts Probably one of the best fighters going, the Asp is ideal for the combat pilot who wants that extra bit of fire power but still have the thruster power to keep up in combat. Asps used to be only available to military pilots, and had special self-destruct devices to prevent unauthorised use. The Explorer is the publicly available version. To get the best out of this ship, you should really consider getting a military drive, which will allow you more space for equipment or even to fit a bigger drive. When equipped with a Class 3 military drive, the Asp is ideal for courier/passenger runs and most assassination contracts. Only being able to fit one missile can be a disadvantage to the more adventurous combateer.



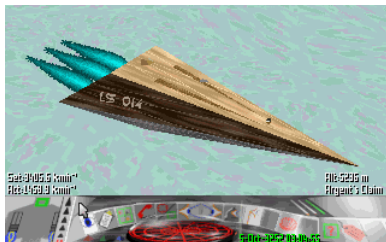
Alliance Joint Navy The Asp has seen faithful service with the Federal Navy. Quite why the Federation dropped this ship as a mainstay of their military remains unknown to the Alliance Joint Navy engineering team who found the ship to be an ideal part of their defence system with only minor changes to the design. The Federation sold the plans for the Asp for only a nominal fee of 2.2 million credits to the AAAI in 3270. As a consequence, the AAAI have restarted civilian production of the ship with a number of modern improvements, plus supplying the AJN with its Asp requirement. All Asps in service prior to 3270 are retrofitted civilian models; newer Asps are purpose built for the AJN.

Under AJN service, the Asp is typically used as a forward defence craft, being attached to the docking clamps of a Valiant-class battlecruiser until required. A long-range version and a system defence version are employed by many AIS members. The current variants are:

- FGA.1 Local system defence
- FGA.2 Long range interceptor/planetary attack
- F.1 Carrier-borne interceptor
- GR.6 Heavy ground assault carrier-borne craft

Only the FGA.2 type has a hyperdrive fitted. The FGA.2 is the most common variant, with over 1000 in service with various AIS members. The FGA.1 is next most common. The F.1 and GR.6 make formidable carrier borne craft, carrying 6 NN-550-B missiles along with a new technology 525 n.m. 6MW dual beam laser. The GR.6 additionally has a bomb-bay which can contain anything from simple assault weapons to deep space probes. All the Asp variants have a crew of two: a pilot and a weapons/navigation officer. F.1s launched from the Valiant class 'Bounty' successfully drove off an INRA attempt to prevent Veliaze from switching to the Alliance during September 3262.

Boa



Hull mass:	200t (1500t full)
Capacity:	1300t (drive + 700t)
Thrust:	8g front / 4g retro
Crew:	12
Fuel scoop:	Possible
Mounts:	4 gun, 6 missile
Hyperspace:	(4)3.20 / (5)5.00 / (6)7.20 (7)9.80 / (8+)16.20
Drive:	Class 8 standard
Typical cost:	2,474,000
Designer:	Gerege Fed. Space Works
Production:	Gupta Industrial Corp.
In-service:	3017
Allegiance:	Independent

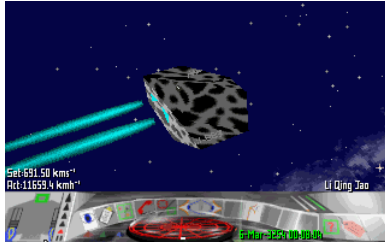
One of the faster freight ships, the Boa follows in the old pre-30th Century tradition of naming itself, and styling itself, on the early Earth reptiles. Designed with usability, not style in mind, the Boa is a simple construction, but a deceptively basic one. Underneath that wedge-like design lies a myriad of tubes and ridges that give this craft some extremely low space-wind resistance, increasing its accelerating and decelerating power. Cavernous inside, and well set up for defence, this is a good safe trading craft, with few thrills. You may have to pay well over the odds for one in really good condition, as this class of ship is getting quite old, and was discontinued a couple of generations ago to make way for the Panther Trader, it still holds its own as a worthwhile ship to own today.

Bob's thoughts There was a time when you couldn't get hold of a Boa for love nor money. When minimalism was in, reptilian life forms didn't have to wear clothing because we couldn't tell which parts of them were obscene and people liked flying a burger box on coat hanger landing gear. Mind you, this one is a stable flyer, although the cannons have a large blind spot to either side of the ship, this ship is safe, reliable, easy to fly, predictable and ultimately dull. Is this really where you want to spend the rest of your life? Good for making a few bucks in the meantime though.

Jade's thoughts Although it is now getting quite old, the Boa is still an excellent trading ship, if a little unexciting. It is one of the fastest of the very large ships, and has a very large amount of cargo space. In terms of defence and combat capability, the Boa has two turrets to match its front and back lasers (the bottom turret does not now damage the ship). There are plenty of missile pylons available, and, overall a pilot can get quite rich doing trading in a Boa, while remaining very safe even in anarchies. It is possible to travel quite large distances in the Boa as the large cargo capacity gives plenty of space for fuel, and the fuel scoop means that you can extend your range. The ship is a bit slow for most deliveries, but is especially good for reconnaissance and bombing missions as there is room for a lot of shields and a hull auto-repair system. Boas have even been known to be used by assassins!

My father had a Boa, and it gave him many years of good service. If you want a big ship, then you can't go wrong with a Boa!

Cobra Mk I



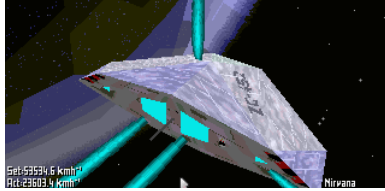
Hull mass:	15t (75t full)
Capacity:	60t (drive + 35t)
Thrust:	16g front / 6g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	2 gun, 2 missile
Hyperspace:	(1)4.00 / (2)16.00 / (3)36.00
Drive:	Class 2 standard
Typical cost:	97,000
Designer:	Paynou, Prossett & Salem
Production:	Falcon deLacy
In-service:	2855
Allegiance:	Independent, Federation

The Cobra Mk I was the Federation's first attempt at a multi-role combat craft, and we owe a lot to them for their revolutionary ship design. Fast, for its time, and large for a fighter, at the time, it offered a large degree of flexibility that most other ships didn't have. There were numerous complaints of weak hulls, and materials in the hull shielding that effected the scanner readings, but none of these were taken too seriously. 35 years after the Cobra Mk I was launched, a Falcon DeLacy engineer came up with a new form of plastiglass — one that was apparently strong enough to endure the rigours of space, yet so light that it would divide the weight of the hull by three, increasing the acceleration of any engine by a factor of three. This led to the development of the ill-fated Cobra Mk II, withdrawn immediately after launch due to the fact that the first prototype melted with the heat of acceleration.

Bob's thoughts When young pilots get their licence, they'll usually put their hands to any old banger they can get, just to have something to fly. The Cobra Mk I is the perfect example of the kind of thing that daddy will have stashed away in the back of the hanger, and he is willing to let Johnny take it out on a Saturday night if he has been good all week. OK, so it still functions as a combat craft, and even now you are going to be hard pressed to find a ship that can turn as quickly as this one, but old and cheap are the only two words I can find to describe it. Fine if you're looking for something to hold on to while you save, but not really much else.

Jade's thoughts The original Cobra, the Mk I was designed by the small shipyard Paynou Prossett and Salem and was the first one man trading ship. It was a huge success, and attracted the attention of Falcon deLacy, who had just begun to take over other manufacturers to increase their market share. PPS became part of Falcon deLacy Group in 2888. While obviously not as good as its successor the Mk 3 (but far lot better than the failed Mk 2!), the Mk 1 is still a good buy. It offers good speed for a medium-sized ship, and has reasonable capacity. A military drive would be an excellent buy, in order to give you more space to make enough money to buy a Mk 3.

Cobra Mk III



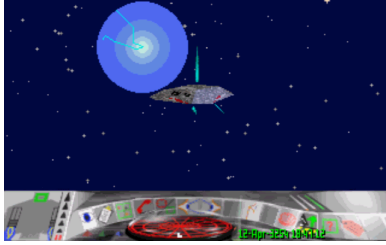
Hull mass:	20t (100t full)
Capacity:	80t (drive + 55t)
Thrust:	20g front / 7g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	2 gun, 2 missile
Hyperspace:	(1)3.00 / (2)12.00 / (3)27.00
Drive:	Class 2 standard
Typical cost:	124,000
Designer:	Cowell & MgRath Shipyards
Production:	Faulcon deLacy
In-service:	3100
Allegiance:	Independent, Federation

After a complete rethink following the collapse of the Cobra Mk II, the Federation shipyard, Faulcon DeLacy addressed some of the problems facing pilots of their day and came up with what was to be their best ship ever — the Cobra Mk III. In the 20th Century, as any history buff will know, a motor car company by the name of Ford came up with a car called an Escort, which was generally regarded to be their finest hour. The Cobra Mk III can only be described as the Ford Escort of the space lanes. It has the classic lines that millions of ships tried to emulate. It is nippy, easily manoeuvred, powerful, attractive, spacious and well defended. The only craft that Faulcon DeLacy ever built that was deemed to be more classic was the now defunct Fer de Lance — a vicious piece of combat machinery that is now outlawed, as the Police deemed it too powerful to be left in the hands of the public.

The Cobra Mk III is one of the most recognisable ship in space. Countless thousands were built, and new ones are still built by Faulcon DeLacy as well as under license by other shipyards. ship is extremely popular with traders and bounty hunters alike due to its versatility as a cargo carrier and a weapons platform. The Cobra Mk III was named ‘Ship of the Century’ in ‘What Spaceship?’ magazine in a recent poll, and with good reason.

Bob’s thoughts How can you go wrong with a Cobra Mk III? Okay, so there might be a lot faster ships out there, and there are ones that are larger, ones that have more weapons and ones that are easier to upgrade, but you sure as hell aren’t going to find one ship that has all of these things. The Cobra Mk III was the work of a genius, and there hasn’t been a ship yet that has sold so well. Sheesh, these things go so easy, I don’t have any left, so if you know of anyone who wants a good price for their’s, I’m happy to buy it off them for 60 percent of current value.

Jade’s thoughts One of the all-time classic ships, there was a time when all new pilots owned a Cobra Mk III. The Mk III is quite a good combat ship, being both fast and maneuverable. It is also a reasonable trading ship, but, like others in its weight range, this is at the expense of combat power. It is ideal for deliveries, but is a little lightweight for assassinations. If your target manages to get some shots in, then you could be in trouble. Bombing and photography missions will be very risky.



Alliance Joint Navy New Rossyth Shipyards builds the Cobra Mk III for Alliance Joint Navy members, under license from the designers. The Cobra is a very space efficient design when fitted with custom equipment, and it was natural for the AJN to take the ship into widespread squadron service. Extremely popular with its pilots, it is used

in both a long-range defence variant fitted with a Class 3 military drive of AAAI design, plus a short-range version with no hyperdrive carried externally by Valiant class battlecruisers. The current variants are:

- T.7 Long-range trainer variant.
- F.7 Long-range defence variant, fitted with Class 3 hyperdrive
- FGA.1 Carrier-borne fighter/ground attack

The FGA.1 variant is a pirate's nightmare: with no hyperdrive, this ship packs an unrivalled punch from its 525 n.m. 4MW new technology dual beam laser. It also carries a seriously large compliment of custom-fit shield generators making it a difficult craft to attack at best. The T.7 variant comes fully equipped as the F.7 with the exception that it includes a second crewmember position at the expense of fuel. Currently the Alliance Joint Navy has 37 T.7's in use as an advanced combat trainer. No other AJN member uses the T.7 at present.

Constrictor



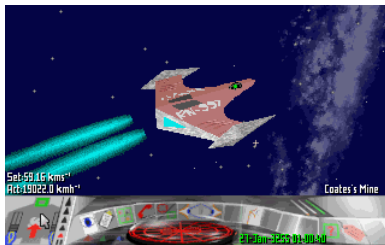
Hull mass:	30t (120t full)
Capacity:	90t (drive + 65t)
Thrust:	22g front / 10g retro
Crew:	2
Fuel scoop:	Possible
Mounts:	2 gun, 2 missile
Hyperspace:	(2)10.00 / (3)22.50 / (4)40.00
Drive:	Class 2 standard
Typical cost:	143,000
Designer:	The Organisation
Production:	Vega Line Corp.
In-service:	3189
Allegiance:	Independent, Federation

The Constrictor is a machine built for speed, plain and simple. The acceleration rate is unusually high for this small trading craft, which would explain why so many people confuse it for a combat ship. The small number of missile pylons reveal it's real use, though — as a way of transporting goods through the dangerous straights of the galactic area just east of the hub of the galaxy. Even the retro thrusters have been boosted, to give this ship more than a fighting chance in combat against three or four opponents. The lines of the ship show it's age, coming from a time when planet landing wasn't possible, and you will find that a craft like this, or one of its age, will give a disturbingly rough ride on entry into a planet's atmosphere.

Bob's thoughts Constrictors have always worried me, and shall I tell you why. For a ship of its size — and it is a huge ship — it seems to have an awfully thin hull. Now I'm not going to cast aspersions on the designers of the hull, knowing as I do that they are particularly well connected, know what I mean? But a ship this size should have far more than a 30 tonne hull. By the way, if any of The Organisation are reading this, the hull is a miracle of modern engineering, and anyone who says that this small anomaly is the only interesting point on an otherwise faceless and lifeless craft is obviously insane. Right guys?

Jade's thoughts The Constrictor is the only ship allegedly designed by organised crime. It seems that the mysterious Organisation were involved its development. The rumours suggest that the son of a high-ranking member of the fraternity has a hobby of designing ships, and the Organisation decided to get the ship built. The initial reluctance of the Shipyards department of the Vega Line Corporation dissolved after a number of their executives had nasty accidents. . . The Constrictor is a nice little ship. Although it is officially a small trader, many people see it more as a medium fighter, due its impressive acceleration and manoeuvrability. There is a fair amount of room for weapons in the ship, still leaving enough space for a small amount of trade. Many Constrictor pilots choose to replace the standard drive with a military drive, and I recommend you follow their lead.

Eagle Long Range Fighter Mk I



Hull mass:	5t (25t full)
Capacity:	20t (drive + 10t)
Thrust:	25g front / 10g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 2 missile
Hyperspace:	(1)12.00 / (2)48.08
Drive:	Class 1 standard
Typical cost:	38,000
Designer:	Falcon deLacy
Production:	Falcon deLacy
In-service:	3195
Allegiance:	Federation, Empire

A nippy little runabout is one of the most accurate descriptions of the first in the Eagle Long Range Fighter range. This tiny ship, which could easily fit threefold inside a Cobra Mk III, is designed for fast, accurate combat — the kind where you rush in from an awkward angle, take out just about everyone before they can begin to get a bearing on you, and then get out again. That said, the small size of the craft has proven to be its undoing, as the lack of cargo space means that there isn't really much you can do with it. Once you've fitted a decent laser and given it enough fuel to do a decent hyperspace lump, it's full. Not a ship to make money in, unless your trade is bounty hunting.

Bob's thoughts This has to be the perfect beginner's craft. Okay, so you ain't going to make a fortune trading a single tonne every time you fly, but if

you really want to fly, then this is the ship to do it in. One of the things I really like about the Eagle Mk I is that the pulling power it gives, means you don't actually have to fight in it. You can just run away until you are proficient enough to stand your ground. Also, it's tiny, so most pirates and bandits are going to have a hard time just drawing a bead on you, let alone getting you to stay put for a second so that they can get a shot in.

Jade's thoughts 50 years ago, the Eagle Mk I was the most popular entry-level ship. It is a small single-seat fighter, and offers a lot speed. While it is probably one of the best in its class, it is too small if you want to make reasonable profits from legal trade. It really does need the fitting of a military drive for it to be useful.

Eagle Long Range Fighter Mk II



Hull mass:	6t (28t full)
Capacity:	22t (drive + 12t)
Thrust:	28g front / 4g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 2 missile
Hyperspace:	(1)10.71 / (2)42.85
Drive:	Class 1 standard
Typical cost:	41,000
Designer:	Federal Military Research Directorate
Production:	Federal Military Shipyards
In-service:	3199
Allegiance:	Federation

Comments on the Eagle Mk II sent the Federation designers back to the drawing board, and their results weren't really worth the seven years of work they put into it. From the outside, the Eagle Long Range Fighter Mk II looked more or less identical to its smaller brother. All the work was done on the interior of the ship — reworking the wiring and cabling systems, setting the control cockpit a little higher and extending the rear of the craft slightly between the wings to create two extra tonnes of cargo space. However, almost all of the braking power of the Eagle was lost in the transition, making the Mark II quite an unpopular ship. The pilots who upgraded had to seriously rethink their combat strategies, losing their rapid velocity changes and instead relying on the acceleration of the beast — which had increased to make this one of the fastest ships around.

Bob's thoughts The first time I saw an Eagle Long Range Fighter Mark II, I thought it was a Mark I that had been well looked after. The first time I flew one, I thought it was a Mark I that had been to hell and back. Ask Lugie. I kept saying to him, “what's the matter with these retros?” You want to know the funny thing? These things actually cost more than the Mark I. The dealers say that the extra cargo space makes it worth it. Well excuse me pal, but what's the point of having the extra cargo space if you ain't got a hope in hell of stopping anywhere near a system that wants to buy your cargo?

Jade's thoughts The Eagle Mk II was designed by the Federation to be a successor to the popular Eagle Long Range Fighter, and was launched with great pomp and circumstance. However, it soon became clear that the designers had had an off-day, as the retro thrusters were ridiculously weak. Rumour has it that the project ran behind schedule, and the designers hadn't done the retro engines so put in some surplus main thrusters from the Lifter and hoped no-one would notice. This has been denied by the Federation. There is no real reason why you should buy this ship, as the two extra tonnes of cargo space do not compensate for the terrible retros. Consider buying an Eagle Mk III instead.

Eagle Long Range Fighter Mk III



Hull mass:	8t (30t full)
Capacity:	22t (drive + 12t)
Thrust:	28g front / 15g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 2 missile
Hyperspace:	(1)10.00 / (2) / (3)
Drive:	Class 1 standard
Typical cost:	43,000
Designer:	Imperial Navy Research Dept
Production:	Gutamaya Corp.
In-service:	3199
Allegiance:	Empire

It took the Empire's better paid designers to fix the problems of the Eagle Long Range Fighter Mark II — something they did in almost no time at all. In fact, there was a lot of talk at the time of imperial designers destroying the work of the Federation while they were building their upgrade, as the imperial blueprints fixed every major, and even most of the minor flaws behind the Mark II. The ship is still amazingly fast, pulling a huge 28 Earth G's acceleration, but now has stronger retro power than ever before, reversing at speeds that most combat ships fail to reach from their main engines. The thing that caused the most suspicion was that the imperials had managed to do this while retaining the dimensions of the Mark II. A long and drawn out court case ensued, but collapsed after 15 years due to lack of funds on the Federation side, and the matter was laid to rest.

Bob's thoughts Now this is class. Every so often, one of those boffins with the large foreheads and the spanner collections sets out to do something, and they get it right. You couldn't ask for a better combat ship. It's got all the speed you could ever need, it's got more than enough in the weaponry department, and you can fly it solo. The seating can be a little uncomfortable, especially since they introduced these waterbeds as chairs. Forgive me for being an old stick in the mud, but I happen to like the kick you get from slamming in retros with this kind of power. If you're into combat, then this is one serious piece of kit to get hold of. Uncle Edo's got some of these too. Remember, Bob sent you.

Jade's thoughts Introduced a few months after the Federation's Eagle Mk II, the Mk III's designers had solved all of the problems of the earlier craft. The

Imperial authorities had initially been angry that the Federation had beaten them to production, but when the problems of the Mk II came to light they instead turned their attentions to mocking the Federal Military. The Eagle is manufactured by the Gutamaya Corporation. The Eagle Mk III is the Empire's attempt at producing a sequel to the popular Eagle Long Range Fighter, and is a lot better than the Federation's Eagle Mk II. If you are looking for a small fighter, then this is the one that you should buy, as it is much faster than the original Eagle, and has a larger cargo hold. However, it is still a bit cramped.



Alliance Joint Navy The Eagle Mk II is a versatile small interceptor, and so is used in the Alliance Joint Navy as escorts, small fighters, carrier-bound ships and advanced combat trainers. AAAI builds the Eagle under licence, even though the Empire now refuses to sell Couriers/Explorers to the Alliance Joint Navy (presumably, they don't believe the Eagle to represent a threat in Alliance hands).

A small number of Eagles are used as advanced combat manoeuvring trainers for the AJN; most of the fleet is on active duty as interceptors/escorts for transports and ground assault craft. A small number has been made 'stealthy' by redesigning certain parts of the hull to make detection harder — these ships are employed to perform intelligence missions into hostile territory. The current variants are:

- T.1 ACM trainer
- F.6 Transport/bomber escort. Also carried by some capitol ships
- E.1 'Stealth' reconnaissance version

The E.1 uses special drive technology designed specifically for the stealthy version of the Eagle. The T.1 and F.6 are equipped with an interplanetary prime-mover drive only. When used as escorts, they are attached to the vessel they are escorting to travel through witch-space.

Falcon



Hull mass:	5t (16t full)
Capacity:	11t (drive + 5t)
Thrust:	30g front / 9g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 2 missile
Hyperspace:	(1)18.75
Drive:	Class 1 Military standard
Typical cost:	46,000
Designer:	Federal Military Research Directorate
Production:	Core Industrial Corp.
In-service:	3248
Allegiance:	Federation

Although at first glance the Falcon may look a little odd, with the pilot's cabin strung out way in front of the huge forward swept wings, nevertheless this unusual design is one of the biggest achievements in aerodynamics to date. Pulling an absolutely massive 30 Earth G's, this tiny single seater combat craft is one of the fastest ships available to the public, capable of outrunning just about everything. Its minute size means that it is practically impossible to upgrade it — but due to the fact that it is almost impossible to hit at a range of anything over 200 metres, there isn't any point to adding shield generators and other forms of defensive equipment.

Bob's thoughts To see one of these things take off from the ground is to witness the kind of speed that only an atomic explosion can produce. I'm surprised they bothered to fit this one with a StarDreamer at all, as it'll take you no time to cross the galaxy in this. Read the journals? You'll be lucky if this leaves you any time to glance at the headlines. A word from the wise to the not so wise, though. This can be quite a tricky beast to control, as it's far more jumpy than your average craft. You might want to practice combat by taking on the police in the more anarchic systems. Don't worry about them catching you. I have it on good authority that the police have only ever managed to bring down two Falcons in the last 30 years.

Fer-de-Lance

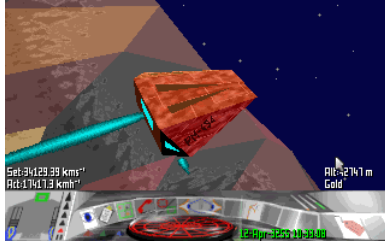


Hull mass:	—
Capacity:	—
Thrust:	—
Crew:	—
Fuel scoop:	—
Mounts:	—
Hyperspace:	—
Drive:	—
Typical cost:	Not available
Designer:	Zorgon Petterson Group
Production:	Faulcon De Lacy
In-service:	3100
Allegiance:	None (Banned)

The Fer-de-Lance is seen by many of the more experienced pilots as the best fighter ever. It was the craft of choice of the rich, well-connected bounty hunter, and was also owned by many assassins. The latter group proved to be the ship's downfall, however, as a large number of assassinations of high ranking officials on both sides led to the banning in 3185 of both the Fer-de-Lance and military lasers. Outside of museums, the only Fer-de-Lances still flying are owned by high-ranking military officers or chiefs of corporations who can afford to bribe the police.

Jade's thoughts I want to fly a Fer-de-Lance! If anyone finds one hidden in some corner of the galaxy, please let me know!

Gecko



Hull mass:	11t (45t full)
Capacity:	34t (drive + 9t)
Thrust:	16g front / 19g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 1 missile
Hyperspace:	(1)6.66 / (2)26.66 / (3)60.00
Drive:	Class 2 standard
Typical cost:	66,000
Designer:	Robert Bream
Production:	Ace & Faber HullWorks
In-service:	2852
Allegiance:	Independent

The Gecko is one of the strangest craft ever released onto the market. Now and again ship designers try to hit a niche market. Invariably they get it wrong, and the ship is sold as a general role craft. The Gecko was, as far as records can show, built as a tug craft, used primarily to tow broken down ships from the depth of space to safety, where the working parts were salvaged and the rest of the ship melted down. As the costs of such a mission are sometimes astronomical, this was a trade that made very little money – and that only if you were very good at it – so it all fell apart. This would explain the powerful retro thrusters on the craft, which are the only high point of this average size, average power transport.

Bob's thoughts My oh my, what happened here? Here you have a craft that some independent cowboy has pieced together from scraps, and it looks like he's put the thing together back to front. This is supposed to be a combat ship, but who for? With retro rockets that are more powerful than the main engine, the only use I can see for this ship is that it's great for running away. My advice to you is, only buy this ship if you have your head on backwards. That way you can mount a laser cannon on the rear mounting and then fly the thing in reverse — it's the only way you're ever going to get anywhere in it.

Griffin Carrier



Hull mass:	241t (2425t full)
Capacity:	2184t (drive + 1584t)
Thrust:	6g front / 3g retro
Crew:	12
Fuel scoop:	Possible
Mounts:	4 gun, 8 missile
Hyperspace:	(5)3.09.00 / (6)4.45 (7)6.06 / (8+)10.02
Drive:	Class 8 standard
Typical cost:	3,403,000
Designer:	Mic Turner
Production:	AAAI
In-service:	3245
Allegiance:	Indep., Alliance, Fed.

The Griffin is a ship to own if you are really serious about your trading, or quite like the idea of carrying tonnes of prohibited cargo. A huge ship, with which the skillful pilot could make a fortune in only a couple of flights, the Griffin is slow but very heavily armed — which is one reason why Pirates tend to avoid it, at least if they are travelling solo. All the cargo space you could want, plus a manageable crew and decent weapons set-up, make this one of the main ships to own if you fancy making your life with trading.

Bob's thoughts Solid. This is a solid ship that exudes power like you would not believe. Why, just take a look at it and you'll see it looks just like a giant metallic fist, waiting to strike the first person who comes up against it. A formidable sight, and a toy for the rich too. Mind you, take one of these and a good trade route, and you'll soon discover how the rich got to be so rich in the first place! There aren't many ships I would heartily recommend — well at least not truthfully — but this is one craft that I would certainly recommend you keep your eye out for.

Jade's thoughts Pilots should take note that the bottom turret damages the ship if you fire from it.

Gyr



Hull mass:	16t (78t full)
Capacity:	62t (drive + 37t)
Thrust:	15g front / 6g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	2 gun, 4 missile
Hyperspace:	(1)3.84 / (2)15.38 / (3)34.61
Drive:	Class 2 standard
Typical cost:	102,000
Designer:	Core Industrial Corp.
Production:	Core Industrial Corp.
In-service:	3234
Allegiance:	Federation, Alliance

Another single seater combat craft, the Gyr is bought by only two types of people — drugged out ex-hippies who are after a kick (who pronounce the ship's name as 'Gear') and the young thrill seekers who find it clever to enter hyperspace as close as possible to heavily populated areas (these kind pronounce it 'leer'). Both are making extremely poor use of what once stood as a very stylish and exciting craft to own. Its revolutionary styling with unique Tail Engine caused a major stir on launch, but the craft has since failed to live up to its original promise. A good basic combat craft, but lacking respect.

Bob's thoughts I remember the first time I saw one of these, too. I was with my nephew Billy, and I distinctly recall telling him that this was one weird looking ship. Okay, so it looks like it can really move — and it can too, but I could not for the life of me get my head round that weird curvy tail. Have you ever seen a ship with no tail end? Me neither, but I guess it adds a kind of

personality to the whole thing. It's a fun little ship, though, and I don't care who rides them around. I come from the school of thought that says that the more optional extras you have, the more of a ship you have.

Jade's thoughts A pretty good single-seat fighter, the Gyr is one of the more exciting looking ships. If you fit a military drive, there's reasonable room for some decent weaponry. The biggest problem with the Gyr is that you can't see anything behind you from the cabin! This problem can be partly solved by turning labels on. I had a Gyr for a short time, and quite liked it. It's fast, handles well and you can put decent weapons in. However, you'll get sick of not having a back view, and will trade your Gyr in for something else.

Harris



Hull mass:	28t (111t full)
Capacity:	83t (drive + 58t)
Thrust:	21g front / 9g retro
Crew:	3
Fuel scoop:	Possible
Mounts:	2 gun, 2 missile
Hyperspace:	(2)10.81 / (3)24.32 / (4)43.24
Drive:	Class 2 standard
Typical cost:	135,000
Designer:	Perez Corp.
Production:	Perez Corp.
In-service:	3237
Allegiance:	Alliance, Federation

The Harris is a sturdy little piece of retro design that features some of the latest engineering enhancements, held together in a classic frame. A speedy little ship, this single seater was developed as a multi-role, but has found success as an ideal limousine for those down on their luck. To travel from one system to another in a Harris is regarded as travelling in style for many, as pilots tend to keep the interior of the craft as spotless as the outside. Its power twin engines give it almost unmatched acceleration, and the relatively small size of the craft gives it quite a range when it comes to hyperspace engines, particularly with a military drive fitted. One small complaint is the lack of missile space, but this is more than made up for by the extra cannon mountings.

Bob's thoughts Ah, now this takes me back. A sturdy little twin engine craft that can turn on a space mump and burn hydrogen with a fury. They're a lot of fun to fly, too, so what more could you ask for? With one of these you've got easy living, plenty of comfort and a career. Mind you, if you want a little more out of life than the opportunity to carry people from A to B, then there are other ships on the market. Higher priced ones too, but I'd be happy to do you a deal.



Alliance Joint Navy The Harris is a recent addition to the fleet of the Alliance Joint Navy, entering fleet service in 3272. Built at Ankermann shipyards in Titican, it is used by the navy primarily as a self-sufficient deep space interdiction craft. Equipped with a Lance & Ferman deep space scanner,

it is designed as a forward defence craft to prevent trouble before it starts. Typically, most of the Harris fleet are carrying out defence missions and border patrols ensuring that hostile powers cannot attempt to take Alliance members by surprise. These border patrols have proven worthwhile since they have detected several INRA infiltration attempts into systems on the Alliance frontiers. The three-person crew ensures that the ship can remain in deep space for months at a time by working in shifts. The following variants are employed in AJN service:

- T.2 Long range trainer variant, supports 4 crew.
- F.3 Long range patrol/interdiction.

Generally, F.3s on patrol will be in flights of three or more. The commissioning of the F.3 has cut down piracy in the outlying regions of system space significantly across the Alliance, since the crews typically investigate any ships that appear to be either INRA or just lurking with intent.

Harrier



Hull mass:	25t (134t full)
Capacity:	109t (drive + 64t)
Thrust:	21g front / 8g retro
Crew:	2
Fuel scoop:	Possible
Mounts:	2 gun, 4 missile
Hyperspace:	(2)8.95 / (3)20.14 / (4)35.82
Drive:	Class 3 standard
Typical cost:	174,000
Designer:	Perez Corp.
Production:	Perez Corp.
In-service:	3231
Allegiance:	Federation, Alliance

In days of old, the Harrier Jumpjet aircraft was thought to be the peak of aerodynamic excellence. This was however back in the time when ships needed a running start to leave the ground, and a craft that could bang in the air was quite a rarity. This namesake space-ship leaves a lot to be desired, as it comes in as one of the smaller trading ships around. It still has a fair old kick when it comes from getting to place to place, but the amount of room it leaves the potential trader makes any large hyperspace engine a poor buy, unless you happen to find two systems close together that have wildly different buying and selling prices. Easily defended and easily manned, this is a bog standard trading ship that is almost perfect for the beginner.

Bob's thoughts What can I say about the Harrier that isn't scrawled in the conveniences of space bars all over the galaxy? This is a craft that bands tour in when they are starting out. This is a ship that your brother once owned. This is the bottom of the trading line, and if you're going to be a trader, then this is probably where you are going to start. I'll happily sell you one, but I very much doubt that you would happily buy one.

Hawk Airfighter



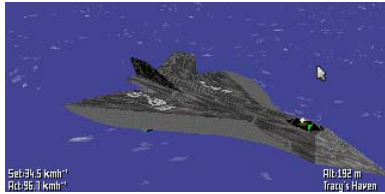
Hull mass:	5t (18t full)
Capacity:	7t (drive + 1t)
Thrust:	27g front / 6g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 2 missile
Hyperspace:	(1)16.66
Drive:	Class 1 military standard
Typical cost:	48,000
Designer:	Federal Military Research Directorate
Production:	Core Industrial Corp.
In-service:	3135
Allegiance:	Federation

In archaic times, the Hawk was one of the most feared predators of the air. Known more than anything for its keen sense of vision, the Hawk was rivalled only by the Eagle for its vicious attacks, speed and grace. How fitting that in these times, the Hawk Airfighter is one of the only serious rivals to the Eagle Long Range Fighter Mark III. With plenty of room for enhancements, the basic Hawk is the building block from which many military combateers build their nest, making full use of the mammoth acceleration power of this craft to get in, perform their mission, and then disappear again. Quite hard to get hold of, as these were built in a limited run, this is one craft to keep your eyes open for.

Bob's thoughts What do you need to know? This is a very fast ship, capable of taking out just about everything without blinking, and can leave almost everything in its wake from a standing start. I told you already that I don't think the Federation should have wasted their money on building a new ship, but they did, and I'm going to sell it. Hey, forget principles. A guy's got to make a living, you know?

Jade's thoughts Hello? Bob? What are you on, and can we have some? This ship is fast, handles like a dream but is *too small* for serious combat! With this ship, you have almost no room for gear. While you'll be hard to hit, the near total lack of offensive capability mean that you'll probably get killed quicker than a Hognose being jumped by Thargoids (old pilot's joke...) The fact is, with only one ton of internal capacity after you've fitted the drive, two of your weapon mountings will seem to be a sick joke — there's no room to put anything on them. And that's if you decide you don't want a scanner or autopilot, and don't intend to leave the system (1t of fuel and no equipment!) Do not buy this

ship unless you do courier missions and don't expect opposition (or, for that matter, landing on a planet — atmospheric shielding takes up 1t of space).



Alliance Joint Navy The Hawk is used as the primary initial trainer for cadets of the Alliance Joint Navy. It is used to teach basic aerodynamics for atmospheric operations, atmospheric combat manoeuvring and ground strikes. Additionally, some of the fleet is equipped for space travel, and is

used for basic space combat training. Economical to operate, this small craft is built by Vincent Aerospace in Vega.

The cadet school has a compliment of 200 Hawks — 95 based at Dublin Citadel, and the rest at Old Curie on Hope. The Hawks generally carry only inert weaponry. Laser attacks are simulated. The aircraft have sensors placed on the fuselage, tail and wings to detect weapon strikes during mock combat manoeuvring. Current variants are:

- T.1 Basic atmospheric trainer
- T.4 Basic space combat / space-to-ground trainer

The T.1 is not powered by a typical spacecraft prime mover; instead it is powered by two turbine engines which are vastly cheaper to operate than space capable prime movers. The T.1 lacks vertical takeoff capability, instead it uses a runway. The T.4 prime mover is built using class-4 technologies, but no hyperspace capability is available.

Imperial Courier



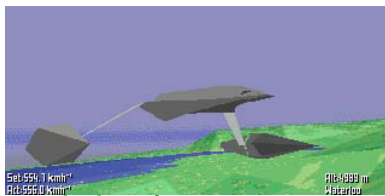
Hull mass:	130t (480t full)
Capacity:	350t (drive + 200t)
Thrust:	16g front / 6g retro
Crew:	3
Fuel scoop:	Not possible
Mounts:	1 gun, 6 missile
Hyperspace:	(3)5.62 / (4)10.00 (5)15.62 / (6)22.50
Drive:	Class 5 standard
Typical cost:	611,000
Designer:	Imperial Navy Research Dept.
Production:	Gutamaya Corp.
In-service:	3145
Allegiance:	Empire

Every fleet must have its mainstay, the one craft that is there to back up everything else, and the one that always comes back. The Federation may have the Cobra Mark III, but the Empire have come up with their own piece of wicked hardware. Years of design, with designers and engineers working under threat of execution if they don't get it right this time, has produced the Imperial Courier — once the front line of every imperial attack, now available to the general public. It's large enough to be a successful trading ship, although not as much

as its larger brother the Imperial Trader. Yet it's fast and powerful enough to easily handle itself in any role, from combat to mining. This has fast become one of the most desirable craft in the galaxy and, since the breakdown of the cold war, it's in easy supply.

Bob's thoughts Now this is a ship to own. The Imperial Courier is just about every pilot's dream, and I honestly can't see why anyone would ever want to upgrade from it.

Jade's thoughts Probably the finest dedicated fighter in the known universe, the Imperial Courier is *the* ship to be seen in! The ship was originally designed for the Imperial Navy, and when properly armed is a devastating combat machine. The large internal capacity allows a decent number of shield generators and a powerful laser to be added and still leave enough space for trading or fuel for long trips. There are a number of these ships in the hands of pirates, and an encounter with a Courier armed with a 20MW beam laser can be a very frightening experience. As befits its military origins, the Courier is adept at all of the missions you are likely to get should you choose the military life. There were a number of Couriers which could operate with just the commander, eliminating the need for a crew, but these are not available to the general public. If at all possible, you should try to obtain an ex-military Courier (identifiable by red and blue stripes on the front part of the engines) as some of the ships for sale have been sold by pirates attempting to evade the police.



Alliance Joint Navy The Courier is very pleasing to the eye. However, it wasn't its aesthetics that put it in Alliance Joint Navy service — rather its capabilities. With only a crew of three, this large ship is impressively simple to operate and gives unmatched performance.

The Alliance ran into problems procuring Couriers directly from Imperial shipyards — the Empire felt that the Alliance was not necessarily a friendly force. Like with the Explorer, from that point the AJN's needs were fulfilled by purchasing civilian models on the open market, something the Empire could do little about (short of starting a full scale war, which fortunately they were not prepared to do on a matter this minor). The current variants are:

- T.4 Multi-capability trainer
- C.4 Cargo and troop deployment
- FGA.2 Heavy multirole combat variant
- B.3 Light bomber

The fact that a transport, multirole combat and bomber version exist in the AJN's inventory is a tribute to the versatility of this design. The T.4 version is designed so that the configuration for training can be changed to make it a trainer for the FGA.2 or the B.3 models.

Imperial Explorer



Hull mass:	211t (1996t full)
Capacity:	1785t (drive + 1185t)
Thrust:	8g front / 4g retro
Crew:	10
Fuel scoop:	Possible
Mounts:	2 gun, 6 missile
Hyperspace:	(5)3.75 / (6)5.41 (7)7.96 / (8+)
Drive:	Class 8 standard
Typical cost:	2,996,000
Designer:	Imperial Navy Research Dept.
Production:	Gutamaya Corp.
In-service:	3248
Allegiance:	Empire, Alliance

The Imperial engineers have always been praised on their imaginative and often ground breaking design, particularly with their two main successes, the Courier and the Trader. Now there is a third ship to complete the trilogy — The Imperial Explorer. This gigantic craft was built to further the Imperial domination of the galaxy by giving them unparalleled travelling power, with pilots able to take up to five years out in one run, moving from system to system, claiming each new territory. It is also used as a trading ship, but many see that as a mark of disrespect to the original designer.

Bob's thoughts This ship definitely reminds me of something, but I can't for the life of me remember what it is. This craft — not that I've ever had one to sell you understand — is what starships are all about. Huge inside and out, this is one ship you need never leave. You could live for years in a ship like this, cruising the systems, taking in the views of the galaxy. Or you could just fill it with Hydrogen fuel and shield generators and see how many anarchic systems you could clean up before you had to dock for food supplies. If you buy one of these, for pity's sake get out and explore in it! If I see you trading in one of these, I'll personally spit on your gravy, you understand!

Jade's thoughts This is one of the biggest ships around, and completes the trilogy of the bigger Imperial ships. Originally designed for exploring the galaxy looking for new planets, this ship is equipped with fuel scoop, giving you huge range, although this is limited by the fact that the drive would break down after a year's lack of servicing, so you shouldn't stray too far from inhabited space. It is also a good trading ship, but many see this as a waste of the ship's potential. The vast capacity means that, with a bit of thought and a lot of money, this ship can be made virtually impregnable. There is ample room for the fitting of a large plasma accelerator, which is seen by many as the ultimate weapon available. In one of these ships you can make the Riedquat run almost without fear! The major worry about the Imperial Explorer is that there have been reports of pirates with plasma accelerator equipped Explorers in some of the frontier systems. The Imperial Navy are also equipped with these, which makes a career with the Feds a lot more dangerous. I'd buy one of these if I could afford one!



Alliance Joint Navy Sooner or later, most combaters get to see the awesome sight pictured on the right. Quite often it's the last sight they see. The Explorer is an impressive weapons platform. The Alliance Joint Navy is not averse to using a foreign design when it gives the right performance.

The Empire quickly refused to sell Explorers to the Alliance, so nearly all of the AJN's Explorer fleet consists of converted civilian models (much to the Emperor's frustration). Typically, the Explorer is used as a troop carrier or refueller, but a heavy bombardment variant is also in service. Some of the supply variants are attached to peacetime scientific missions carried out by the Victor class starship, the AJN Excelsior. The AJN Lion also had a complement of Explorers when it disappeared - two of the Explorers were deploying scientific instruments and it's due to the deep space capability of these vessels that the Explorer crews returned home without the AJN Lion.

The cavernous interiors of this vessel means that the bombardment version is extremely heavily armed and can perform missions without escorts should it become necessary. However, this is typically avoided since the Explorer is not a particularly agile craft. The current variants are:

- B.1 Heavy bomber. Also carries a 20MW beam laser for defence.
- KC.3 Refueller and tactical supply vessel.
- C.3 High capacity troop carrier/transport.

Imperial Trader



Hull mass:	175t (700t full)
Capacity:	525t (drive + 275t)
Thrust:	9g front / 4g retro
Crew:	6
Fuel scoop:	Not possible
Mounts:	1 gun, 6 missile
Hyperspace:	(3)3.85 / (4)6.85 / (5)10.71 (6)15.42 / (7)21.00
Drive:	Class 6 standard
Typical cost:	954,000
Designer:	Imperial Navy Research Dept.
Production:	Gutamaya Corp.
In-service:	3147
Allegiance:	Empire

The only other imperial craft developed specifically for the war was the Imperial Trader. Originally a troop carrier, this has now been adapted primarily for trading — with its huge 525 tonne cargo space — but still has room for enough armaments to make it a fierce combat machine in a corner. Although it may plod along in comparison to the faster Imperial Courier, it can still stand up

against most combat ships with ease. For a combat craft, some may find that a crew of six is a little excessive, but for those who are used to flying trading craft, it should seem refreshingly light. A stable, solid ship that should last for centuries.

Bob's thoughts It's a crying shame that they couldn't get the same person who did the exterior design of the Courier to work on this one, because it's one of the boxiest looking things I have ever come across. Not that I have anything against the Imperial Trader, you understand. All things being equal, it's one hell of a competent ship, and one I would strongly recommend. Large and strong, it's a bit slow, but that didn't stop my grandmother becoming a wrestler so there's no reason why should overlook this ship. So it isn't as sexy. So what? Who are you to tell me what's sexy anyway?

Jade's thoughts The big brother to the Courier, the Imperial Trader is, as its name suggests, primarily a trading ship. Although not as fast as the Courier, the Trader has a similar hyperspace range. It is still possible to equip the Trader for a combat role, at which it performs quite well, although the handling is still not fighter class. The larger internal capacity allows commanders to equip their ship with a hull auto-repair system, which in the Courier would have taken up most of the remaining space. Like the Courier, the Trader is also good at the full range of military missions, although being slower you will have to allow more travel time in your destination system. The greater defence capability make bombing and photography missions safer.

Interplanetary Shuttle



Hull mass:	4t (8t full)
Capacity:	4t
Thrust:	5g front / 3g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	None
Hyperspace:	None
Drive:	Interplanetary drive standard
Typical cost:	14,000
Designer:	Saud-Kruger Astro Design
Production:	Saud-Kruger Astro Works
In-service:	Unknown (pre-2500?)
Allegiance:	Indep., Fed., Empire

No one actually knows why these are still around, other than the fact that they are incredibly cheap. The four tonnes of cargo space are taken up immediately by the tiny engine that gets them from planet to planet, and all they can be used for is travel from a space station to planet side. These pathetic machines were built at a time when landing most space travelling craft planet side was impossible, and therefore they provided a useful form of public transport for the space faring public. These days they are completely obsolete, and the only people you will find travelling on them are politicians and other dignitaries who still believe that having a ship docked at a space station while you live on

Jade's thoughts This ship is very quick, and you can really do some mean acrobatics — but this is really the only reason why you should buy it. The sad fact is that there just isn't enough room for anything more than a 1MW pulse laser and a missile if you want to hyperspace. Perhaps the only reason to buy this ship is that it looks like the SR-71 Blackbird. My mother used to own one of these.

Krait



Hull mass:	12t (35t full)
Capacity:	27t (drive + 17t)
Thrust:	20g front / 10g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 4 missile
Hyperspace:	(1)8.57 / (2)34.28 / (3)77.14
Drive:	Class 1 standard
Typical cost:	50,000
Designer:	DeLacy ShipWorks
Production:	Falcon DeLacy
In-service:	3027
Allegiance:	Independent

This ageing strike craft is still popular today, if for no other reason that it's use of oversized laser cannons strapped to the outside edges of it's thin body so as to extend the range of any lasers fitted to it — or so the dealers will tell you. Talking of those laser emplacements, there have been many concerns over the original Krait's tendency to fall apart on high G turns — apparently the finger width of welding that held the weapon systems on just wasn't up to the job, and pilots often found themselves on attack runs without any form of offence. It's still a very quick ship to play with, even by today's high standards. Offering a little more room than most combat ships, the Krait is fine for combat, which is probably why pirates favour them quite highly — that and the availability of second hand parts in scrap ship yards.

Bob's thoughts My cousin Arnold got blown away by one of these once. I can still remember the radio message. "I'm getting a blip. My combat computer is on, but I can't see anything out there apart from an asteroid. Hang on, that isn't an asteroid!", and then the group of four Kraits left the piece of rock they were clinging to and went into attack. I love them personally, and often go shooting through the stratosphere in one. Mind you, I'm getting a bit old for this game now. I don't suppose you fancy taking one off me, do you?

Lanner



Hull mass:	53t (245t full)
Capacity:	198t (drive + 153t)
Thrust:	8g front / 4g retro
Crew:	3
Fuel scoop:	Possible
Mounts:	2 gun, 2 missile
Hyperspace:	(2)4.98 / (3)11.02 (4)19.59 / (5)30.61
Drive:	Class 3 standard
Typical cost:	284,000
Designer:	Michael Lanner
Production:	Core Industrial Corp.
In-service:	3240
Allegiance:	Indep., Fed., Alliance

Michael Lanner is a very simple man with a very simplistic view on life. He believes that all things should be basic and functional, and that would explain his first ever interstellar creation — the Lanner Mark I. This trading ship is about as close to the knuckle as you are going to get, with almost no optional extras, but with a hell of a lot of trading space. Its look is one of a clean cargo carrier, which is probably why so many trading companies have bought these in droves to use as freight vehicles.

Bob's thoughts Man, where did this guy learn to design ships? Imagine a box with an engine stuck to the back of it, and you've got a Lanner. Sure, it does the job fine and there are plenty of good reasons to own one, but couldn't he have jazzed it up just a little bit? I know different people have different tastes, but I'm sure that no-one is going to get excited about a large grey cube rumbling through space carrying a tonne or two of dead animals. Buy one if you really have to make some money fast, as they make great trading ships, but don't expect to be the envy of the space lanes in it.

Jade's thoughts While not the most attractive ship around, the Lanner is a fairly average trading ship. You'll be able to fit a reasonable selection of weapons in this ship, and the cargo capacity will enable you to make reasonable profits. A Class 3 Military Drive is a good purchase, as you'll be able to fit more shield generators into the space. I can recommend you buy this ship, but you won't look cool in it. I wonder what cubes look like in Bob's world? This looks nothing like one. The only space ship I've seen that looked like a cube was the Borg ship.

Lanner Mk II



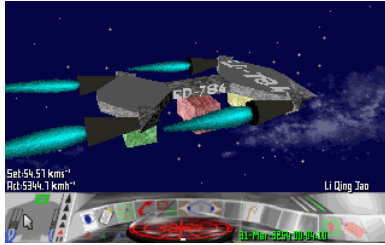
Hull mass:	60t (271t full)
Capacity:	211t (drive + 166t)
Thrust:	7g front / 4g retro
Crew:	3
Fuel scoop:	Possible
Mounts:	2 gun, missiles
Hyperspace:	(2)4.42 / (3)9.96 (4)17.71 / (5)27.67
Drive:	Class 3 standard
Typical cost:	310,000
Designer:	Michael Lanner
Production:	Core Industrial Corp.
In-service:	3247
Allegiance:	Indep., Fed., Alliance

The Lanner Mark II is an attempt to make the Lanner slightly more of a specialist ship. The size of the ship has been increased to make it more appealing to the average trader, but the extra size has made the craft far more sluggish. Many people have said that the only place to fly a Lanner Mark II is right in the central systems, and even then only in the completely safe areas, as it is a bit of a sitting duck for piracy. A slight improvement over the original in places, but when compared to craft like the imperial Trader and the Griffin, Michael Lanner still has a long way to go.

Bob's thoughts So Mr. Lanner thought he would try again did he, after that abysmal box with wings. What did he come up with? A more stylish design? A bit more muscle? More of a fighting chance? No, he increased the cargo capacity, made the whole thing heavier and reduced the relative strength of the engines. Great. So for a little bit more money, you can have a craft that can carry a bit more, but flies like a brick. OK, I can, understand the really hard up shelling out for something like this, but I fail to understand why anyone else would consider it.

Jade's thoughts Personally, I think that Bob must have lost a card game to Michael Lanner once and hated him ever since as I don't think that the Lanner II is that bad. Okay, it's sluggish, but at the point in your career where you can afford one you will probably be more interested in making money from trading or the amount of shields and weapons you can squeeze into your ship. A decent pilot with a reasonable level of shields will be fairly safe in this ship.

Lifter



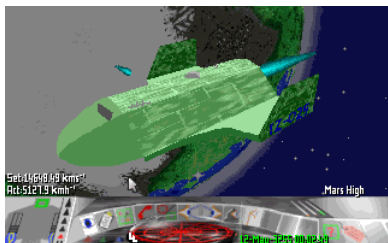
Hull mass:	3t (10t full)
Capacity:	7t (drive + 3t)
Thrust:	4g front / 2g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	None
Hyperspace:	None
Drive:	Interplanetary drive standard
Typical cost:	16,000
Designer:	Saud-Kruger Astro Design
Production:	Saud-Kruger Astro Works
In-service:	Unknown (pre-2500?)
Allegiance:	Federation

The Lifters were once the force that kept early space stations, known as Dodec's due to their dodecahedron shape, going. Before the time of anti-gravity cranes and hydrolifts, the lifters were the craft that would slowly carry and guide your craft to the exit ramp. Now consigned to the scrap heap, these ships can be bought quite cheaply and make ideal training vessels, partly due to the fact that they have a quarter of the controls of most craft, but mainly because no-one would really care if a learner were to crash it. No hyperspace capacity, no guns and a very basic engine make this just about a craft.

Bob's thoughts Who the hell put these on the market? What kind of fool would pay good money for a milk float? I wouldn't give my three year old son one of these for his birthday, if I had a three year old son, that is. There is no point at all in owning one of these ships, apart from the fact that in some systems you can buy one of these for less money than an escape capsule, although it's got none of the speed or class.

Jade's thoughts No one really knows why these are available for sale. No weapons or hyperdrive capability (unless you're prepared to wait a year for the drive to fail, then replace it with a Class 1 Military Drive), and very little acceleration, these are by far the cheapest ships around. However, there is absolutely no reason why you should buy one.

Lion



Hull mass:	65t (300t full)
Capacity:	235t (drive + 190t)
Thrust:	5g front / 3g retro
Crew:	4
Fuel scoop:	Possible
Mounts:	3 gun, 8 missile
Hyperspace:	(2)4.00 / (3)9.00 (4)16.00 / (5)25.00
Drive:	Class 3 standard
Typical cost:	384,000
Designer:	Gupta Industrial Corp.
Production:	Gupta Industrial Corp.
In-service:	3182
Allegiance:	Federation

One of the smaller trading ships, the Lion was an attempt to break away from the angular look of most craft, and combine gentle elegance with smooth lines and durability. The result was a ship that is generally ignored by all, mainly due to the fact that it looks like a bubble. It is a good sized craft, though, and perfect for those just about to enter the trading market for the first time. It's large array of weapon mountings make it quite a safe craft to travel in — which it would need to be as it doesn't really have any acceleration to speak of. Lion pilots are known, therefore, for their dazzling slingshot manoeuvres around smaller stars as a way of getting up to speed within a week.

Bob's thoughts Let me tell you, there is nothing mighty about this Lion. As a trading ship goes, it does the job fine, but no trading ship should ever try and look attractive. I mean, what's the point of having this luminous yellow paint job that makes it look all jazzy when it comes from the shop, when you're just going to fill it with rocks and carry them from one side of the galaxy to the other? Sure, it's a good ship, but I wouldn't dare enter a populated system with one of these for fear of getting laughed at. Combateers and Elite pilots are the ones who get the looks (and the talent.) Trading ships should look like the people who fly them, scruffy, huge and dirty.

Mantis Transport



Hull mass:	166t (915t full)
Capacity:	794t (drive + 499t)
Thrust:	6g front / 3g retro
Crew:	8
Fuel scoop:	Possible
Mounts:	4 gun, 8 missiles
Hyperspace:	(4)5.24 / (5)8.19 (6)11.80 / (7)16.06
Drive:	Class 6 standard
Typical cost:	1,179,000
Designer:	Mic Turner
Production:	AAAI
In-service:	3237
Allegiance:	Federation, Alliance

When it comes to heavily defended trading craft, you don't get much safer than the Mantis — which is probably why so many security organisations use them as troop carriers. For a relatively small crew, you get a whole lot of firepower in this ship; that little bit extra has left a lot of budding combateers taking this out into the anarchic systems, where a sluggish cruiser is easily outrun and out-battled by the smaller, dedicated combat craft. Its size means it can carry much more in the way of extremely deadly weaponry, and that's why very few people have ever actually died in a Mantis.

Bob's thoughts It may not look like much to you, but this is probably one of the best multi-role craft on the market. Yes, I know it isn't meant to be multi-role, but look at the benefits of approaching it from that angle. Imagine how many passengers you could carry in a craft like this? Imagine how many MB4s you could fit in the back of this one? It is versatility like this which has made the Mantis such a popular ship, especially in the western arm of the galaxy where there are still so many untouched systems. If you've got the money, I'd go for a ship like this. It could make you a very rich person.

Merlin



Hull mass:	8t (35t full)
Capacity:	27t (drive + 17t)
Thrust:	22g front / 11g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	1 gun, 2 missiles
Hyperspace:	(1)8.57 / (2)34.28 / (3)77.14
Drive:	Class 1 standard
Typical cost:	48,000
Designer:	Perez Corp.
Production:	Perez Corp.
In-service:	3247
Allegiance:	Federation, Alliance

One of the most attractive looking combat ships ever seen, the Merlin was

created to kill and maim — and very little else. Very rarely will you find a Merlin with any cargo inside: this goes some way to explaining why space pirates very rarely attack them. Or it could be something to do with the fact that this is an extraordinarily manoeuvrable craft, and is usually stuffed to the gills with weaponry. Its unusually large stabilising fin gives it exceptional turning circles, even at very high speeds, which some people have said makes it quite hard to fly.

Bob's thoughts Now this is what I call a classy piece of design. Just take a look at the lines on that baby! Look at the razor sharp engine lines, look at the curves of the fin, imagine how that thing can slice through space. These kind of looks don't come cheap, mind, so be prepared to put your band in your pocket for this one. Mind you, once you've got one of these surrounding you, you're more or less guaranteed a safe life.

Moray 'Starboat'



Hull mass:	17t (87t full)
Capacity:	70t (drive + 45t)
Thrust:	14g front / 6g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	1 gun, 4 missiles
Hyperspace:	(1)3.44 / (2)13.79 / (3)31.03
Drive:	Class 2 standard
Typical cost:	109,000
Designer:	Marine Trench Co.
Production:	Marine Trench Co.
In-service:	3028
Allegiance:	Independent, Federation

Here's an example of a ship design going rogue. In the early days of the Elite Federation Of Pilots, a very small and privileged section of society owned space craft. The rest of the galaxy had to make do with taxi rides and pleasure cruises, and the craft most often used on these pleasure cruises was the Starboat. Gentle craft with plenty of room for passengers and in-flight entertainment, these fish-like ships would drift slowly through space, searching for the best views and the best photo opportunities. Then a pirate by the name of Emile Rogers got hold of one, and managed to take out half of the imperial installations on Vequess with it. Once that happened, every pirate in the galaxy wanted one, and they were getting hijacked left, right and centre. The pleasure cruise industry died, and the morays are now left on the outskirts of systems, waiting to take out the next craft that enters from Hyperspace.

Bob's thoughts They look silly, sure, but once you come up against one of these things armed to the teeth, you won't feel like laughing. Morays can really shift when they're up against it, and the people who fly them are usually dedicated enough to fly like they are always up against it. If you want to get into piracy yourself, then nothing will send you up the ladder as quickly as owning one of these. Best of all, even though it's a large ship, you can fly it solo, so you don't have to worry about splitting your dough with a partner!

Osprey Attack Fighter



Hull mass:	4t (15t full)
Capacity:	11t (drive + 5t)
Thrust:	27g front / 8g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 2 missiles
Hyperspace:	(1)20.00
Drive:	Class 1 military standard
Typical cost:	45,000
Designer:	Imperial Navy Research Dept.
Production:	Imperial Shipyards, Vequess
In-service:	3147
Allegiance:	Empire

Some people thought that the Empire had it completely sewn up when it comes to high speed, low cost attack fighters. Just to prove them right, those marvelous Imperials recently came out with the Osprey Attack Fighter. Yet another single seat fighter, built for speed and manoeuvrability, this craft was originally designed as a ground attack ship, with its huge swept wings giving it unnaturally stability at low altitudes. A few minor engine modifications later and the craft is one of the best dedicated assault craft in the galaxy. It doesn't quite match the speed or agility of the Eagle Long Range Fighter Mark III, but comes a fairly close second place.

Bob's thoughts Fast, fit and not too flashy — this is the ideal assassin's ship. Stick a combat computer and a hyperspace cloud analyser in this baby and you'll find anyone anywhere and have the speed and fire power to hunt them down. All in a ship that's so common in the Imperial Navy that there's no chance of anyone taking you on without a seriously good reason. A solid investment if you're planning a shady career.

Jade's thoughts Bob obviously lives in his own little world, as this ship is pretty useless because of the miniscule cargo capacity. It is the ideal assassin's ship only if your idea of fun is chipping away with a 1MW Pulse Laser. Don't bother, as the Police will probably kill you before you get your target. Yes it's fast, yes it handles well, but you'll be hard-pressed to get any real hitting power into the tiny hull. Your only chance of survival is the fact that these ships are very difficult to hit with lasers. Unfortunately, most ships have missiles these days. . .

Osprey X



Hull mass:	6t (35t full)
Capacity:	29t (drive + 23t)
Thrust:	29g front / 9g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	2 gun, 4 missiles
Hyperspace:	(1)8.57 / (2)34.28 / (3)77.14
Drive:	Class 1 military standard
Typical cost:	69,000
Designer:	Gutamaya Corp.
Production:	Gutamaya Corp.
In-service:	3250
Allegiance:	Empire

A brand new ship, the Osprey X is a drastically scaled-up version of its predecessor. The designers added another wing, giving it an unmistakable X-shaped look head on — hence its name. Despite being over twice the size of its smaller sibling, the X is actually faster! It now has a respectable 4 missiles, and pilots are now able to have a much better armed ship.

Jade's thoughts This ship is the undisputed king of the light fighters. The designers have solved many of the problems of the class, by increasing the capacity while managing to retain the speed which make this type of ship so popular. You'd be hard pressed to choose between this and the Eagle Mark III — and I think that this ship edges it. If you want a light fighter, buy an Osprey X, since it's the best there is! The only drawback is that, being a new ship, the X is very hard to find.

Panther Clipper



Hull mass:	400t (2500t full)
Capacity:	2100t (drive + 1400t)
Thrust:	6g front / 3g retro
Crew:	15
Fuel scoop:	Not possible
Mounts:	4 gun, 8 missiles
Hyperspace:	(5)4.22 / (6)6.08 (7)8.28 / (8)13.69
Drive:	Class 8 standard
Typical cost:	2,753,000
Designer:	Gerege Federation Spaceworks
Production:	Gupta Industrial Corp.
In-service:	3185
Allegiance:	Federation

The Panther is currently the largest ship available to the public at the moment. Although a select few are able to get their hand on Dreadnoughts, the rest of us have to make do with the gigantic two and a half thousand tonne beast that is the Panther Clipper. This is a true trading ship, a giant of a cargo carrier and the only craft at the moment capable of carrying a large Plasma Accelerator

along with all the other weaponry currently available. Heavily armed, this craft is completely unstoppable — which is a good thing when you realise that just about every pirate there is will try and take it out at a moment's chance. Life membership of the Panther Owner's Group is a sure sign of a Commander with serious hours clocked up in the cockpit. One word of warning: the Panther is a very expensive beast to run, with it's list of fifteen crew and the fact that it drinks hydrogen fuel like a spoilt child drinks megacola.

Bob's thoughts If you can afford to buy one of these, why are you bothering to work? I honestly cannot understand the greed of traders. Sure, some people want to make a bit of money here and there, but to buy one of these and then trade with it is a crime against humanity. I've known guys that have taken a planet's entire food supply in one of these. He came back because he got the food cheap, and found that the entire population had died of starvation*. Ah, those eccentric aristocrats.

Jade's thoughts This is one of the biggest ships around. There is enough space in this ship for a Large Plasma Accelerator and all of the equipment you could possibly need. This is perhaps the best trading ship, and you will quickly make a vast amount of money because of the huge amount of cargo this ship can carry. If you're a trader, you'll find this ship fits your needs perfectly. It's a huge ship, and, providing you have enough shields fitted, almost completely safe. You only really need to worry about ships carrying beam lasers of 20MW or more. Several Panther pilots have been known to not bother shooting at small to medium sized ships, preferring to ram them instead. It's just as well it's safe, as it is too sluggish to be effective in combats.

Puma Shuttle



Hull mass:	175t (1000t full)
Capacity:	825t (drive + 575t)
Thrust:	6g front / 3g retro
Crew:	9
Fuel scoop:	Possible
Mounts:	4 gun, 8 missile
Hyperspace:	(4)4.80 / (5)7.50 (6)10.80 / (7)14.70
Drive:	Class 6 standard
Typical cost:	1,265,000
Designer:	Gerege Federation Spaceworks
Production:	Gupta Industrial Corp.
In-service:	3179
Allegiance:	Federation

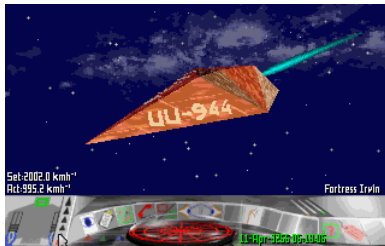
Another of the giant class of trading ships, the Puma Shuttle is a cut down version of the Panther, offering the same engine capacity and weaponry, but a seriously reduced hull. Some people call it 'a Panther that's lost its butt',

*This, and other stories, like the time 'my friend's uncle flew through a star while changing channels on the radio' can be found in a new publication called 'My Friend's Uncle — a Guide To Space Myths, priced 10 credits.

but even so it has proved incredibly popular in the Federation areas of space. Like all trading ships, it gets attacked by pirates with frightening rapidity, but happily manages to survive most attacks by virtue of having a surrounding volley of laser cannons and an incredibly thick hull. Some have said that the crew size is far too excessive for a ship of this size, but it's ancient design makes the overcrowded cockpit necessary.

Bob's thoughts I had a guy down here the other week. He told me he wanted a Panther, but wondered if it was too heavy for his planet's gravity. So I sold him a Puma as a Panther Lite, and he bought it — in every sense of the word. This is a working trade ship, one that you will be able to afford to buy, and will then have to work like no-one's business to finish paying for it. It could do with a bit more speed, but then beggars can't be choosers. Ff ifs and buts were horses, then beggars could ride. A bird in the hand makes a mess on the wrist. You know what I'm saying?

Python Freighter



Hull mass:	100t (500t full)
Capacity:	400t (drive + 320t)
Thrust:	10g front / 4g retro
Crew:	7
Fuel scoop:	Possible
Mounts:	2 gun, 4 missile
Hyperspace:	(3)5.40 / (4)9.60 (5)15.00 / (6)21.60
Drive:	Class 4 standard
Typical cost:	575,000
Designer:	Whatt&Pritney ShipConstruct
Production:	Whatt&Pritney ShipConstruct
In-service:	2700
Allegiance:	Independent

Of all the trading ships, the Python is the most classic. It is a beautiful designed ship — and one that combines elegance and strength like no other. Simple and effective, this is a wonderful ship to own. It doesn't rate as highly in the speed stakes as it used to, and for a trading ship it is poorly defended, but these mighty craft were once the things that held intergalactic trading together, and for that reason alone most traders feel obliged to own one sooner or later. Also, once you've flown one for a while, you'll really begin to appreciate how far down the line we have come.

Bob's thoughts When I was just starting out, I used to follow Pythons. No, I'm not strange. Pythons are very graceful in flight, with none of the harsh banking and twisting that most ships seem to do these days. If you don't believe me, get behind one and follow it. They have this amazing little roll as they stroll along that makes it all look so easy. I used to wonder if I would ever own one. Now I just wonder if I can ever sell it.

Saker Mk III



Hull mass:	6t (29t full)
Capacity:	23t (drive + 7t)
Thrust:	26g front / 12g retro
Crew:	1
Fuel scoop:	Not possible
Mounts:	1 gun, 2 missile
Hyperspace:	(1)10.71 / (2)42.85
Drive:	Class 1 standard
Typical cost:	43,000
Designer:	Mic Turner
Production:	AAAI
In-service:	3198
Allegiance:	Federation, Alliance

In recent years, the Saker Mk III has become the mainstay of the New Rossyth Shipyards production team. Developed as a modern all-round craft, it was designed by Mic Turner to carry out most tasks with maximum efficiency. As a result it has quickly become one of the most popular ships in the skies, rivalling even the mighty Cobra Mk III for versatility. It has enough cargo space to handle most taxiing and courier jobs, and a large enough capacity for weaponry to make it a fearsome fighting machine.

Bob's thoughts The one question I am most asked about the saker is 'why are the wings swept forward like that?'. I'm the first to admit that they're not the way I would place them, but I am assured by certain sources that they act as stabilisers in low altitude flight, as well as protecting the main cabin from the risk of an engine explosion. It doesn't stop it from looking like an expensive bottle opener, I know, but this is one hell of a popular ship — and hey, I'm just trying to run a business here.

Jade's thoughts This is a good entry-level ship. It's fast, manoeuvrable, and has a reasonable cargo capacity.



Alliance Joint Navy The Saker has been an extremely successful design in the civilian market as a small trader/bounty hunter. It is also the New Rossyth shipyard's first successful 'native' design. Thought to be a little wimpy by many due to its small size, it has been used very successfully by the Alliance

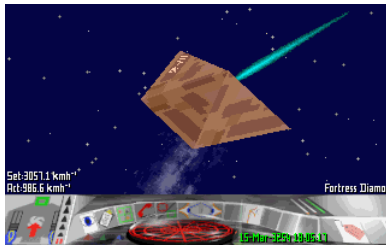
Joint Navy once custom equipment had been designed for the ship. The AJN versions are mainly carrier based, and so do not need space for a hyperdrive (instead they use a custom-built AAAI prime-mover). The hyperspace-capable support variety uses a drive derived from the class 4 military drive.

- T.3 Planetary attack trainer
- T.4 Space defence trainer
- FGA.1 Interceptor/planetary attack (hyperspace capable)

- F.4 Carrier-deployed interceptor/planetary attack

Should it become necessary, trainer versions can be used in combat conditions. Currently, the AJN at Dublin Citadel has a fleet of 35 T.3's and 60 T.4's for advanced combat training. Individual systems have varying fleets of the two trainer types, mainly T.4's. Most Alliance members have a substantial number of FGA.1's in their defence fleets.

Sidewinder



Hull mass:	8t (33t full)
Capacity:	25t (drive + 15t)
Thrust:	23g front / 12g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	1 gun, 0 missile
Hyperspace:	(1)9.09 / (2)36.36 / (3)81.81
Drive:	Class 1 standard
Typical cost:	44,000
Designer:	Falcon DeLacy
Production:	Spalder & Starblaze
In-service:	2982
Allegiance:	Independent

The most famous attack craft ever, the Sidewinder was once the only ship pirates were ever seen in. Deceptively small looking, due to its narrow frame and centre mounted laser cannon, this sleek little ship still keeps up with the latest technology, seemingly effortlessly — a tribute to the forward thinking designers, whose names are now lost in the mists of time. The lack of missile pylons was considered a mistake at the time, but the speed of the ship means that it can take out most craft long before a missile would ever reach them, and the reduced weight gives the craft superb handling and braking power. Somehow there is room in there for 25 tonnes of cargo space — again another tribute to the designers — so there are plenty of reasons to dictate why this ship is still as popular today as it ever was, even in the face of some stiff opposition.

Bob's thoughts If killing is your business, then a ship like this will ensure that business is always good. Lethal from laser tip to engine, this is a cruel machine, that instils an almost heartless quality to your bounty hunting — which is probably why I sell so many of them. Everyone wants to be the bad guy every once in a while, right? You could use it for trading if you wanted, I suppose, but then you lose your powerful laser and your only attack mechanism is removed, which leaves you deader than leaves on the line, if you get what I'm saying.

Skeet



Hull mass:	135t (562t full)
Capacity:	427t (drive + 277t)
Thrust:	9g front / 4g retro
Crew:	6
Fuel scoop:	Possible
Mounts:	2 gun, 6 missile
Hyperspace:	(3)4.80 / (4)8.54 / (5)13.34 (6)19.21 / (7)26.15
Drive:	Class 5 standard
Typical cost:	698,000
Designer:	Mic Turner
Production:	Whatt&Pritney ShipConstruct
In-service:	3228
Allegiance:	Federation, Alliance

The Skeet was an attempt to create a whole new look for craft. Unlike most cargo ships, bulky and graceless, the Skeet is elegant and sophisticated in appearance – yet just as capable of lugging huge loads around the wastes of space as the most dowdy looking craft. Some were very put off by its soft appearance, though, as most traders view themselves as having the same image as their ships — strong, rough and rusted at the corners. So the Skeet, while perhaps being a look at things to come, still sits in the bargain bucket waiting for a more open minded breed of trader to evolve.

Bob's thoughts If you took a half moon and stuck a pilot on it, you'd have a Skeet. Whoever thought that something so sissy-looking would ever appeal to the kind of person who like ripping beer kegs open with their teeth? Sure, it looks fantastic and ever so futuristic, but come on... the only kind of kid that's going to buy this is the rich kid who wants to have a bigger ship than everyone else, but doesn't want to run the risk of getting rust poisoning every time they bump into a wall. Yeah, it's a nice ship and all, but I wouldn't sell it.

Spar



Hull mass:	12t (49t full)
Capacity:	37t (drive + 12t)
Thrust:	17g front / 9g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	1 gun, 2 missile
Hyperspace:	(1)6.12 / (2)24.48 / (3)55.10
Drive:	Class 2 standard
Typical cost:	71,000
Designer:	Perez Corp.
Production:	Perez Corp.
In-service:	3247
Allegiance:	Federation, Alliance

The Spar has to be one of the most wicked fighting craft around. Sleek and sharp, it has all the looks and charm of a panther about to strike. It was

created primarily to scare — something that it seems to do very well indeed, although its capacity for a frightening amount of weaponry would seem to have a lot to do with that. The Spar is bought primarily by pilots who want to rise to the rank of Elite extremely quickly, and are ready to go out and do as much damage to as many ships as they possibly can, in as short a space of time as they can.

Bob's thoughts This is one mean ship to be seen in. I've seen the classiest people in the skies flying these babies, and one look at it gives you all the reason you could need. This is one of the best looking ships I've ever come across, and if I were twenty years younger, you might find me flying one of these — I used to be quite a cool guy, you know, although you might not think it to look at me now. I had more hair then, and perhaps the inches around my waist were a lot closer to my shoulders, and I would have looked great flying one of these things. Seriously though, if all you want out of life is the chance to hurt lots of people as quickly as possible, then you couldn't do much better than get one of these babies.

Jade's thoughts This is the ship that gave Perez Corp. their reputation as producers of the meanest weaponry around.

Tiercel Freighter



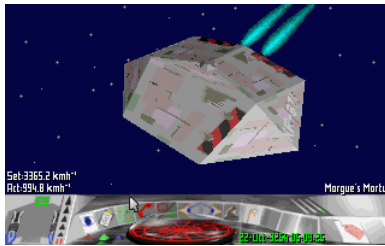
Hull mass:	71t (328t full)
Capacity:	257t (drive + 177t)
Thrust:	10g front / 4g retro
Crew:	4
Fuel scoop:	Possible
Mounts:	1 gun, 6 missile
Hyperspace:	(2)3.65 / (3)8.23 / (4)14.63 (5)22.86 / (6)32.92
Drive:	Class 4 standard
Typical cost:	400,000
Designer:	Core Industrial Corp.
Production:	Core Industrial Corp.
In-service:	3219
Allegiance:	Federation, Alliance

Art must creep into any and every kind of design, and ship design is really no exception. In the same way that some ships are designed with a pragmatic eye, others are created as things of beauty, and this craft definitely belongs in the latter group. A medium sized combat craft, or a small trading ship depending how you look at it, this ship was built to travel at very low altitudes and sun-skim with stability thanks to its enormous wings, which combat the instabilities in most atmospheres with ease. Surprisingly they don't add too much in the way of drag, as the ship can still pull some very nifty manoeuvres.

Bob's thoughts It might seem like a really large ship to a lot of people, but those are probably the same people who think a Crane fly is far, far bigger than an ordinary fly. It isn't. It just looks bigger because it has these way out of

proportion wings that cast a gigantic shadow over everything. Not that I want to be damning about art, you understand — I think that beauty is in the eye of the beholder, and while this thing might fly like a dream on a spring morning, there's no way you're going to get me to fly one. That would be like putting shoulder pads in a zoot suit, as far as I can see. What I'm really trying to say is that it wouldn't suit me.

Tiger Trader



Hull mass:	80t (400t full)
Capacity:	320t (drive + 240t)
Thrust:	12g front / 5g retro
Crew:	5
Fuel scoop:	Possible
Mounts:	3 gun, 1 missile
Hyperspace:	(2)3.00 / (3)6.75 / (4)12.00 (5)18.75 / (6)27.00
Drive:	Class 4 standard
Typical cost:	472,000
Designer:	Core Industrial Corp.
Production:	Core Industrial Corp.
In-service:	3166
Allegiance:	Federation

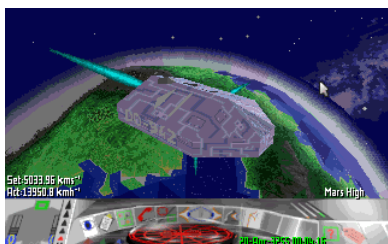
Some have criticised the Federation's league of ship designers for having no vision, and many of those quote the Tiger Trader as the perfect example. If you went to someone who had never seen a ship before, and told them to build the most basic trading ship they could think off, they would probably design the Tiger — a freight box with an engine stuck on it. Medium engine power, no weapons to speak of and a very average cargo capacity make this one of the most uninspired ships ever to be released. Surprisingly, it has a very large cult following, and Tiger owners congregate once a year near Diso to celebrate the joys of owning one by reading long lists of all the systems they have visited in it.

Bob's thoughts Yawn-a-rama, you get me? If you are in to trading, but only for a very short space of time (like only long enough to get the cash together to do something more exciting) then and only then you might consider flying one of these. Once you've got one, my advice is stick to the safe systems and surrender at the first sign of trouble. This crate has no defence at all, and the hull looks like you could poke your brush through it while touching up the paintwork.

Jade's thoughts Rumour has it that the Federation held a competition to design the most boring and unimaginative ship possible, and the winning entry was the Tiger Trader. Historians tell us that during the late 20th century there was a motor car called the Volvo Estate, which had been designed with just a ruler and a set square, so as to resemble a brick. While not quite that bad, the Tiger isn't exactly a design classic. The Tiger is an entry level trading ship, with a good amount of space for moving cargo around. In common with most trading ships, the Tiger has quite a bit of flexibility in terms of weapons layout, with three laser mountings. There is just enough room to fit a 100MW Beam Laser,

but a 20MW one is a much more practical solution. Two missile pylons aren't much, but in practice this doesn't pose much of a problem as your front laser will be used most of the time. This ship is a good entry into serious trading, and with a well thought out equipment configuration is a good buy until you can afford a more specialised ship.

Transporter



Hull mass:	40t (200t full)
Capacity:	160t (drive + 115t)
Thrust:	9g front / 4g retro
Crew:	3
Fuel scoop:	Not possible
Mounts:	3 gun, 2 missile
Hyperspace:	(2)6.00 / (3)13.50 (4)24.00 / (5)37.50
Drive:	Class 3 standard
Typical cost:	241,000
Designer:	Lakon Spaceways
Production:	Gupta Industrial Corp.
In-service:	Pre-2500
Allegiance:	Independent, Federation

Despite its name, the transporter is actually a small trading craft, and not a fleet carrier. The name is the one thing that seems to have put a lot of people off this small, easily managed craft. This is a pity, since those who actually buy and fly them never seem to want to let them go. Comfortable to fly, and offering your average pilot over 100 tonnes of free cargo space, these are very popular among the mining fraternity — and one look at the low, flat front of the ship is enough to see why. Not the best ship for combat, as its shape gives it far too many blind spots for it to have a chance, this is a ship for the peaceniks of the galaxy.

Bob's thoughts This has to be one of the cheapest ships I have ever come across — the Lifter and the Interplanetary Shuttle not included — and it isn't hard to see why. This thing is of less use than an escape capsule with a broken engine. Okay, so you might be able to do a little bit of trading in it, or a tiny bit of mining, or even the odd bit of combat against stationary objects, but other than that you would be well off away from this kind of thing. Give it to your friends when you get bored of their company and would rather no see them again.

Valiant Class Capitol Ship

(This ship is not available to private individuals.)

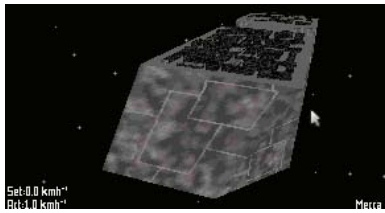
Alliance Joint Navy The Valiant class was developed by the Alliance Joint Navy in response to the Veliaze Crisis. It looks like a bulk carrier because that is precisely what it is. Without the time to develop a new ship, the AAAI shipyards at New Rossyth had to rapidly turn the commercial freighters into capable battleships. Surprisingly for such a rushed design, the Valiant class has

proven to be an extremely capable battlecruiser on a par with its Federation and Imperial counterparts. The ships are usually outfitted with 12 large plasma accelerators, routed through gimbaled turrets. Propulsion is provided by three custom built AAAI prime-movers and 15 bridged Class 4 hyperdrive systems. The amount of equipment packed into the hull leaves little room for living accommodation, and the ships are rather cramped. Good shift planning by the administrative office is employed to ensure that crew rest and rosters are scheduled such that the ship's space is utilised to the maximum.

All the ships are equipped with external docking clamps so they can act as a limited form of carrier and resupply ship, being able to handle ships up to the size of the Asp. The hyperspace capability of this vessel allows it to hyperspace with externally attached ships, allowing defence craft to be carried. This means the defence craft need no hyperdrive and have more room for defensive equipment. The usual load is 40 Cobra, Harris or Asp type vessels plus support crews on this kind of mission.

Victor Class Capitol Ship

(This ship is not available to private individuals.)

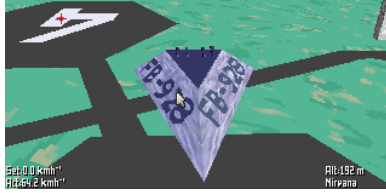


Alliance Joint Navy The Victor was developed by the Alliance Joint Navy. It is very similar in appearance to the Valiant class capital ship, but with a number of refinements to its structure. After the success of the Valiant, the AJN Procurement Administration decided an upgraded Valiant

would fill a longer term requirement of the AJN. The Victor was designed from the ground up by New Rossyth Shipyards and bears little structural similarity to its predecessor. These ships are an awesome sight in space, dwarfing even Dublin Citadel. Crew compliment depends on the mission. The ship can function with as few as 30 crew members. The more usual operational crew compliment is around 70 with as many 2000 other support personnel. The ship can remain in deep space for years at a time with a full crew compliment. The vessel can also serve as a carrier. All Victors carry a few other spacecraft (usually Sakers or Viper II), but the AJN Ramillies, Warspite, Hood and Ark Royal are configured as full time carriers holding up to 250 Saker F.4 space defence craft plus their support crews. All Victors are equipped with docking clamps with integral fuel bays to support larger ships. The larger ship lands on the upper surface of the Victor and is resupplied via an automatic system. A Victor with three Explorers piggybacked taking supplies is rather reminiscent of a pig feeding its piglets, hence the crews have started nicknaming the Victor the BUFS (standing for 'Big Ugly Fat Swine').

Propulsion is provided by three custom prime mover thrust drives developed by AAAI, and hyperspace capability is provided by multiple bridged military drives. The hyperdrive capability varies depending on the mission. Standard defences consist of 16 batteries of quad-beam 525 n.m. new technology lasers rated at 0.5GW each.

Viper Defence Craft



Hull mass:	12t (35t full)
Capacity:	27t (drive + 25t)
Thrust:	20g front / 10g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	1 gun, 4 missile
Hyperspace:	(1)4.61 / (2)18.46 / (3)41.53
Drive:	Class 2 standard
Typical cost:	87,000
Designer:	Faulcon Manspace
Production:	Faulcon DeLacy
In-service:	2762
Allegiance:	Indep., Fed., Empire

The Viper has been the craft that has kept the galaxy on its toes for hundreds of years, and it's still going strong. Finally made available to the public in the last 60 years, the Viper has proven time and time again that it is one of the only ships to own if you are going out for a life of combat. Its basic triangular design is enough to place fear in the hearts of most pilots, be they guilty or not, and the oversized main and retro thrusters give it more than an edge when entering into combat. Strangely enough, though, it isn't as exciting to fly as the Police make it look, which goes some way to crediting the Police on the calibre of their space borne officers. One thing to watch out for when flying a Viper is that sometimes you will find yourself under far heavier attack than the system calls for. This is probably due to you being mistaken for a Police ship, and is nothing to worry about. We would strongly advise against pretending to be a Police officer in one, as this is an executable offence.

Bob's thoughts The Viper Defence Craft is, without a doubt, one of the status symbols of the galaxy. They are a real dog to fly at times, needing some serious muscle on the joystick to get them to bank the way the police fly them. Between you and me, I think all the Police models are rigged, making them far easier to fly, and then they let joe Public fly this kind of thing to make themselves look like fabulous pilots. If you want a mean craft to go cruising in, then this is the one to have, but be prepared to put the months in if you want to be able to fly this bucket with any grace at all.

Jade's thoughts Now this takes me back! As the galaxy became a lot less safe due to the increase in pirate activity, the police forces realised that unless they got a ship capable of combating the pirate threat then anarchy would reign. They held a competition to develop a police fighter and invited the major shipyards to submit designs. The surprise winner was the Viper, designed by the relatively unknown Faulcon Manspace (now Faulcon De Lacey). The first Viper flew in 2762, and over the years made Faulcon Manspace a huge amount of money. Although the Viper II is now entering service in many systems, the Viper Defence Craft is the police ship you are more likely to encounter. Both Vipers have been available to the public since 3142 when the authorities lifted their ban on sales of Vipers to people other than police forces. Consequently, Faulcon De Lacey has been promoting the Viper vigorously in the civilian market over the

past few years, and many pilots now own one. The Viper is a good ship to own if combat's your game, as it is quite fast and handles well. The hyperspace range is pretty good, and the fuel scoop option is worth taking. A military drive will also come in handy. If you have a quite a bit of money, you may rather have a Viper II, but this ship should be adequate for your needs.

Viper Mark II



Hull mass:	15t (67t full)
Capacity:	52t (drive + 27t)
Thrust:	25g front / 11g retro
Crew:	1
Fuel scoop:	Possible
Mounts:	1 gun, 4 missile
Hyperspace:	(1)4.47 / (2)17.91 / (3)40.29
Drive:	Class 2 standard
Typical cost:	89,000
Designer:	Falcon DeLacy
Production:	Falcon DeLacy
In-service:	3195
Allegiance:	Federation, Alliance

As craft improved over the generations, the police found it increasingly difficult to keep up with the new technologies. The time had come to create a brand new kind of police vehicle, and that vehicle comes in the shape of the all new Viper Mark II. Larger and faster than the previous incarnation, the Mark II is also one of the best styled craft around, capable of gliding through even the most turbulent airspace without the slightest judder. This styling gives the craft a real edge over the opposition, making the police meaner and more dangerous than ever before.

Bob's thoughts Aerodynamic perfection. That's really the only way I can describe this ship. I don't know what the police were thinking about when they designed this, but it can only have been to build something that would make the most hardened criminal think twice about parking on a double yellow line. This is one fearsome ship, believe you me. It may look all mean and tough on this page, but to really see how scary it is, open fire on a space station and get ready to soil your suit. Intimidation is not the word. Or maybe it is. I was never any good at English.



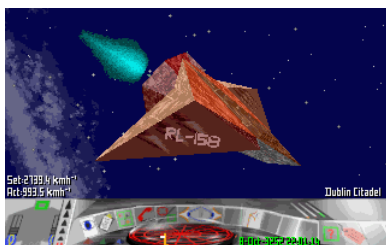
Alliance Joint Navy Specifically designed as a police craft, it is not surprising that the ship is used as the Alliance Joint Navy's police force's patrol craft. That's not all that it's used for though. It is also used as a light attack fighter by several Alliance members. Since it is designed for short range patrolling and defence, this is the use the naval units put it to — rear-guard defence patrols and interdiction. It is also equipped to be carried by the Victor class battle-cruiser for deep space patrols (usually to protect the cruiser). The Viper 2 is built under license in many Alliance systems, and local systems tend to

have their own agreements with local shipyards to construct this vessel to AJN specifications.

- F.1 Standard police version, used by civilian as well as military police
- F.3 Rear-guard defence/battlecruiser protection version

There are only minor differences between the F.1 and F.3 (neither of which are hyperspace equipped). The F.1 has a standard 1MW beam laser, while the F.3 has the more expensive new-technology, 560 n.m. wavelength dual beam 2.5MW beam laser. Both versions are equipped to carry up to four standard NN-550 missiles.

Wyvern



Hull mass:	35t (183t full)
Capacity:	148t (drive + 103t)
Thrust:	13g front / 6g retro
Crew:	3
Fuel scoop:	Possible
Mounts:	2 gun, 2 missile
Hyperspace:	(2)6.55 / (3)14.75 / (4)26.22
Drive:	Class 3 standard
Typical cost:	222,000
Designer:	Mic Turner
Production:	AAAI
In-service:	3237
Allegiance:	Alliance

The Wyvern was an attempt to combine a larger trading ship with a faster multiple-role craft, and it was an attempt that nearly worked. What the designers ended up with was a craft that had almost enough cargo room to be a trading ship, and almost enough speed and kick to be a combat craft. It may have fallen between two stools in many people's eyes, but to others it acts as a great all-rounder.

Bob's thoughts There was a time when there was a hell of a demand for ships like this, strange as it may seem. Round about the time that the Imperial Cruiser went out of fashion, ships like this one came in. All of a sudden everyone wanted a bit of freedom in what they could and couldn't do in their space time, and ships that acted as 'jacks of all trades' became all the rage. It was great at the time because everyone was learning new skills and expanding themselves, but like all great times of expansion, the market suddenly gets flooded by a whole range of specialised and infinitely superior craft, and I'm left with a warehouse full of these things.

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